

DETERMINANTS OF QRIS REUSE INTENTION AMONG BUYERS AND MSME MERCHANTS IN BANYUMAS RAYA

Satria Candra Wibowo, Retnaningsih, Sendy Watazawwadu'Ilmi*

School of Business, IPB University
Jl. Raya Pajajaran, Bogor 16151, Indonesia

Article history:

Received
10 September 2025

Revised
3 March 2026

Accepted
9 April 2026

Available online
29 May 2026

This is an open access
article under the CC BY
license (<https://creativecommons.org/licenses/by/4.0/>)



Abstract:

Background: QRIS (Quick Response Code Indonesian Standard) is a national digital payment initiative aimed at standardizing electronic transactions and enhancing financial inclusion. While QRIS adoption is growing nationally, significant disparities persist across regions, particularly among micro, small, and medium enterprises (MSMEs) in areas like Banyumas Raya.

Purpose: This study aims to identify the key factors influencing users' and MSMEs' behavioral intention to continuously reuse QRIS in the Banyumas Raya region of Central Java.

Design/methodology/approach: The research adopts a quantitative method based on the Technology Acceptance Model (TAM). Data was collected from 155 respondents (115 users and 40 MSMEs) using purposive sampling. Structural Equation Modeling using the SmartPLS software was employed to test the relationship between perceived ease of use, perceived usefulness, attitude toward use, and reuse intention.

Findings/results: Perceived ease of use significantly influences both perceived usefulness and attitude toward using QRIS, while attitude toward using is the strongest predictor of reuse intention. Interestingly, perceived usefulness does not significantly affect attitude. Despite high user satisfaction, a gap remains between positive perception and actual reuse behavior, particularly among MSME merchants.

Conclusion: Enhancing user experience and simplifying payment process are essential for sustaining QRIS usage.

Originality/value (state of the art): This study provides novel insights into post-adoption behavior in digital payments, offering strategic implications for policymakers to improve financial inclusion through sustained QRIS usage in regional MSME ecosystems.

Keywords: digital payment, MSMEs, QRIS, reuse intention, technology acceptance

How to Cite:

Wibowo, S. C., Retnaningsih, & Watazawwadu'Ilmi, S. (2026). Determinants of QRIS reuse intention among buyers and MSME merchants in Banyumas Raya. *Jurnal Aplikasi Bisnis dan Manajemen (JABM)*, 12(2), 588. <https://doi.org/10.17358/jabm.12.2.588>

*Corresponding author:
Email: sendywataz@apps.ipb.ac.id

INTRODUCTION

Indonesia's digital-payment ecosystem has expanded rapidly as consumers and merchants increasingly use mobile banking, e-wallets, and other cashless payment instruments. Bank Indonesia payment statistics show continued growth in electronic-money transactions, while e-wallet penetration has been discussed as a pathway to financial inclusion because mobile-based payment services can broaden access for users who are not fully reached by conventional banking infrastructure (Bank Indonesia, 2025; Ciptariato, 2022). To reduce fragmentation across QR-code payment providers, Bank Indonesia introduced QRIS as a national standard that enables interoperable, simpler, faster, and safer QR-code transactions (Bank Indonesia, 2025; Natsir et al. 2023).

Banyumas Raya, consisting of Banyumas, Cilacap, Purbalingga, and Banjarnegara, provides a relevant regional context because the area exhibits uneven economic capacity and digital infrastructure; regional economic disparities are also visible in official regional gross domestic product statistics (Badan Pusat Statistik, 2025). The Banyumas region had 441,372 QRIS merchants, with Banyumas contributing 247,301 merchants or 56.03% of the regional total. QRIS transaction volume in August 2024 also remained concentrated in Banyumas, with 2,082,172 transactions compared with 182,765 transactions in Banjarnegara (Bank Indonesia, 2024). This spatial concentration implies that QRIS expansion is not only a matter of national adoption growth but also a regional inclusion and continuance challenge.

MSMEs are central to this issue because they represent most QRIS merchants in Banyumas Raya and are crucial actors in the digital-payment ecosystem. Yet MSME QRIS adoption can still be hindered by limited digital literacy, uneven internet infrastructure, concerns about transaction security, and operational frictions (Ekaputra et al. 2024). QRIS adoption therefore needs to be evaluated not only at the first-use stage but also at the reuse or continuance stage, where users and merchants decide whether QRIS remains valuable enough to be integrated into everyday transactions.

The Technology Acceptance Model (TAM) remains a widely used framework for explaining technology acceptance because it links perceived ease of use, perceived usefulness, attitude, and behavioral intention

(Davis, 1989; Davis et al. 1989). In QRIS research, Paramita and Cahyadi (2024) used an extended UTAUT model to explain behavioral intention and use behavior, while Rahimi et al. (2024) showed that perceived usefulness and perceived ease of use are relevant to behavioral intention and actual system use. Kusumayani et al. (2023) also found that QRIS acceptance among MSMEs is linked to TAM-related perceptions, including usefulness, ease of use, and attitude.

Recent literature increasingly emphasizes reuse intention rather than initial adoption. Ramayanti et al. (2025) applied a two-stage PLS-SEM and ANN approach to QRIS and found that QRIS intention is shaped by multiple behavioral and contextual drivers. Usman et al. (2024) showed that perceived benefits, knowledge, and safety affect trust among MSME customers, while Nurqamarani et al. (2024) highlighted the relevance of trust and technology-readiness elements in MSME QRIS adoption. These studies indicate that QRIS continuance is multidimensional, involving technological, psychological, and ecosystem factors.

The present study addresses a narrower regional gap. Previous studies often examine QRIS adoption in broader urban or national contexts, while Banyumas Raya has specific disparities in transaction concentration and merchant distribution. Moreover, the original thesis design separates buyer users and MSME merchants methodologically: buyer-user determinants are tested through SEM-PLS, while merchant acceptance is diagnosed descriptively. This combination enables the article to provide both statistical evidence on behavioral intention to reuse and practical insights for merchant-side interventions.

Addressing these gaps requires empirical investigation of the determinants of QRIS reuse intention among both users and MSMEs in a regional context. This study empirically investigates the determinants of QRIS Behavioral Intention to Reuse (BIR) by employing an extended TAM framework. The following research questions guide the investigation: (1) What are the characteristics of QRIS buyer users and MSME merchants in Banyumas Raya? What factors influence the Behavioral Intention to Reuse (BIR) QRIS among buyer users and MSME merchants in Banyumas Raya? What strategic recommendations can be formulated to strengthen QRIS reuse intention for buyer users and MSME merchants in Banyumas Raya?

By employing an extended TAM framework that integrates behavioral intention to reuse, this study explores the relationship between perceived ease of use, perceived usefulness, attitude toward use, and reuse intention. A quantitative approach with Structural Equation Modeling using Partial Least Squares (SEM-PLS) is applied for buyer users, while descriptive analysis is employed for MSME merchants, providing robust and complementary analysis of these interrelationships.

This study aims to identify the determinants of QRIS reuse intention among users and MSMEs in Banyumas Raya. The specific objectives are to: (1) examine the effect of perceived ease of use on perceived usefulness and attitude, (2) evaluate the influence of perceived usefulness on attitude, (3) assess the role of attitude in shaping behavioral intention to reuse, and (4) provide recommendations for policymakers, particularly Bank Indonesia, to strengthen digital payment sustainability and regional financial inclusion.

METHODS

This study employs primary data collected from two respondent groups: individual QRIS buyer users and MSME merchants located in Banyumas Raya, Central Java, Indonesia. The two groups were deliberately selected because they represent complementary perspectives within the QRIS ecosystem. Buyer users constitute the demand side, providing insight into consumer-level adoption behavior and Behavioral Intention to Reuse (BIR). MSME merchants constitute the supply side, revealing business-level adoption patterns and barriers to sustained use. Analyzing both groups simultaneously enables a comprehensive understanding of QRIS acceptance and addresses the research objectives from complementary angles.

Inclusion criteria were as follows. For buyer users: (1) domicile in one of the four districts of Banyumas Raya (Banyumas, Cilacap, Purbalingga, or Banjarnegara); and (2) have made at least one QRIS payment transaction. For MSME merchants: (1) own or manage a business in Banyumas Raya; and (2) have registered and actively used QRIS as a payment method in their business operations.

Buyer-user data were collected through an online questionnaire from October to November 2024. The

initial collection produced 120 responses and was screened to 115 valid buyer-user responses. MSME merchant data were collected in March 2025 through offline visits and WhatsApp distribution, yielding 40 valid merchant responses.

The questionnaire consisted of four sections: respondent profile, screening questions, QRIS usage behavior, and latent-construct measurement. The latent constructs were measured using a five-point Likert scale, from 1 = strongly disagree to 5 = strongly agree. A pilot test involving 30 respondents was conducted to evaluate item validity and reliability before full data collection. Validity was assessed using Pearson product-moment correlation, while reliability was assessed using Cronbach's Alpha.

The study employed non-probability sampling with an accidental sampling technique, in line with the complete thesis method and common non-probability sampling practice (Etikan et al. 2016). The minimum buyer-user sample was calculated using Cochran's formula with a 95% confidence level and a 10% margin of error, resulting in a minimum requirement of 96 respondents (Cochran, 1963). The final buyer-user sample of 115 valid responses exceeded this minimum requirement.

For the MSME merchant group, the study used a descriptive quantitative approach. The complete thesis argues that 40 merchant responses are acceptable for descriptive statistical analysis, particularly for identifying the direction and intensity of merchant perceptions. However, because the merchant sample is relatively small and was not analyzed with SEM-PLS, the merchant findings are interpreted as contextual diagnostics rather than causal evidence. Operational definitions and indicators for each construct are summarized in Table 1.

The analysis combines descriptive statistics and Partial Least Squares Structural Equation Modeling (PLS-SEM). Descriptive statistics summarize respondent profiles and merchant perceptions. Buyer-user hypotheses were tested with SmartPLS 4.0 because PLS-SEM is appropriate for predictive models, small-to-moderate samples, and exploratory theory development (Hair et al. 2014; Hair et al. 2019).

The analytical stages consisted of: Outer model evaluation to test convergent validity, discriminant validity, and reliability of measurement constructs.

Convergent validity was assessed using Average Variance Extracted ($AVE \geq 0.5$), and reliability was confirmed through Cronbach's Alpha and Composite Reliability (≥ 0.7). Inner model evaluation to assess structural relationships using coefficient of determination (R^2) and path coefficients. Hypothesis testing employed t-statistics (≥ 1.96) and p-values (≤ 0.05).

The study specifically focuses on the relationship between Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Attitude Toward Using (ATU), and Behavioral Intention to Reuse (BIR). The research model in Figure 1. Based on the TAM framework (Davis, 1989) and supported by prior empirical studies (Kusumayani et al. 2023; Paramita & Cahyadi, 2024; Rahimi et al. 2024), the following hypotheses were formulated:

H1: Perceived Ease of Use (PEOU) positively influences Perceived Usefulness (PU).

H2: Perceived Ease of Use (PEOU) positively influences Attitude Toward Using (ATU).

H3: Perceived Usefulness (PU) positively influences Attitude Toward Using (ATU).

H4: Attitude Toward Using (ATU) positively influences Behavioral Intention to Reuse (BIR).

This study is grounded in the Technology Acceptance Model (TAM) proposed by Davis (1989), which emphasizes the roles of perceived ease of use, perceived usefulness, and attitude in shaping behavioral intention. The research framework (as seen in Figure 2) addresses the gap in QRIS adoption between national and regional levels, highlighting continuity issues among MSMEs in Banyumas Raya.

Two key respondent groups are integrated in this study: buyers (individual users) and merchants (MSMEs). For buyers, the determinants of reuse intention are examined through the TAM constructs: perceived ease of use, perceived usefulness, attitude toward using, and behavioral intention to reuse. These interrelationships are empirically tested using Structural Equation Modeling with Partial Least Squares (SEM-PLS), which allows for robust analysis of causal linkages among the latent variables.

Tabel 1. Operational definition of variables and indicators of QRIS reuse intention

Latent Variable	Operational Definition	Indicators	Notation
Perceived Usefulness (PU)	Degree to which individuals believe using QRIS enhances transaction performance and efficiency (Davis, 1989).	Transaction ease	PU1
		Transaction speed	PU2
		Payment advantage	PU3
		Transaction efficiency	PU4
		Usefulness in transactions	PU5
Perceived Ease of Use (PEOU)	Degree to which individuals perceive QRIS as user-friendly, easy to operate and integrate into daily usage (Davis, 1989).	Ease of finding and understanding QRIS	PEOU1
		Simplicity of use	PEOU2
		Easy accessibility in payment apps	PEOU3
		Convenience of transactions	PEOU4
Attitude Toward Using (ATU)	Users' positive or negative evaluations towards using QRIS payment technology (Davis, 1989).	Trust in QRIS	ATU1
		Feeling safe using QRIS	ATU2
		Ease of transactions	ATU3
		Continued interest in QRIS use	ATU4
		Positive perception of QRIS	ATU5
Behavioral Intention to Reuse (BIR)	Likelihood of individuals repeatedly using QRIS payment systems in future transactions (Schiffman & Kanuk, 2004).	Continued use intention	BIR1
		Frequency compared to other payment methods	BIR2
		Likelihood to recommend QRIS	BIR3
		Preference for QRIS in transactions	BIR4

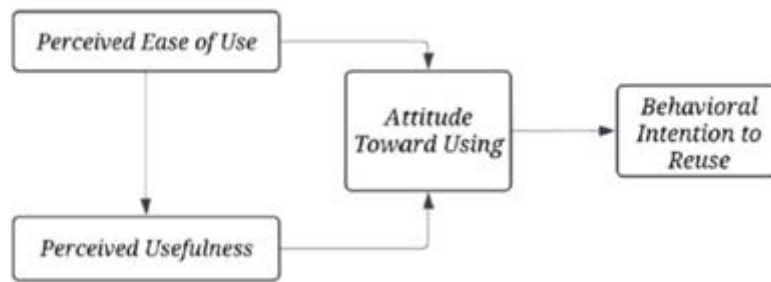


Figure 1. The research model of determinant QRIS reuse intention

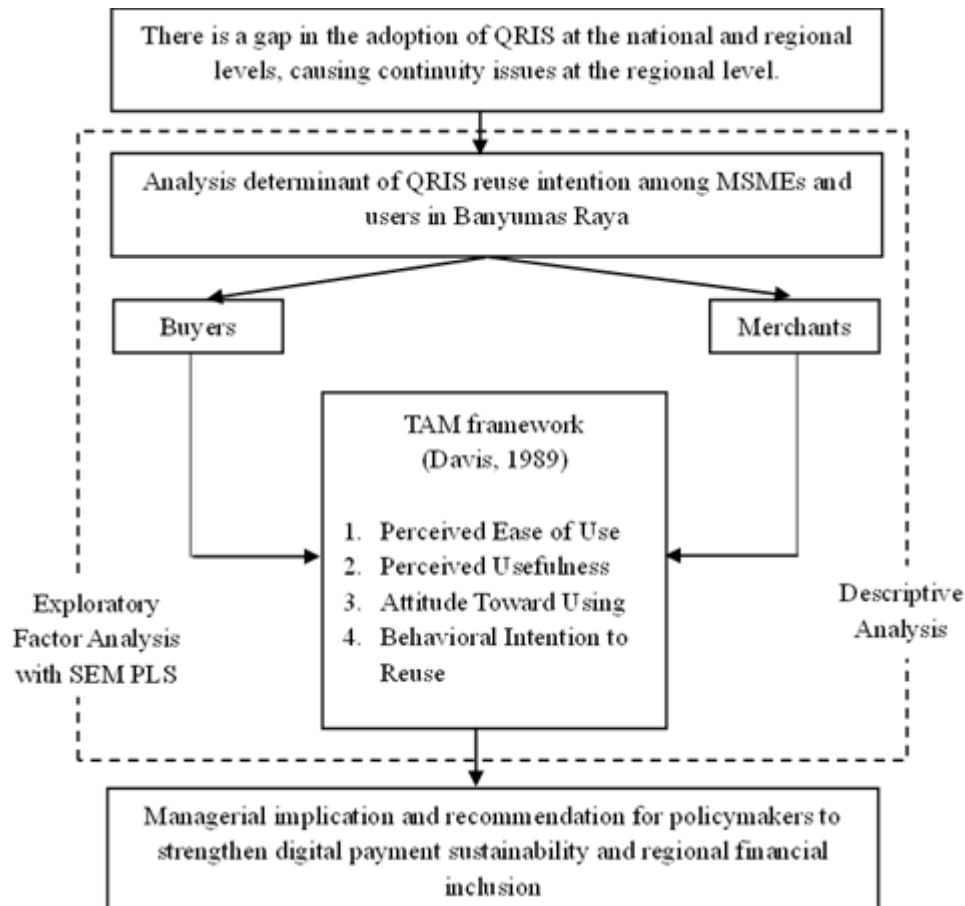


Figure 2. Research framework of determinant QRIS reuse intention

For merchants (MSMEs), a descriptive analysis is conducted to capture their perceptions and behavioral tendencies toward QRIS usage. This approach provides valuable contextual insights into how MSMEs perceive the usefulness, ease of use, and potential for continuous adoption of QRIS, complementing the SEM-PLS results from the buyer group.

The final stage of the framework emphasizes managerial implications and policy recommendations, which aim to strengthen sustainable QRIS adoption and support regional financial inclusion. In this way, the framework not only contributes theoretically to TAM extensions but also offers practical solutions for policymakers and stakeholders.

RESULTS

Outer Model Evaluation

Outer model evaluation assessed indicator validity and reliability. All indicators for the four latent constructs; Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Attitude Toward Using (ATU), and Behavioral Intention to Reuse (BIR) surpassed the acceptable loading factor threshold of 0.6, confirming convergent validity. The highest loading was recorded by indicator PU5 (0.911), PEOU2 (0.909), ATU5 (0.893), and BIR1 (0.936), respectively (Figure 3).

Table 2 summarizes Average Variance Extracted (AVE) results, demonstrating excellent convergent validity. All AVE values exceeded the standard benchmark of 0.50 (Hair et al. 2014), with BIR scoring highest (0.820), followed by PEOU (0.771), ATU (0.752), and PU (0.741). Reliability tests confirmed strong internal consistency; all Cronbach's Alpha and Composite Reliability values exceeded 0.70, indicating robust and stable measurement scales.

Reliability tests, employing Cronbach's Alpha and Composite Reliability, demonstrated strong internal consistency across constructs, each exceeding the recommended threshold of 0.70. This implies robustness and stability in measurement scales, providing confidence in the reliability of research findings.

Inner Model Evaluation and Hypotheses Testing

Inner model assessment utilized the coefficient of determination (R^2) to measure explanatory power. Constructs Perceived Usefulness (PU) and Behavioral Intention to Reuse (BIR) demonstrated high R^2 values of 0.732 and 0.686 respectively, indicating strong predictive accuracy. Attitude Toward Using (ATU) obtained a moderate R^2 of 0.591, indicating good explanatory power. Hypothesis testing (Table 3) presents the bootstrapping hypothesis test results.

The results are organized around the research objectives: testing the hypothesized TAM relationships for buyers and providing a descriptive profile of MSME merchants. Together, these findings position the study within the broader continuance-intention discourse.

H1: Perceived Ease of Use → Perceived Usefulness

The statistical analysis confirms that perceived ease of use (PEOU) significantly influences perceived usefulness (PU) ($\beta = 0.856$; $t = 23.809$; $p < 0.001$). Buyers who find QRIS simple to navigate, easy to understand, and accessible during daily transactions also perceive it as more beneficial and efficient. This outcome aligns with the original TAM proposition by Davis (1989) and with findings from Rahimi et al. (2024), which demonstrated that usability factors directly enhance the perception of usefulness in Indonesian digital payments.

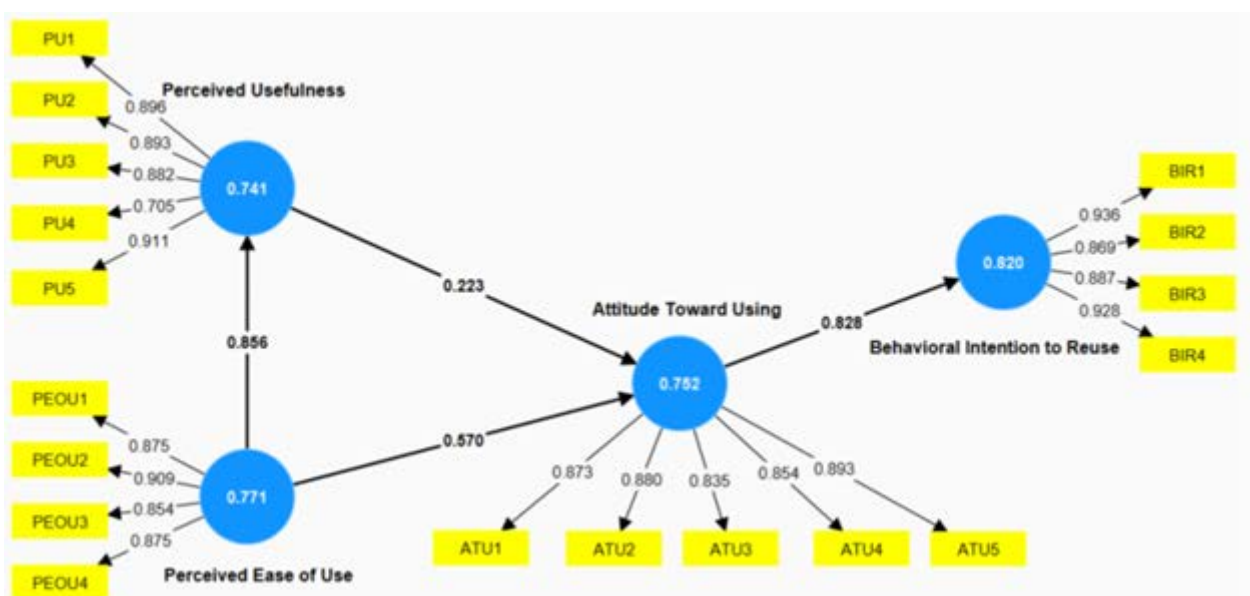


Figure 3. Loading factor values from path model

Table 3. Results of hypothesis testing (bootstrapping)

Hypothesis	Path	Original Sample	Sample mean	t-Statistics	p-value	Decision
H1: Perceived Ease of Use (PEOU) → Perceived Usefulness (PU)	Positive	0.856	0.854	23.809***	0.000	accepted
H2: Perceived Ease of Use (PEOU) → Attitude Toward Using (ATU)	Positive	0.570	0.566	4.215***	0.000	accepted
H3: Perceived Usefulness (PU) → Attitude Toward Using (ATU)	Positive	0.223	0.223	1.573***	0.116	rejected
H4: Attitude Toward Using (ATU) → Behavioral Intention to Reuse (BIR)	Positive	0.828	0.828	26.150***	0.000	accepted

Comparable international studies support this relationship. Yan et al. (2021), in their systematic review of continuance intention, highlighted technological ease as one of the most consistent predictors of ongoing usage across digital contexts. Similarly, Al-Okaily et al. (2023) reported that effort expectancy, a construct parallel to PEOU, strongly predicted performance expectancy in the acceptance of the JoMoPay system in Jordan. These parallels indicate that across diverse cultural and institutional environments, simplicity in use remains foundational for reinforcing perceptions of utility. The implication for QRIS is clear: sustained investment in intuitive design and streamlined transaction flows is essential to reinforce user-perceived value.

H2: Perceived Ease of Use → Attitude Toward Using

Results also show that PEOU significantly affects attitude toward using (ATU) ($\beta = 0.570$; $t = 4.215$; $p < 0.001$). Buyers who experience QRIS as effortless and efficient develop stronger positive evaluations toward its use. This finding resonates with Kusumayani et al. (2021), who showed that MSMEs in Bali associated ease of access and efficiency with positive attitudes toward QRIS. The evidence also echoes Rouibah et al. (2016), who emphasized that effort expectancy and perceived enjoyment significantly foster trust and positive affect in online payment adoption in Kuwait.

Together, these results reinforce the importance of usability not only for instrumental outcomes (i.e., usefulness) but also for attitudinal and emotional engagement. As argued by Yan et al. (2021), post-adoption continuance is sustained when systems reduce cognitive burden and promote positive experiences. In the QRIS context, this means usability enhancements, such as faster scanning recognition, seamless integration

with banking apps, and responsive troubleshooting, play a crucial role in cultivating enduring favorable attitudes.

H3: Perceived Usefulness → Attitude Toward Using

Interestingly, perceived usefulness does not significantly influence ATU ($\beta = 0.223$; $t = 1.573$; $p = 0.116$). This result diverges from the core TAM proposition, which posits usefulness as a direct determinant of attitude (Davis, 1989). Similar non-significant results were reported by Wijaya et al. (2021) in a study of e-wallet usage among university students in Indonesia, where high transaction frequency without new feature updates diminished the attitudinal impact of usefulness.

This finding confirms that although QRIS buyer users perceive certain benefits, these perceived benefits are not sufficient to shape a positive attitude toward QRIS usage. This result is also consistent with the findings of Wijaya et al. (2021), which showed that in the context of e-wallet usage among students at Ma Chung University, high usage intensity without feature updates may reduce the perceived value of usefulness. This condition is further reinforced by the continued habit of using cash and the fact that many merchants still do not support e-wallet payments.

In the context of QRIS, this indicates that although users acknowledge efficiency, speed, and convenience, these perceived benefits may be taken for granted. Without complementary improvements, such as loyalty features, merchant incentives, or advanced interoperability, utility alone does not translate into stronger attitudes. This reflects the “intention–behavior gap” emphasized by Yan et al. (2021), whereby favorable cognitive evaluations do not always convert into affective commitment or sustained behavior.

H4: Attitude Toward Using → Behavioral Intention to Reuse

Attitude toward using exerts the strongest influence on behavioral intention to reuse ($\beta = 0.828$; $t = 26.150$; $p < 0.001$). Buyers with favorable attitudes rooted in trust, perceived safety, and satisfaction exhibit higher intentions to continue using QRIS. This finding confirms that positive attitudes toward the payment system, reflected in trust, perceived security, perceived helpfulness, interest in reuse, and the perceived importance of QRIS in transaction activities, directly contribute to an increase in reuse intention. In the context of the QRIS payment system, buyer users who hold a positive attitude toward using this payment system tend to demonstrate a stronger intention to reuse QRIS.

Therefore, the development of QRIS should focus on improving features that ensure the security and smoothness of each transaction, supported by educational campaigns from Bank Indonesia to build buyer users' trust. Payment service providers also need to enhance the user experience, including by providing an intuitive interface and real-time assistance services, particularly to address security-related issues experienced by buyer users.

This result is also consistent with the findings of Nelwan et al. (2021), which showed that attitude toward using has a positive and significant effect on intention to reuse in the Shopee PayLater application service. This occurs because a positive attitude reflects users' evaluation and belief that the service is worth adopting again, thereby strengthening behavioral intention for repeated use.

Descriptive Analysis of MSME Merchants

Descriptive statistical analysis for MSME merchants indicated consistently positive perceptions toward QRIS (Table 4). High mean scores were reported across all variables: Perceived Usefulness (PU, mean = 4.33), Perceived Ease of Use (PEOU, 4.31), Attitude Toward Using (ATU, 4.40), and Behavioral Intention to Reuse (BIR, 4.25). Further, Table 5 provides percentage interpretations indicating MSMEs perceive QRIS. Percentage interpretations confirmed that MSMEs perceive QRIS as highly beneficial (86.6%), easy to use (86.2%), positively perceived (88.0%), and demonstrate strong reuse intention (81.5%).

These findings must be interpreted within the specific local context of Banyumas Raya. The dominance of Generation Z MSME owners (75% of respondents) is particularly salient, as this cohort is more digitally adaptive and comfortable with technology-based payment systems (Manurung et al. 2025). Furthermore, 62.5% of surveyed MSMEs operate in the food and beverage sector, which has historically been among the earliest adopters of digital payment due to high transaction volumes and customer demand for speed. The geographic concentration of QRIS adoption in Banyumas District, which hosts the regional office of Bank Indonesia, and 56% of all regional merchants also explains the relatively higher adoption rates compared to Banjarnegara and Purbalingga, where weaker digital infrastructure and lower GRDP (IDR 27.64 million per capita) create structural barriers to sustained adoption.

Table 4. Descriptive Statistics of MSME Merchants

Variable	Min	Max	Mean	Std. Dev.	Category Interpretation
Perceived Usefulness (PU)	2	5	4.33	0.737	Highly beneficial
Perceived Ease of Use (PEOU)	2	5	4.31	0.728	Easy to use
Attitude Toward Using (ATU)	2	5	4.40	0.928	Highly positive attitude
Behavioral Intention to Reuse (BIR)	1	5	4.25	0.672	Strong intention to reuse

Table 5. MSME Merchant Response Categories

Variable	ΣSK	ΣSH	Percentage (%)	Category Interpretation
Perceived Usefulness (PU)	1,000	866	86.6	Highly beneficial
Perceived Ease of Use (PEOU)	800	690	86.2	Easy to use
Attitude Toward Using (ATU)	1,000	880	88.0	Highly positive attitude
Behavioral Intention to Reuse (BIR)	800	652	81.5	Strong intention to reuse

The relatively lower Behavioral Intention to Reuse score (81.5%) compared to Attitude Toward Using (88%) signals a gap between positive evaluation and behavioral continuity. This intention-behavior discrepancy mirrors findings by Yan et al. (2021) and Reza et al. (2024), who showed that external barriers including settlement delays, merchant discount rates, and limited customer demand moderate actual reuse behavior, even when merchants hold favorable perception.

Moreover, the high attitudinal score (88%) suggests that merchants do not only recognize functional benefits but also derive psychological confidence from using QRIS. This echoes findings by Rouibah et al. (2016), who stressed that trust and perceived safety are essential in payment adoption. Nevertheless, the relatively lower reuse score (81.5%) underscores the need for supportive ecosystem measures to convert positive perceptions into consistent behavioral intention.

Integration of Buyer and MSME Findings

The complementary findings from buyer users (SEM-PLS) and MSME merchants (descriptive analysis) together provide a comprehensive picture of QRIS adoption in Banyumas Raya. For buyer users, ease of use is the foundational driver: it directly strengthens both perceived usefulness (H1) and attitude (H2), with attitude in turn being the decisive predictor of Behavioral Intention to Reuse (H4). This confirms that the experiential quality of QRIS, how intuitive, accessible, and comfortable it feels, determines whether users will continue engaging with the system.

For MSME merchants, the descriptive results corroborate this pattern at the business level. High positive scores for ease of use (86.2%) and attitude (88%) align with the SEM findings that these constructs are central to reuse intention. However, the lower BIR score (81.5%) among merchants reveals a dimension absent from the buyer analysis: structural and contextual barriers, transaction costs, settlement delays, and uneven digital infrastructure across districts create friction that impedes behavioral follow-through despite positive attitudes. This highlights that sustaining QRIS adoption requires not only usability improvements (relevant to buyers) but also ecosystem-level interventions (critical for MSMEs). Together, the two analyses reinforce the

study's core recommendation: that ease of use and positive attitudes are the indispensable foundations for QRIS sustainability, but structural support is equally essential for the MSME segment.

Managerial Implications

The findings highlight that ease of use and positive attitudes are the most decisive factors sustaining QRIS adoption. For policymakers, particularly Bank Indonesia, interventions should prioritize improving user experience through simplified features, faster settlement processes, and robust security mechanisms. By focusing on usability and trust, payment service providers can strengthen users' positive attitudes, which in turn foster stronger reuse intentions. From the merchant perspective, while MSMEs hold favorable perceptions, continuance intention remains more fragile due to external barriers such as transaction costs and settlement delays. Targeted support is needed, including digital literacy training, onboarding incentives, and tailored merchant services.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study identifies the determinants of QRIS Behavioral Intention to Reuse (BIR) among buyers and explores MSME merchant perceptions in Banyumas Raya. Grounded in the Technology Acceptance Model (TAM), the research demonstrates that ease of use plays a pivotal role in shaping both perceived usefulness and attitudes toward QRIS. Positive attitudes emerge as the strongest driver of Behavioral Intention to Reuse (BIR), while perceived usefulness alone does not significantly shape attitudes. From the merchant perspective, descriptive analysis reveals consistently positive perceptions across usefulness, ease of use, and attitudes. However, the gap between positive evaluations and actual reuse intention reflects an intention-behavior discrepancy tied to structural and contextual barriers specific to Banyumas Raya. These conclusions reaffirm ease of use and favorable attitudes as the foundation for long-term QRIS sustainability, while highlighting the need to address systemic frictions hindering MSME continuance.

Recommendations

First, Bank Indonesia and payment service providers should prioritize usability enhancements, including simplified transaction flows, faster QR code recognition, and seamless integration across digital platforms to reinforce both perceived usefulness and positive attitudes, accompanied by visible transaction security assurances. Second, targeted interventions are needed to bridge the intention-behavior gap among MSMEs: adjusting merchant discount rates, accelerating settlement processes, and providing localized digital literacy training that addresses both technical and financial aspects of QRIS usage. Third, sustaining long-term QRIS adoption requires continuous innovation, such as loyalty integrations, NFC-based QRIS Tap, and cross-wallet interoperability, to prevent user stagnation and enhance perceived value.

FUNDING STATEMENT: This research did not receive specific grants from any public, commercial, or not-for-profit funding agencies.

CONFLICT OF INTEREST: The author declares no conflict of interest associated with this study.

DECLARATION OF GENERATIVE AI STATEMENT: During the preparation of this work, the authors used ChatGPT and Grammarly for language refinement, grammar checking, and academic editing of the manuscript. After using this tool, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

REFERENCES

- Al-Okaily, M., Alsyouf, A., Alqudah, A., Ghanem, Q., & Alshurideh, A. (2020). Acceptance of mobile payment systems in Jordan: Extending UTAUT2 with trust. *Technology in Society*, 63, 101415. <https://doi.org/10.1016/j.techsoc.2020.101415>
- Ekaputra PS, Ciptosari F, Halim T. (2024). Adopsi Teknologi Pembayaran Digital QRIS di Kalangan UMKM Labuan Bajo: Tantangan dan Peluang. *Jurnal Akademisi Vokasi*. 3(2):1–13. <https://doi.org/10.63604/javok.v3i2.138>
- Bank Indonesia (BI). (2024). *Statistik Sistem Pembayaran Indonesia*. Retrieved from <https://www.bi.go.id/id/statistik/sistem-pembayaran>
- Bank Indonesia (BI). (2025). *Laporan Tahunan Sistem Pembayaran Indonesia*. Retrieved from <https://www.bi.go.id/id/publikasi/laporan>
- Ciptariant, A. (2022). E-wallet application penetration for financial inclusion in Indonesia. *International Journal of Current Science Research and Review*. 05(02). doi:10.47191/ijcsrr/V5-i2-03.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Diah, L., & Anas, T. (2023). The effect of perceived ease of use and perceived usefulness on the intention to use mobile banking. *Journal of Islamic Economics and Banking*, 11(1), 23–32. <https://doi.org/10.22219/jieb.v11i1.13764>
- Ekaputra, I. A. G., Suryani, E., & Nugroho, A. (2014). Digital literacy challenges for Indonesian SMEs. *Asian Journal of Business and Technology*, 8(2), 71–82. <https://doi.org/10.20885/ajbt.vol8.iss2.art3>
- Ministry of Cooperatives and SMEs (Kemenkop UKM). (2021). *UMKM dan Ekonomi Nasional*. Retrieved from <https://kemenkopukm.go.id>
- Natsir, K., Bangun, N., Attan, M. B., & Landias, J. S. (2023). Penggunaan QRIS sebagai alat pembayaran digital untuk meningkatkan produktivitas UMKM. *Jurnal Serina Abdimas*, 1(3), 1154–1163. <https://doi.org/10.24912/jsa.v1i3.26208>
- Nelwan, J. M., Oktavia, F., & Sumarto, S. (2021). Pengaruh attitude terhadap niat menggunakan kembali layanan Shopee PayLater. *Jurnal Riset Ekonomi dan Bisnis*, 14(2), 140–150. <https://doi.org/10.31258/jreb.14.2.140-150>
- Ramayanti, R., Azhar, Z., & Nik Azman, N. H. (2025). Factors influencing intentions to use QRIS: A two-staged PLS-SEM and ANN approach. *Telematics and Informatics Reports*, 17, 100185. <https://doi.org/10.1016/j.teler.2024.100185>
- Rouibah, K., Lowry, P. B., & Hwang, Y. (2016). The effects of perceived enjoyment and perceived risks on trust formation and intentions to use online payment systems: New perspectives from an Arab country. *Electronic Commerce Research and Applications*, 19, 33–43. <https://doi.org/10.1016/j.elerap.2016.07.001>
- Schiffman, L. G., & Kanuk, L. L. (2004). *Consumer behavior* (8th ed.). Pearson Education.

- Wijaya RA, Agustin DA, Nugrahani JA. (2021). Pengaruh perceived usefulness dan perceived ease of use terhadap attitude toward using e-wallet pada mahasiswa selama pandemi COVID-19. *Prosiding Seminar Nasional Ekonomi & Bisnis*, 1:91–103. <https://doi.org/10.33479/sneb.v1i186>
- Yan, M., Filieri, R., & Gorton, M. (2021). Continuance intention of online technologies: A systematic literature review. *International Journal of Information Management*, 58, Article 102315. <https://doi.org/10.1016/j.ijinfomgt.2021.102315>.