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Determinants of Qris Continuance Among Msmes: The Role of Bank Indonesia Support in The Expectation Confirmation Model Framework

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Abstract

Payment digitalization has encouraged MSMEs to adopt QRIS; however, the success of innovation is not determined solely by initial adoption but also by continuance in daily transactions. This study examines the effects of confirmation, perceived usefulness, satisfaction, and Bank Indonesia support on QRIS continuance among MSMEs affiliated with Bank Indonesia in West Sumatra, while also testing the moderating role of Bank Indonesia support. An explanatory quantitative survey was conducted involving 140 MSME QRIS users. Data were analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) with SmartPLS 4. The findings indicate that confirmation positively affects perceived usefulness and satisfaction. Furthermore, perceived usefulness, satisfaction, and Bank Indonesia support positively influence QRIS continuance. Nevertheless, Bank Indonesia support does not significantly moderate the relationships between satisfaction and continuance or between perceived usefulness and continuance. These results imply that institutional support works more effectively as a direct driver of continuance than merely as a factor that strengthens users' psychological evaluations. The originality of this study lies in integrating ECM with Bank Indonesia support in the context of regulator-assisted MSMEs in a regional digital payment ecosystem.

INTRODUCTION

The digitalization of payment systems has changed the way people and business actors conduct transactions. In recent years, digital payments have no longer functioned only as an alternative payment method; they have become part of the economic infrastructure that connects consumers, business actors, payment service providers, and regulators. The World Bank, through the Global Findex Database, emphasizes that digital payments are one of the main gateways for expanding financial inclusion, especially as people become increasingly accustomed to using mobile- and digital-network-based financial instruments (Demirguc-Kunt et al., 2022). In line with this, the GSMA (2025) report shows that money is moving within digital ecosystems on an increasingly large scale, making digital payments a global economic phenomenon.

In Indonesia, this transformation is reinforced through the Indonesia Payment System Blueprint 2025, which places retail payment systems, standardization, data, digitalization, and regulatory reform as part of Bank Indonesia's policy direction (Bank Indonesia, 2020). One tangible form of this policy is the Quick Response Code Indonesian Standard (QRIS). Bank Indonesia explains that QRIS was developed together with the payment system industry so that QR-code transactions become fast, easy, affordable, secure, and reliable, and can be used across payment service providers (Bank Indonesia, 2024). Thus, QRIS is not only a payment instrument but also a policy instrument for expanding financial inclusion and MSME digitalization.

The high adoption of QRIS has not automatically resolved the issue of usage continuance. As of the first semester of 2025, QRIS had reached 57 million users and 39.3 million merchants, 93.16 percent of whom were MSMEs, with 6.05 billion transactions worth Rp579 trillion (Bank Indonesia, 2025). These figures indicate strong acceleration, yet from a technology management perspective, success does not stop at the number of users. The challenge is how QRIS can continue to be used consistently when MSME actors face transaction fees, delayed notifications, cash habits, varying levels of digital literacy, and the reluctance of some customers to use cashless payments.

Therefore, QRIS usage continuance needs to be examined. In this study, usage continuance is understood as the intention and commitment of MSME actors to keep using QRIS in the future, maintain it as the main payment method, increase its utilization, and recommend it to other business actors. This concept is in line with continuance intention in information systems studies, namely post-adoption behavior that emerges after users evaluate their actual experience. Loh et al. (2022) emphasize that the initial use of mobile technology does not always reflect long-term success; therefore, studies on continuance intention are important to ensure that technology continues to provide value.

A similar phenomenon is also observed among MSMEs that are partners and assisted businesses of Bank Indonesia West Sumatra. The research data show that respondents were already in the usage-experience phase, not merely the initial adoption phase. A total of 62.14 percent of respondents had used QRIS for more than two years, while 80.71 percent were MSMEs assisted by Bank Indonesia. On the other hand, open feedback from the instrument trial indicated that some business actors still expected faster settlement of funds into their accounts, more transparent transaction fees, and QRIS socialization that reaches small businesses such as food stalls. Thus, the field problem is no longer only related to QRIS availability, but also to experience quality, perceived usefulness, satisfaction, and institutional support as perceived by MSME actors.

To explain this issue, this study uses the Expectation Confirmation Model (ECM) as the grand theory. ECM explains that continuance intention is formed through a post-adoption evaluation process, namely when users compare their initial expectations with actual experience and then form perceived usefulness and satisfaction (Bhattacherjee, 2001). In digital payments, this flow is relevant because MSME actors will continue to use QRIS if they feel that the transaction experience meets their expectations, QRIS is useful for business operations, and QRIS use generates satisfaction.

Although ECM has been widely used in technology studies, several studies show the need to include external factors. Nguyen and Dao (2024) show that the ECM model can be extended with trust and user adaptation factors in the context of mobile banking. Meanwhile, Al Amin et al. (2024) show that information quality, service quality, system quality, perceived usefulness, and confirmation influence satisfaction and payment application continuance intention. In line with this, Puspitasari and Salehudin (2022) emphasize that government support plays a role in the long-term adoption of QRIS. However, studies that specifically position Bank Indonesia support in a QRIS continuance model for MSMEs assisted by regional regulators remain limited.

In the current digital era, QRIS is part of the broader flow of digital payment transformation. Globally, digital payments are viewed as an important instrument for expanding financial inclusion because they can open access to transactions that are faster, recorded, and connected to formal financial services (Demirguc-Kunt et al., 2022). In line with this, the mobile money ecosystem continues to develop and shows that the main challenge of digital financial services no longer stops at the availability of payment channels, but has shifted to the ability to maintain repeated use in daily economic activities (GSMA, 2025). Therefore, the study of QRIS should be positioned not only as a study of technology adoption, but also as a study of the sustainability of usage behavior after business actors have truly gained transaction experience.

Based on the Bank Indonesia (2025) report, QRIS has reached 57 million users and 39.3 million merchants, 93.16 percent of whom are MSMEs. This achievement shows that QRIS penetration is already very broad, but high adoption figures do not always reflect consistent use. The same condition is seen in Bank Indonesia West Sumatra data used in this study, where QRIS transaction volume increased from 692,354 transactions in Q1-2023 to 4,911,408 transactions in Q2-2025. This increase in volume demonstrates the great potential of payment digitalization in the region, while at the same time emphasizing the need for a sharper understanding of the factors that make MSMEs continue to use QRIS in the long term. Therefore, this study can answer the issue of QRIS usage continuance because the research object consists of MSMEs that have experienced a real post-adoption process.

Based on this gap, this study offers novelty in three aspects. First, the research focus shifts from QRIS adoption to QRIS usage continuance. Second, the study examines Bank Indonesia support as an institutional factor in the ECM model. Third, the research object is limited to MSMEs that are partners and assisted businesses of Bank Indonesia West Sumatra, which have stronger exposure to policy, training, and mentoring than general MSMEs.

Accordingly, this study aims to analyze the effects of confirmation, perceived usefulness, satisfaction, and Bank Indonesia support on QRIS usage continuance, and to assess whether Bank Indonesia support strengthens the relationships of perceived usefulness and satisfaction with continuance.

LITERATURE REVIEW

This study is based on the Expectation Confirmation Model (ECM). This model was developed from expectation confirmation theory in consumer behavior and was later adapted by Bhattacherjee (2001) to explain information system continuance. Unlike initial adoption theories that emphasize first-time acceptance, ECM focuses on the phase after users have actual experience. Thus, ECM is suitable for examining MSMEs that have already used QRIS and must decide whether the technology will continue to be maintained in business transactions.

In ECM, confirmation is the initial cognitive process that determines whether actual experience is consistent with user expectations. If QRIS use is proven to accelerate transactions, facilitate payment acceptance across applications, and support business recording, MSME actors will assess QRIS as more useful. This perceived usefulness then strengthens satisfaction and encourages usage continuance. The findings of Loh et al. (2022) strengthen this argument because the expectation-confirmation model in mobile payments can explain user continuance intention through post-adoption constructs.

Furthermore, this study extends ECM by positioning Bank Indonesia support as an institutional factor. This extension is based on the logic that MSME behavior is influenced not only by individual evaluations, but also by a sense of security, legitimacy, education, standardization, and mentoring provided by the regulator. In the context of QRIS, Bank Indonesia not only sets standards but also builds the usage ecosystem through socialization, literacy, and development programs. Therefore, Bank Indonesia support is positioned as a variable that can directly influence continuance and is also tested as a moderator in the relationships of perceived usefulness and satisfaction with continuance.

QRIS usage continuance is the dependent variable that describes MSMEs' willingness to continue using QRIS in the long term. In mobile payment studies, continuance is often associated with continuance intention, loyalty, and behavioral commitment after users evaluate the real benefits of technology. Sleiman et al. (2022) found that satisfaction is the most important factor in mobile payment continuance intention, while Franque et al. (2023) show that trust, task-technology fit, and satisfaction play roles in the continuance use of mobile payments. Therefore, QRIS continuance cannot be explained solely by the number of merchants; it must be viewed from the experience, usefulness, satisfaction, and support perceived by MSMEs.

Confirmation is the fit between initial expectations and the actual experience of using QRIS. When MSME actors feel that QRIS works as expected, for example by making payments faster and making customer transactions easier, positive confirmation is formed. In ECM, confirmation does not stop as an assessment of experience; it becomes the basis for forming perceived usefulness and satisfaction. Therefore, confirmation indicators include performance fit, fit between features and business needs, experience that is better than expected, and overall fulfillment of expectations.

Perceived usefulness is MSME actors' perception that QRIS provides benefits for business operations. In the MSME context, these benefits are seen in faster payment processes, service efficiency, the ability to accept payments from various applications, support for daily operations, and the improvement of a professional business image. Al Amin et al. (2024) show that perceived usefulness and confirmation have positive effects on satisfaction and payment application continuance intention, making perceived usefulness an important bridge between usage experience and behavioral continuance.

Satisfaction is the level of satisfaction felt by MSME actors after using QRIS. Satisfaction emerges when the usage experience produces comfort, accuracy, and suitability to needs. In the context of digital payments, satisfaction is not only about whether the system can be used, but also concerns notification reliability, the comfort of receiving payments, and the belief that the decision to use QRIS is the right one. Therefore, satisfaction is predicted to play a direct role in QRIS usage continuance.

Bank Indonesia support is MSME actors' perception of regulator support in the form of socialization, education, information, standardization, strengthening confidence, and literacy programs. Puspitasari and Salehudin (2022) show that government support is related to the long-term adoption of QRIS. However, the results of this study are important for determining whether this support works as a direct effect or as a factor that strengthens the relationship among usefulness, satisfaction, and continuance. Thus, this variable has a contextual position that distinguishes this study from general ECM studies.

The study is built by positioning confirmation as an antecedent of perceived usefulness and satisfaction. Furthermore, perceived usefulness, satisfaction, and Bank Indonesia support are directed toward QRIS usage continuance. In addition, Bank Indonesia support is tested as a moderating variable in the relationships of perceived usefulness and satisfaction with continuance. This framework shows that MSMEs' decision to continue using QRIS is the result of an interaction between post-adoption experience evaluation and the institutional support received.

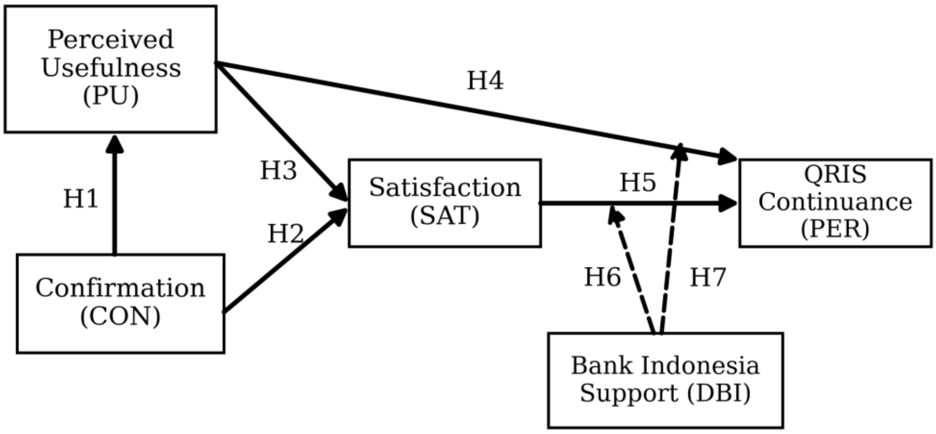

Figure 1. Research Conceptual Framework

Hypothesis Development

First, confirmation has a positive effect on perceived usefulness. In ECM, actual experience that is consistent with expectations will make users assess technology as more useful. Among MSMEs, if QRIS is proven to simplify payments, accelerate services, and fit business needs, perceived usefulness will increase. The studies of Nguyen and Dao (2024), Loh et al. (2022), and Al Amin et al. (2024) support the relationship between confirmation and perceived usefulness. Thus, H1: Confirmation has a positive effect on perceived usefulness.

Second, confirmation has a positive effect on satisfaction. MSME actors will feel satisfied when the experience of using QRIS is consistent with their initial expectations. If payments run smoothly, notifications are easy to understand, and customers can use various applications, satisfaction will be formed. Empirical evidence in mobile payment studies shows that confirmation is one of the important antecedents of satisfaction (Loh et al., 2022; Al Amin et al., 2024). Thus, H2: Confirmation has a positive effect on satisfaction.

Third, perceived usefulness has a positive effect on satisfaction. Perceived benefits make users evaluate the decision to use technology as the right decision. For MSMEs, QRIS that accelerates transactions and expands payment options will increase satisfaction. The studies of Al Amin et al. (2024) and Nguyen and Dao (2024) show that perceived usefulness is related to satisfaction and continuance intention. Thus, H3: Perceived usefulness has a positive effect on satisfaction.

Fourth, perceived usefulness has a positive effect on QRIS usage continuance. MSMEs tend to maintain technology that is perceived as useful for business operations. If QRIS helps payments, recordkeeping, and business image, MSME actors have a rational reason to continue using it. Thus, H4: Perceived usefulness has a positive effect on QRIS usage continuance.

Fifth, satisfaction has a positive effect on QRIS usage continuance. Satisfaction indicates that the technology has met user needs. In mobile payments, Sleiman et al. (2022) found that satisfaction is the strongest factor in continuance intention. Therefore, H5: Satisfaction has a positive effect on QRIS usage continuance.

Sixth and seventh, Bank Indonesia support is tested as a moderating variable. Theoretically, institutional support can strengthen the relationships among satisfaction, perceived usefulness, and continuance because such support provides a sense of security and policy clarity. However, the strength of this moderation needs to be proven empirically, especially among MSMEs that are already in an assisted ecosystem. Thus, H7: Bank Indonesia support moderates the effect of satisfaction on QRIS usage continuance; and H8: Bank Indonesia support moderates the effect of perceived usefulness on QRIS usage continuance.

METHODS

This study uses a quantitative approach with an explanatory design and survey method. The quantitative approach is used because this study aims to test the relationships among variables formulated in the research model, namely confirmation, perceived usefulness, satisfaction, Bank Indonesia support, and QRIS usage continuance. The explanatory design is chosen because the study not only describes the condition of QRIS use among MSMEs, but also explains the direction, strength, and significance of the relationships among variables. Data were collected cross-sectionally, namely during one observation period, so the research results describe respondents' perceptions based on their actual experience using QRIS at the time the study was conducted.

The sampling technique used was purposive sampling. This technique was selected because not all MSME actors have experience relevant to the research objectives. Respondents were determined based on several criteria: being an MSME partner, assisted business, or participant in Bank Indonesia West Sumatra training/curation; having used QRIS in business activities; still actively running the business; and being willing to provide answers through the research questionnaire. With these criteria, the selected respondents were expected to have real post-adoption experience, enabling them to assess usefulness, satisfaction, institutional support, and QRIS usage continuance more accurately. The sample size was determined from a population of 213 MSMEs that were partners and assisted businesses of Bank Indonesia West Sumatra. The minimum sample size was determined using Slovin's formula at a 5 percent error level, namely n = N/(1 + Ne^2). Based on this calculation, a sample requirement of around 139 respondents was obtained and then rounded to 140 respondents. This number was used in the main data processing because it met the minimum sample requirement and was consistent with the characteristics of the SEM-PLS analysis used in this study.

The research variables consist of QRIS usage continuance as the dependent variable, confirmation and perceived usefulness as exogenous variables within the Expectation Confirmation Model framework, satisfaction as a variable that explains post-use evaluation, and Bank Indonesia support as an institutional variable tested as both a direct effect and a moderating variable. QRIS usage continuance is defined as the intention and commitment of MSMEs to continue using QRIS in business transactions, measured through the intention to continue using it, the position of QRIS as the main payment method, the desire to maintain use in the long term, increased utilization, and willingness to recommend QRIS to other MSMEs. Confirmation is defined as the fit between initial expectations and the actual experience of using QRIS, measured through performance fit, feature and benefit fit, experience that is better than expected, and overall fulfillment of expectations.

Furthermore, perceived usefulness is defined as MSMEs' perception of the extent to which QRIS provides benefits for business activities. This variable is measured through QRIS's ability to accelerate payments, improve service efficiency, facilitate the acceptance of cashless payments across applications, support business operations, and improve the professional image of the business. Satisfaction is defined as the level of MSME satisfaction after using QRIS, measured through satisfaction, comfort in receiving payments, the appropriateness of the decision to use QRIS, and satisfaction with overall QRIS performance. Bank Indonesia support is defined as

MSMEs' perception of Bank Indonesia's role in the form of socialization, education, information, standardization, confidence building, and literacy programs that support MSME readiness to use QRIS. All variables were measured using a 1 to 5 Likert scale, ranging from strongly disagree to strongly agree.

The research instrument was a closed-ended questionnaire developed based on the indicators of each variable. Before being used in the main study, the instrument was piloted with 20 MSME respondents to ensure that each statement item could be understood and could measure the research constructs consistently. Validity testing was conducted using corrected item-total correlation with an r-table value of 0.444, while reliability testing was conducted using Cronbach's alpha with a minimum threshold of 0.70. The pilot test results showed that all statement items were valid and reliable, so the instrument was appropriate for use in the main data collection.

Data were collected by distributing questionnaires to MSMEs that met the research criteria. Primary data were obtained from respondents' answers to the questionnaire items, while secondary data were used to strengthen the research context, especially regarding QRIS development, payment system digitalization, and MSME characteristics. Secondary data were obtained from relevant reports, publications, and official documents, including sources from Bank Indonesia and scientific literature related to the continuance use of digital payment technology.

Data analysis techniques were carried out in stages. The first stage was descriptive analysis to describe respondent characteristics and response tendencies for each research variable. The second stage was measurement model testing through outer loading, Cronbach's alpha, composite reliability, Average Variance Extracted, Heterotrait-Monotrait Ratio, and Fornell-Larcker Criterion. The third stage was structural model testing through R-square values, path coefficients, t-statistics, and p-values. Hypothesis testing used the criteria of t-statistics greater than 1.96 and p-values less than 0.05. The data analysis tool used was SmartPLS 4 with a Structural Equation Modeling-Partial Least Squares approach, while the initial data recapitulation process was carried out using Microsoft Excel before the data were further analyzed in SmartPLS.

RESULTS AND DISCUSSION

Table 1. Respondent Characteristics

Characteristic	Category	Frequency	Percentage
Gender	Male	22	15.71
	Female	118	84.29
Age	<25 years	4	2.86
	25-35 years	27	19.29
	36-45 years	58	41.43
	>45 years	51	36.43
Education	Junior High School	2	1.43
	Senior High School	38	27.14
	Diploma (D-3)	7	5.00
	Undergraduate student (S1)	2	1.43
	Bachelor's degree (S-1)	84	60.00

Characteristic	Category	Frequency	Percentage
	Master's degree (S-2)	7	5.00
Marital status	Married	122	87.14
	Unmarried	18	12.86
Business sector	Culinary	67	47.86
	Fashion/Wastra	42	30.00
	Handicraft/Craft	24	17.14
	Agriculture, livestock, plantation	7	5.00
Business scale	Micro	44	31.43
	Small	76	54.29
	Medium	20	14.29
Length of business	2-3 years	7	5.00
	4-5 years	18	12.86
	>5 years	115	82.14
Status in the BI West Sumatra program	Partner	2	1.43
	Assisted MSME	113	80.71
	Has attended BI training/curation	25	17.86
Length of QRIS use	<6 months	11	7.86
	6-12 months	7	5.00
	1-2 years	35	25.00
	>2 years	87	62.14

Source: processed by the authors (2026)

Table 1 presents all respondent characteristics in the study. Based on gender, respondents were dominated by women, with 118 people or 84.29 percent, while men numbered 22 people or 15.71 percent. In terms of age, the largest group was 36-45 years old, with 58 people or 41.43 percent, followed by respondents older than 45 years, with 51 people or 36.43 percent, those aged 25-35 years, with 27 people or 19.29 percent, and those under 25 years, with 4 people or 2.86 percent. Based on education, most respondents were bachelor's degree graduates, with 84 people or 60.00 percent, while the rest came from senior high school, diploma, master's degree, undergraduate students, and junior high school backgrounds. Respondents were also dominated by married business actors, with 122 people or 87.14 percent. Based on business sector, most respondents operated in the culinary sector, with 67 people or 47.86 percent, followed by fashion/wastra with 42 people or 30.00 percent, handicrafts/crafts with 24 people or 17.14 percent, and agriculture, livestock, and plantation businesses with 7 people or 5.00 percent. In terms of business scale, most respondents were small enterprises, with 76 people or 54.29 percent, followed by micro enterprises with 44 people or 31.43 percent and medium enterprises with 20 people or 14.29 percent. Most respondents had operated their businesses for more than five years, with 115 people or 82.14 percent. Regarding the Bank Indonesia West Sumatra program, most respondents were assisted MSMEs, with 113 people or 80.71 percent, while 25 people or 17.86

percent had attended Bank Indonesia training or curation and 2 people or 1.43 percent were partners. In terms of QRIS usage experience, 87 respondents or 62.14 percent had used QRIS for more than two years, indicating that respondents had sufficient experience to evaluate QRIS use at the post-adoption stage.

Table 2. Descriptive Statistics of Research Variables

Variable	**Mean**	**TCR (%)**	**Category**
Perceived Usefulness	4.03	80.69	High
Confirmation	4.02	80.32	High
Satisfaction	4.04	80.86	High
QRIS Usage Continuance	4.05	81.06	High
Bank Indonesia Support	4.04	80.77	High

The descriptive results show that all variables are in the high category. The highest mean was found in QRIS usage continuance, while the indicators that relatively need attention are ease of accepting cross-application payments, experiences that are better than expected, overall satisfaction with QRIS performance, the position of QRIS as the main payment method, and understanding of QRIS standardization.

Table 3. Measurement Model Test Results

Construct	***Outer loading***	**Cronbach alpha**	***Composite reliability***	***AVE***	***Remark***
CON	0.79-0.86	0.85	0.90	0.68	Valid and reliable
DBI	0.78-0.83	0.87	0.90	0.65	Valid and reliable
PER	0.79-0.87	0.93	0.95	0.75	Valid and reliable
PU	0.78-0.85	0.88	0.91	0.68	Valid and reliable
SAT	0.80-0.83	0.83	0.89	0.66	Valid and reliable

All indicators had outer loading values above 0.70. Cronbach's alpha, composite reliability, and AVE values also met general criteria, so the measurement model fulfilled convergent validity and internal reliability. The HTMT test showed that the relationships among the main constructs were below 0.90, indicating that discriminant validity was acceptable.

Table 4. R-square Results

Endogenous variable	**R-square**	**R-square adjusted**	**Interpretation**
PER	0.823	0.817	Strong
PU	0.739	0.737	Moderate-strong
SAT	0.767	0.763	Strong

The R-square value of QRIS usage continuance was 0.823, indicating that 82.3 percent of the variation in continuance could be explained by the variables in the model, while the rest was explained by other variables outside the study. The R-square values for perceived usefulness and satisfaction also indicated adequate predictive ability.

Table 5. Hypothesis Testing Results

Hypothesis	Original sample	t-statistics	p-values	Decision
CON -> PU	0.860	55.274	0.000	Accepted
CON -> SAT	0.306	4.501	0.000	Accepted
PU -> SAT	0.598	8.988	0.000	Accepted
PU -> PER	0.414	5.119	0.000	Accepted
SAT -> PER	0.214	2.618	0.009	Accepted
DBI x SAT -> PER	0.038	0.454	0.650	Rejected
DBI x PU -> PER	-0.059	0.665	0.506	Rejected

Based on the p-values, six hypotheses were accepted because they had $p < 0.05$, while two moderation hypotheses were rejected because their p-values were greater than 0.05. Thus, the direct effect paths were more dominant than the moderation paths of Bank Indonesia support in this research model.

DISCUSSION

The Effect of Confirmation on Perceived Usefulness

The results show that H1 is accepted. Confirmation has a positive and significant effect on perceived usefulness, with an original sample value of 0.860, t-statistics of 55.274, and p-values of 0.000. This means that the more consistent the actual experience of using QRIS is with MSME actors' initial expectations, the higher their perception that QRIS is useful for business activities.

This finding can be justified because MSME actors assess the usefulness of QRIS through real experience, not merely through the initial information they receive. When QRIS is proven to accelerate payments, assist cashless transaction acceptance, and make the business appear more professional, users' initial expectations are confirmed and become perceived usefulness. Field conditions support this explanation because the TCR values of confirmation and perceived usefulness were 80.32 percent and 80.69 percent, respectively, both in the high category. However, the CON3 and PU3 indicators were still relatively lower than other indicators, so experiences that exceed expectations and ease of accepting cross-application payments still need to be strengthened.

Theoretically, this result strengthens the Expectation Confirmation Model, which explains that confirmation is the basis of cognitive evaluation in forming perceived usefulness after users directly experience technology (Bhattacherjee, 2001). In other words, the usefulness of QRIS does not arise only from the technology design, but from the fit between the technology promise and daily transaction experience. This finding is in line with Loh et al. (2022), who show that confirmation strengthens perceived usefulness in the context of sustainable mobile technology use, and is consistent with Nguyen and Dao (2024), who position confirmation as an important factor in digital financial service continuance models.

The Effect of Confirmation on Satisfaction

The results show that H2 is accepted. Confirmation has a positive and significant effect on satisfaction, with an original sample value of 0.306, t-statistics of 4.501, and p-values of 0.000. This means that the more consistent the actual experience of using QRIS is with MSMEs' initial expectations, the higher the level of satisfaction felt by business actors.

This finding can be justified through the post-adoption evaluation process. MSME actors will feel satisfied when QRIS works according to transaction needs, is easy to use when customers make payments, and does not create meaningful obstacles in business operations. In the field, satisfaction had a TCR of 80.86 percent, and all indicators were in the high category. The SAT2 indicator, namely comfort in receiving payments using QRIS, was the highest indicator. This shows that MSME satisfaction is mainly formed by the comfort of receiving payments, although satisfaction with overall QRIS performance still needs to be maintained so that positive experiences do not occur only in certain service aspects.

Theoretically, this result is consistent with ECM because satisfaction is a direct consequence of confirmed experience (Bhattacherjee, 2001). If actual experience is not disappointing, users tend to provide a positive emotional evaluation of the technology. This finding is also in line with Sleiman et al. (2022), who found that positive experiences in mobile payments can increase user satisfaction, and supports the finding of Al Amin et al. (2024) that satisfaction with payment applications is formed through the evaluation of usefulness and usage experience that matches expectations.

The Effect of Perceived Usefulness on Satisfaction

The results show that H3 is accepted. Perceived usefulness has a positive and significant effect on satisfaction, with an original sample value of 0.598, t-statistics of 8.988, and p-values of 0.000. This result shows that the greater the usefulness of QRIS perceived by MSMEs, the higher their satisfaction with QRIS use.

This finding is logical because MSMEs tend to evaluate technology based on its contribution to business smoothness. QRIS is considered satisfying when it can accelerate the payment process, improve service efficiency, facilitate the acceptance of payments from various applications, and support a professional business image. Field conditions show that the PU5 indicator, namely the improvement of a professional business image, achieved the highest score in the perceived usefulness variable. This indicates that QRIS is understood not only as a payment instrument, but also as a symbol of MSME readiness to enter a more digital and modern business ecosystem.

This result strengthens ECM and the Technology Acceptance Model, both of which position perceived usefulness as a key belief in shaping users' evaluation of technology (Davis, 1989; Bhattacherjee, 2001). In the QRIS context, perceived usefulness becomes a rational reason for MSMEs to feel that the decision to use QRIS is the right decision. This finding is consistent with Putra et al. (2022), who show that perceived digital value can strengthen continuance intention, and is in line with Franque et al. (2023), who emphasize the importance of the fit between technology usefulness and the continuance use of mobile payments.

The Effect of Perceived Usefulness on QRIS Usage Continuance

The results show that H4 is accepted. Perceived usefulness has a positive and significant effect on QRIS usage continuance, with an original sample value of 0.414, t-statistics of 5.119, and p-values of 0.000. This result means that MSMEs that assess QRIS as useful will have a stronger tendency to continue using QRIS in their business activities.

This finding can be justified through the highly pragmatic character of MSMEs in choosing transaction tools. Technology will be maintained when its benefits are directly felt in business activities, for example when transactions become faster, recordkeeping becomes easier, customers have wider payment options, and the business appears more ready to serve digital consumers. Field conditions show that QRIS usage continuance had a TCR of 81.06 percent, with the highest indicator being the willingness to increase QRIS utilization. This means that the majority of respondents not only intended to maintain QRIS use but were also open to expanding its utilization in business transactions.

Theoretically, this result shows that perceived usefulness is an important bridge between usage experience and the decision to continue using technology. In ECM, users will continue to use a system if the system continues to be assessed as useful after the initial adoption stage (Bhattacherjee, 2001). This finding is in line with Sleiman et al. (2022) and Al Amin et al. (2024), who show that the benefits of digital payments are related to continuance intention. However, the field findings also note that the PU3 indicator remained in the moderate category, so interoperability and smoothness across applications still need to be maintained so that the usefulness of QRIS is more strongly felt by MSMEs.

The Effect of Satisfaction on QRIS Usage Continuance

The results show that H5 is accepted. Satisfaction has a positive and significant effect on QRIS usage continuance, with an original sample value of 0.214, t-statistics of 2.618, and p-values of 0.009. Thus, MSMEs that are satisfied with QRIS use tend to have a higher intention to maintain QRIS use in the future.

This finding can be justified because satisfaction creates psychological security to continue using the technology. When MSME actors feel comfortable receiving payments through QRIS and consider the decision to use QRIS to be the right decision, the motivation to return fully to cash transactions becomes smaller. Field conditions show that the indicator of comfort in receiving payments using QRIS was the highest indicator in the satisfaction variable. However, the coefficient of satisfaction on continuance was smaller than the coefficient of perceived usefulness, suggesting that MSMEs continue to use QRIS not only because they are satisfied, but especially because QRIS provides clear benefits for business operations.

Theoretically, this result is in line with ECM, which positions satisfaction as the main predictor of continuance intention (Bhattacherjee, 2001). Satisfaction is the result of affective evaluation that strengthens users' decision to continue using the system. This finding also supports Sleiman et al. (2022), who found that satisfaction plays an important role in the continuance intention to use mobile payments, and is consistent with Loh et al. (2022), who show that satisfaction is an important mechanism in the expectation-confirmation model for mobile technology.

The Moderating Role of Bank Indonesia Support in the Effect of Satisfaction on Continuance

The results show that H7 is rejected. The interaction between Bank Indonesia support and satisfaction on QRIS usage continuance was not significant, with an original sample value of 0.038, t-statistics of 0.454, and p-values of 0.650. This means that Bank Indonesia support was not proven to strengthen the effect of satisfaction on QRIS usage continuance.

This result can be justified by the field condition that Bank Indonesia support was already perceived as relatively high and evenly distributed among respondents, so its variation was not strong enough to increase the relationship between satisfaction and continuance. In other words, MSME actors who are already satisfied will tend to continue using QRIS, whether the level of Bank Indonesia support is higher or lower. This condition does not mean that Bank Indonesia support is unimportant, because the H6 result shows a significant direct effect. The role of Bank Indonesia support in this study appears more as a direct driver of continuance, not as a factor that strengthens the relationship between satisfaction and continuance.

From the ECM perspective, satisfaction is an internal mechanism that directly forms continuance intention (Bhattacherjee, 2001). When satisfaction is already high, additional external support does not necessarily strengthen its influence because the decision to continue has already been formed from the usage experience itself. This finding differs from extended ECM models that position external factors as moderators, such as Nguyen and Dao (2024), who examined the role of trust in digital financial service continuance. This difference shows that not all external factors work as moderators; in the context of MSMEs assisted by Bank Indonesia West Sumatra, institutional support is more appropriately understood as a direct factor that strengthens readiness and confidence in using QRIS.

The Moderating Role of Bank Indonesia Support in the Effect of Perceived Usefulness on Continuance

The results show that H8 is rejected. The interaction between Bank Indonesia support and perceived usefulness on QRIS usage continuance was not significant, with an original sample value of -0.059, t-statistics of 0.665, and p-values of 0.506. This means that Bank Indonesia support was not proven to strengthen the effect of perceived usefulness on QRIS usage continuance.

The justification for this finding can be understood from the nature of perceived usefulness, which is very close to MSMEs' daily operational experience. When business actors perceive QRIS as useful, they tend to maintain its use because the usefulness is directly related to transactions, customer service, and business image. Field conditions show that perceived usefulness and continuance were both in the high category, so QRIS usefulness had already become a sufficiently strong reason for MSMEs to continue using QRIS. Bank Indonesia support remains important, but its effect does not work by strengthening the relationship between usefulness and continuance.

Theoretically, this result refines ECM by showing that perceived usefulness can work as a strong direct predictor without always having to be strengthened by external support. This finding also enriches the study of Puspitasari and Salehudin (2022) on government support in the long-term adoption of cashless payments. If previous studies emphasize the importance of government support for adoption continuance, this study shows the form of its role more specifically, namely as a direct determinant of continuance, not as a moderator of the relationship between perceived usefulness and continuance.

Implications, Limitations, and Future Research Directions

Overall, the results show that QRIS usage continuance among MSMEs is formed through two main paths, namely the post-adoption evaluation path and the institutional support path. The post-adoption evaluation path can be seen from the effects of confirmation, perceived usefulness, and satisfaction, while the institutional path can be seen from the direct effect of Bank Indonesia support. Thus, the theoretical contribution of this study lies in extending ECM in the context of public digital payments, particularly by showing that regulator support can become a direct predictor of technology usage continuance.

From practical and policy perspectives, the results emphasize that strategies to strengthen QRIS should not focus only on increasing the number of merchants. Bank Indonesia, payment service providers, and local governments need to ensure that QRIS use provides a consistent experience, that MSMEs understand transaction fees and processes, that education is conducted repeatedly, and that mentoring is directed toward forming digital transaction habits. If these aspects are not strengthened, QRIS adoption risks stopping at the ownership of a payment channel without truly sustainable use.

Nevertheless, this study has limitations. First, the research object is limited to MSMEs that are partners and assisted businesses of Bank Indonesia West Sumatra, so generalization to MSMEs in general should be made carefully. Second, the study uses a cross-sectional design and therefore does not capture behavioral changes over time. Third, the study has not included other factors such as trust, habit, transaction fees, network quality, and customer preferences. Therefore, future studies are advised to use a longitudinal design, expand the research area, and add behavioral and infrastructure variables so that the understanding of QRIS usage continuance becomes more comprehensive.

CONCLUSION

QRIS usage continuance among MSMEs assisted by Bank Indonesia West Sumatra is influenced by post-adoption evaluation mechanisms and institutional support. Confirmation is proven to increase perceived usefulness and satisfaction. Furthermore, perceived usefulness, satisfaction, and Bank Indonesia support are proven to increase QRIS usage continuance. However, Bank Indonesia support is not proven to moderate the relationships of satisfaction or perceived usefulness with continuance.

Accordingly, strategies to improve QRIS continuance need to be directed toward strengthening real usage experiences, not merely expanding the number of merchants. Bank Indonesia needs to strengthen post-adoption education, clarify standardization information, encourage cost transparency, and strengthen technical mentoring. For MSMEs, QRIS needs to be positioned as an operational tool that helps service, recordkeeping, and business professionalism, not merely as an additional payment option.

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