The Effect of Business Scale in Moderating the Intention to Adopt QRIS: an Approach from The Theory of Acceptance and Use of Technology (UTAUT)

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Abstract:

This study aims to identify factors that influence the intention of Micro, Small and Medium Enterprises (MSMEs) in adopting QRIS (Quick Response Code Indonesian Standard) as a digital payment tool. Using the Unified Theory of Acceptance and Use of Technology (UTAUT) theoretical framework, this study examines the effect of Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Conditions (FC) variables on the intention to adopt QRIS. In addition, this study also introduces business scale as a moderating variable to explore how differences in business size can affect the relationship between these factors and adoption intention. This study uses a survey method by collecting data from 206 respondents who are MSME actors in Indonesia. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results show that EE, SI, and FC have a positive and significant influence on QRIS adoption intention, while PE has no significant influence. The findings also reveal that business scale has a moderating role in the effect of FC on QRIS adoption intention, suggesting that small businesses need more adequate support to adopt new technologies. This study makes a theoretical contribution by extending the UTAUT model through the addition of moderating variables of business scale, as well as providing practical implications for technology developers and policy makers to optimize technology adoption strategies in the MSME sector. The findings highlight the importance of paying attention to the specific needs and capacities of MSMEs in supporting digital transformation, as well as ensuring adequate facilities and technical support are available to encourage wider technology adoption.

Keywords: MSMEs; Technology Adoption; UTAUT; QRIS.

1. Introduction

The MSMEs sector is seen as a key catalyst for economic growth and regional development. (Bank Indonesia, 2022). Therefore, the need to develop the MSME sector is highly considered by the government, so that the movement of the economy and the increase in GDP can be more significant. Various initiatives have been undertaken to increase the adoption of technology and make it easier to conduct financial transactions among MSMEs. (Bank Indonesia, 2020; Financial Services Authority, 2023). Collaboration, technological advancement and innovation are important elements in the digital era to encourage the expansion of micro, small and medium enterprises (MSMEs) (Asofa & Sholihah, 2024). Bank Indonesia initiated the implementation of the Quick Response Code Indonesian Standard (QRIS) on August 17, 2019. The objective of this initiative is to promote financial inclusion and enhance the competitiveness of Micro, Small, and Medium Enterprises (MSMEs) in the digital age. (Bank Indonesia, 2022). QRIS is designed to facilitate transactions more quickly, safely and efficiently for businesses and consumers. Although the benefits offered by QRIS are numerous, the level of adoption among MSMEs still varies widely (Asofa & Sholihah, 2024).

Many micro-enterprises suffer from limited resources and access to technology, which inhibits them from adopting this digital payment system (Arthi & Vinitha, 2024; Istijanto & Handoko, 2022; Koay & Ang, 2024). Prior research indicates that variables such as perceived utility, user-friendliness, social impact, and facilitating circumstances significantly influence the choices made about technology adoption. (Venkatesh et al., 2003). However, there is a need to better understand how these factors may interact in the context of MSMEs in Indonesia, especially in terms of QRIS usage (Arthi & Vinitha, 2024; Okonkwo et al., 2023; Shin & Lee, 2021). This research aims to analyse the elements that can impact the intention and behaviour of micro, little, and medium enterprises (MSMEs) in adopting Quick Response Code Indonesian Standard (QRIS). The study will utilise the Unified Theory of Acceptance and Use of Technology (UTAUT) framework. The UTAUT model has demonstrated its relevance in accurately forecasting user behaviour regarding the acceptance and use of technology across different organisational contexts. (Abegao Neto & Figueiredo, 2023; Esawe, 2022; Istijanto & Handoko, 2022; Koay & Ang,

2024). This study intends to assess the applicability of the model in the context of the MSME sector, where intention and successful implementation are crucial factors in business operations.

In addition, previous research can also consider the existence of moderating variables, one of which is the level of education, income or age of the business owner (Abegao Neto & Figueiredo, 2023; Gonzalez-Tamayo et al., 2024). These factors can affect the relationship between the main variables of UTAUT and technology use behavior. In this study, a moderating variable in the form of business scale will be added to determine the increasing desire of MSME actors to use QRIS technology. By understanding the factors that can influence usage habits in adopting QRIS by MSMEs, this research is expected to provide useful insights for technology service providers in designing more effective strategies in supporting financial inclusion and the growth of MSMEs.

2. Literature Review

Thory of technology adoption

Cashless payment systems, utilising digital technology, encompass mobile payment (m-payment) and electronic payment techniques that do not involve physical currency. (Afandi et al., 2022). In addition to serving as a means of financial exchange, this digital payment system also provides many advantages in terms of storing payment instrument data, preserving cash, and expediting the payment procedure. Efficiency, efficacy, user-friendliness, availability, and openness (Arthi & Vinitha, 2024; Asofa & Sholihah, 2024). UTAUT developed by Venkatesh et al., (2003) is a theoretical approach system that is commonly used in explaining consumer intention to adopt new technology and their subsequent usage behavior. The UTAUT model consists of four primary components: performance expectancy, effort expectancy, social influencing, and facilitating factors. These constructs directly impact consumer attitudes and intentions when it comes to adopting mobile payments (m-payments).

Intention to use QRIS

The urge to utilise a technology is an individual's inclination to engage in specific activities that they deem beneficial. Intention to use refers to an attitude or behavior that shows the desire to use technology (Arthi & Vinitha, 2024; Istijanto & Handoko, 2022). In its application, the desire to use new technology such as QRIS still needs an introduction in its application (Asofa & Sholihah, 2024). The existence of cultural, social, personal and psychological factors will have an impact on usage intention (Farzin et al., 2021). Decisions made by customers will be influenced by psychological elements such as opinions, ideas and attitudes which will ultimately attract their interest in using a product or technology.

Performance Expectancy

According to Abegao Neto & Figueiredo, (2023), Venkatesh et al., (2003) and Zhang & Wareewanich, (2024) performance expectations explain the extent to which users are willing to use digital payment technology to produce performance benefits for them. In this case, prospective buyers who use mobile banking are expected to find it easy and fast to complete their transactions (Okonkwo et al., 2023). This hypothesis posits that users who anticipate that technology would enhance their performance are more inclined to have the intention to utilise the technology. (Asofa & Sholihah, 2024). In this case, the use of QRIS is believed to increase business efficiency and performance, thus encouraging them to adopt until sustainable use.

Hypothesis 1: Performance Expectancy affects the intention to use QRIS.

With the scale of business in micro, small and medium enterprises, their desire to use QRIS as a substitute for cash transactions varies widely (Asofa & Sholihah, 2024; Shin & Lee, 2021). At the micro scale, limited resources may hinder their intentions, whereas for small and medium scale businesses, high performance expectations towards QRIS usage may be more flexible in adopting new technologies, as they already have extensive resources than micro businesses.

Hypothesis 1a: Business scale can moderate the influence between performance expectancy on intention to use QRIS.

Effort Expectancy

Expectation effort refers to an individual's perception of the ease with which a particular technology, such as QRIS, may be operated.. (Ali et al., 2022). This expectation effort represents three characteristics, namely easy to use, systematic complexity and simplicity of operation (Abegao Neto & Figueiredo, 2023). The ease of operating a technology is an expectation for its users, so QRIS was created to meet these expectations. This hypothesis describes the expectations of a person's efforts in using the technology. In their expectations, the technology

offered must be very simple and easy to learn (Koay & Ang, 2024). So that they can adapt easily in using the QRIS technology.

Hypothesis 2: Effort Expectancy affects the intention to use QRIS.

In micro and small businesses, the existence of effort expectancy is very influential in the intention to use QRIS technology (Asofa & Sholihah, 2024; Bank Indonesia, 2020). With the ease of using QRIS, the greater their desire to adopt this technology in their daily transaction activities.

Hypothesis 2a: Scale of effort can moderate the influence between effort expectancy on intention to use QRIS.

Social Influencing

A study conducted by Ali et al., (2022); Arthi & Vinitha, (2024) and Koay & Ang, (2024) prove that individuals tend to follow what the group or authority that oversees them says. Likewise Esawe, (2022) and Shin & Lee, (2021) also concluded that the intention of adults to use digital payments is directly influenced by their peers and family members. With social opinion, it becomes a factor in influencing a person's intention to adopt or reject this technology (Gonzalez-Tamayo et al., 2024).

Hypothesis 3: Social Influencing affects the intention to use QRIS.

In microenterprises, the impact of social influence is generally greater since choices on the adoption of technology are typically made by one person or a small number of individuals who are strongly influenced by their social connections. (Koay & Ang, 2024). In small enterprises, social influence remains important but may be slightly reduced due to a more formal organizational structure and additional staff that can play a role in technology adoption decisions. Medium-sized enterprises, with more complex resources and structures, may rely more on internal analysis and formal evaluation than on social influence.

Hypothesis 3a: Business scale can moderate the influence between social influencing on intention to use QRIS.

Facilitating Conditions

Facilitating conditions pertain to the degree to which an individual perceives the system as highly organised and structured, and believes that the utilisation of technology may assist users. (Farzin et al., 2021; Istijanto & Handoko, 2022).. The existence of educational training on new technology provided is one of the facilitating conditions in encouraging the use of QRIS. This facilitating condition has three components, namely conscious behavior control, promotional conditions and compatibility. (Abegao Neto & Figueiredo, 2023). With the facilities that complement the use of QRIS, the desire of consumers will be even greater in adopting this technology. Providing 24-hour operational service facilities that consumers use if they experience problems can be an added value.

Hypothesis 4: Facilitating conditions affect the intention to use QRIS.

Within the context of MSME enterprises, the presence of favourable conditions is a key factor in enhancing the likelihood of adopting a technology. (Asofa & Sholihah, 2024). The existence of facilities that support a new technology will increase their intention to adopt this technology in their daily transactions.

Hypothesis 4a: Business scale can moderate the influence between facilitating conditions on the intention to use QRIS. The theoretical structure provided in this study is offered based on the hypothesis of the relationship between variables, which has been formulated according to previous assumptions.

3. Methods

Research design and measurement

This study focusses on quantitative research to investigate how behavioural factors influence the likelihood of MSME actors adopting QRIS as a payment method. To accomplish the goals of this study, a well planned questionnaire was created to gather responses from the intended group of participants. The quiz is tailored and personalised using a five-point Likert scale ranging from "strongly disagree" to "strongly agree". Venkatesh et al., (2003) have made adaptations and modifications to this research measurement.

Research sample, data collection method and data analysis

The participants in this study consisted of individuals who are engaged in MSME activities and proprietors of QRIS merchant establishments in the East Java region. Data gathering methods involving the distribution of surveys through both personal means and technological media. Purposive sampling is a strategy used to choose samples depending on certain criteria established by the researcher. The study collected a total of 206 samples, all of which consisted of MSME actors.

The analysis methodology employed in this study utilises Structural Equation Modeling-Partial Least Squares (SEM-PLS) and consists of three main stages: 1. Developing a measurement model (outer model), 2. Constructing a structural model (inner model), and 3. Conducting testing of hypotheses (Ghozali, Imam & Latan, 2017).

Figure 1. Frame Work
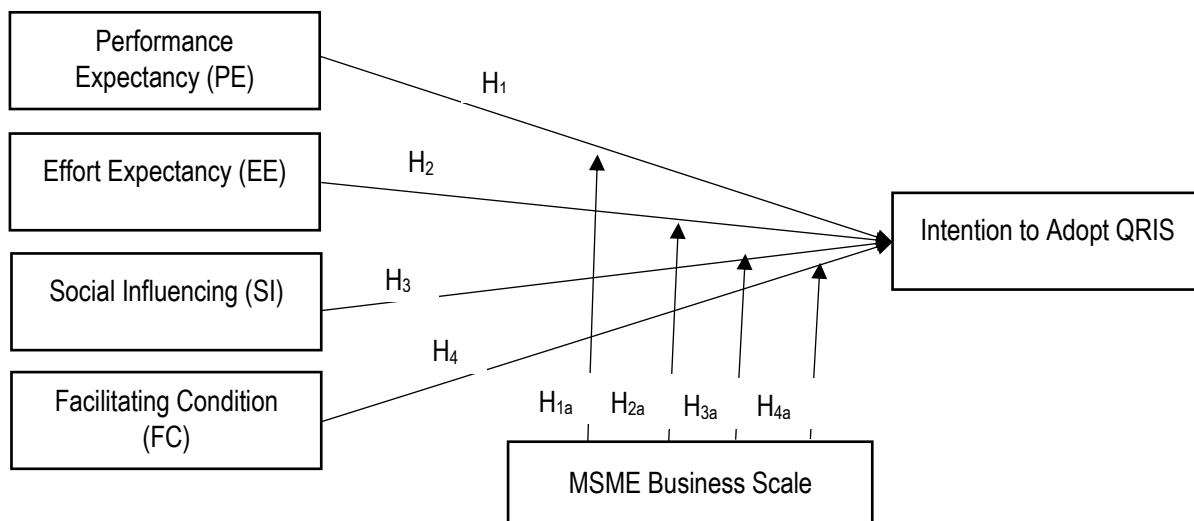
Source: data processed, 2024.

4. Findings and Discussion

Profile of respondents and intention to use QRIS

The data presented in table 1 explains the demographic details regarding gender, age, education, business scale and length of time in using QRIS. The characteristics present in this demographic data will be considered when describing the outcomes of this study.

The data shows that the majority of MSME users who are QRIS merchants are women (52.9%) rather than men (47.1%). From the sample taken, most MSME owners are of productive age ranging from 20 to 50 years (92.72%) and most have a Bachelor's degree (66.02%). In East Java province, the largest business scale is on a micro scale (69.9%) where the business capital is less than 2 billion and the owner of the MSME has used QRIS for the longest 2 - 3 years.

Table 1. Demographic attributes of the respondents

Variables	Item	Frequency	Percentage
Gender	Female	109	52,9
	Male	97	47,1
Age	20 - 30	28	13,6
	31 - 40	129	62,6
	41 - 50	34	16,5
	> 51	15	7,3
Education	Junior High School	1	0,49
	Senior High School	31	15,05
	Diploma	26	12,62
	Undergraduate	136	66,02
	Postgraduate	11	5,34
	Doctoral	1	0,49
Business Scale	Micro	144	69,90
	Small	53	25,73

Variables	Item	Frequency	Percentage
	Medium	9	4,37
Length of QRIS Usage	< 1 year	11	5,34
	1 - 2 years	27	13,11
	2 - 3 years	104	50,49
	> 3 years	64	31,07

Source: data processed, 2024.

Data Analysis

The purpose of this work was to utilise route analysis using SEM-PLS as the analytical method. This structural model is highly efficient in evaluating the impacts of mediation and moderation within a model framework. (Hair joseph f. Jr. William C. Black Barry J. Babin Rolph E., 2014). It is crucial to comprehend the mechanism underlying the correlation between variables and to pinpoint elements that can influence the intensity or direction of the correlation (Chin, W.W., Peterson, R.A. and Brown, 2008).

Measurement model

In SEM PLS, the first test carried out is the convergent validity test, where this test is used to see whether each statement item from each latent variable can be understood by respondents. In table 2 explains that all items in the loading factor exceed the recommended value of 0.6 (Hair joseph f. Jr. William C. Black Barry J. Babin Rolph E., 2014) while the resulting AVE value has a value between 0.582 to 1.000, which results in a value of more than 0.5 (Ghozali, Imam & Latan, 2017) so it can be stated that the questionnaire presented is valid.

Moreover, the reliability test is conducted to determine if an instrument can consistently yield reliable data in each measurement. Reliability of the construct is assessed by calculating Cronbach's alpha and composite reliability values. In table 2, the Cronbach's alpha and composite reliability values for each variable are found to be higher than the minimum required value of 0.6 for constructs. (Chin, W.W., Peterson, R.A. and Brown, 2008). This indicates that the constructs presented are proven to be reliable and reliable.

The subsequent phase involves conducting a discriminant validity test, which assesses the extent to which the construct effectively differentiates itself from other constructs by empirical means. The discriminant validity test in this study involved examining the outer loading value of each indicator and comparing it with the cross-loading value (Table 3). The cross loading value is always smaller than the value of all outer loading (Hair joseph, et. al, 2014) so it can be concluded that all statement items in the questionnaire are valid.

Table 2. Research constructs

Variables	Items	Loadings	Cronbach's alpha	Composite Reliability	AVE
Performance Expectancy	PE.1	0,843	0,860	0,905	0,704
	PE.2	0,842			
	PE.3	0,851			
	PE.4	0,819			
Effort Expectancy	EE.1	0,732	0,768	0,852	0,590
	EE.2	0,790			
	EE.3	0,812			
	EE.4	0,736			
Social Influence	SI.1	0,807	0,754	0,860	0,672
	SI.2	0,873			
	SI.3	0,776			
Facilitating Conditions	FC.1	0,735	0,761	0,847	0,582
	FC.2	0,796			
	FC.3	0,787			
	FC.4	0,731			

QRIS Adoption	QA.1	0,695	0,762	0,849	0,586
	QA.2	0,813			
	QA.3	0,824			
	QA.4	0,722			
Business Scale		1,000	1,000	1,000	1,000

Source: data output, 2024.

Structural Model

In order to evaluate the structural model, it is necessary to consider many key factors as outlined by Hair, Joseph, et al. (2014). These factors include the variance inflation factor (VIF), the coefficient of determination (R^2), the path coefficient (beta), and the hypothesis test. Figure 2 displays the path diagram of the analytical model.

Figure 2. Structural Model
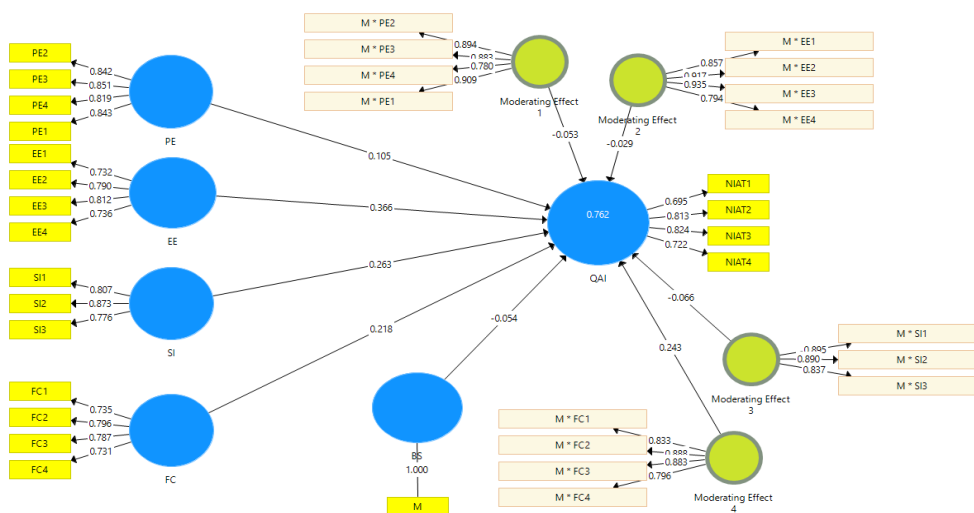
Source: data output, 2024.

Before entering the hypothesis test, it is necessary to test the relationship between variables, to avoid the appearance of confounding effects on the research results. Based on the output data, it is evident that the VIF value falls within the range of 2 to 3.8 (Table 4), which is below the minimal lower barrier of 5. (Hair joseph et. al., 2014) so it is proven that the data collected is free from multicollinearity. The result of the coefficient of determination (R square) in this study is 0.762, indicating that the model can account for 76.2% of the variability in the intention to adopt QRIS.

Table 3. Discriminant Validity

	Performance Expectancy	Effort Expectancy	Social Influencing	Facilitating Condition	QRIS Adoption Intention	Business Scale
PE1	0,843	0,423	0,513	0,463	0,512	0,132
PE2	0,842	0,573	0,586	0,636	0,588	-0,019
PE3	0,851	0,433	0,561	0,587	0,588	-0,083
PE4	0,819	0,525	0,549	0,575	0,579	-0,119
EE1	0,370	0,732	0,470	0,607	0,565	0,087
EE2	0,363	0,790	0,435	0,569	0,562	0,005
EE3	0,485	0,812	0,386	0,618	0,614	-0,112
EE4	0,565	0,736	0,481	0,607	0,619	-0,077

	Performance Expectancy	Effort Expectancy	Social Influencing	Facilitating Condition	QRIS Adoption Intention	Business Scale
SI1	0,623	0,489	0,807	0,579	0,581	0,041
SI2	0,574	0,445	0,873	0,491	0,585	0,019
SI3	0,424	0,483	0,776	0,436	0,584	-0,057
FC1	0,548	0,632	0,473	0,735	0,657	-0,093
FC2	0,489	0,613	0,423	0,796	0,563	-0,121
FC3	0,530	0,604	0,481	0,787	0,548	-0,055
FC4	0,491	0,524	0,490	0,731	0,530	-0,018
NIAT1	0,550	0,568	0,539	0,559	0,695	0,110
NIAT2	0,540	0,585	0,626	0,585	0,813	-0,097
NIAT3	0,515	0,580	0,518	0,607	0,824	-0,183
NIAT4	0,470	0,624	0,494	0,574	0,722	-0,220
M	-0,032	-0,036	0,001	-0,097	-0,131	1,000

Source: data output, 2024.

The structural model inside the study is assessed by testing the hypotheses of the research model. Figure 2 displays the magnitude of the explanatory variables and the standardised path regression coefficients, which indicate the impact of the variables that are predictors on the latent constructs estimated by the model.

The route analysis results provide confirmation for H2, H3, H4, and H4a, whereas the remaining hypotheses are not accepted (Table 4 and Figure 2). The findings indicate that the inclination to adopt QRIS is favourably affected by factors such as the perceived ease of use (β 0.366; p < 0.01), the influence of others (β 0.263; p < 0.01), and the availability of necessary conditions (β 0.218; p < 0.01). On the other hand, the size of a business has a moderate positive effect on the intention to implement QRIS, as indicated by a β coefficient of 0.243 and a significance level of p < 0.01.

Research in this study produces several important factors, namely MSME players in the East Java area have the confidence to adopt QRIS in transactions if driven by effort expectancy, social influencing and facilitating conditions. Of the four indicators in UTAUT, only performance expectancy has no effect on the desire of MSME players to adopt QRIS. This makes a new finding where the convenience offered (effort expectancy) by a new technology to its users will increase their desire to try the technology. This is because MSME actors feel that they are given a lot of benefits from using technology, in this case QRIS, in every transaction, for example they do not need to prepare change, the transaction process becomes easier and faster so that it does not cause queues and when using QRIS, the financial statements become transparent because all sales history will go into the bank account. This finding is in line with Abegao Neto & Figueiredo, (2023), Esawe, (2022), Farzin et al., (2021) and Okonkwo et al., (2023).

Table 4. Structural Estimates (hypotheses testing)

Hypothesis	Path	Coefficients	VIF	P value	R^2	Decision
H₁	PE -> QI	0,105	2,426	0,068	0,762	Not Supported
H₁ₐ	PE*M -> QI	-0,053	2,791	0,473		Not Supported
H₂	EE -> QI	0,366	2,806	0,000**		Supported
H₂ₐ	EE*M -> QI	-0,029	2,788	0,733		Not Supported
H₃	SI -> QI	0,263	2,059	0,000**		Supported
H₃ₐ	SI*M -> QI	-0,066	3,056	0,406		Not Supported
H₄	FC -> QI	0,218	3,481	0,001**		Supported
H₄ₐ	FC*M -> QI	0,243	3,842	0,011**		Supported

Note(s): *p < 0.05, **p < 0.01
Source: data output, 2024.

After one of the MSME players feels the benefits provided in using QRIS, it is likely that they will recommend it to the relations or communities they follow. Reviews from them will increase the desire of other MSME players to adopt QRIS, because they also want to experience the same benefits. From this, social influencing has a big influence in increasing the intention to use QRIS. The results in this study are in line with research Abegao Neto & Figueiredo, (2023), Ahmed & Sur, (2023), Farzin et al., (2021), Gonzalez-Tamayo et al., (2024), Istijanto & Handoko, (2022) and Koay & Ang, (2024). Additional evidence demonstrates that the enabling circumstances offered by the technology will generate user interest in experimentation. The greater the comprehensiveness of the facilities offered, the stronger their inclination to utilise them. In this scenario, the facilities offered may include assistance from service providers to address any issues encountered during transactions, such as round-the-clock support or streamlined complaint resolution processes. This condition does not necessarily occur, but if this facility is not provided, it will have an impact on the desire of MSME actors to use QRIS because they do not want losses in their business. The findings in this study are in accordance with research from Abegao Neto & Figueiredo, (2023), Farzin et al., (2021), Gonzalez-Tamayo et al., (2024), Istijanto & Handoko, (2022), Jayarathne et al., (2022) and Okonkwo et al., (2023).

And the last finding proves that business scale acts as a significant moderating variable because it determines the extent to which facilitating conditions can influence the intention of MSME actors in adopting QRIS. In smaller or micro-scale businesses, they tend to be more dependent on good facility conditions due to limited financial and labor resources. They tend to be more sensitive to the availability of adequate technical support and infrastructure before they feel comfortable adopting QRIS. The condition facilities they expect, one of which is the existence of strong technical support and sufficient training, will help them to increase their desire to use QRIS.

Medium-sized enterprises usually have enough resources to invest in new technology. They may already have better infrastructure support and a more experienced team in handling technology adoption. Thus, they are more likely to be less dependent on the same facility conditions as micro and small-scale MSMEs. In previous studies, no one has conducted research using business scale variables so that this is a new finding in the study. While performance expectancy is typically seen as a crucial element in the UTAUT model, this study found that performance expectancy does not significantly influence the intention of MSME actors to adopt QRIS. The lack of importance placed on performance expectancy, relative to effort expectancy, social influence, and facilitating settings, is likely the reason why most MSME players in East Java do not have faith in the performance of new technology. This finding is not in line with Abegao Neto & Figueiredo, (2023), Farzin et al., (2021), and Okonkwo et al., (2023), which prove that performance expectancy can be more important than effort expectancy. which proves that performance expectancy can influence a person's desire to use technology.

MSME players in East Java prefer QRIS as a non-cash payment tool that provides convenience in its application and the existence of recommendations from the MSME community is also an important factor for actors to increase their confidence in adopting QRIS. In addition, the existence of good support services will encourage users to adopt a product, the QRIS service is a digital product with sophisticated technological development, where in its use QRIS has been integrated with banking services in Indonesia.

Research Implications
Theoretical implications

This study specifically examines the determinants that impact the inclination of MSME participants to adopt QRIS in the East Java area. QRIS, used by Bank Indonesia in 2019, is a prominent non-cash transaction instrument in the financial technology sector. With the presence of QRIS, it is hoped that it can improve financial performance in micro, small and medium enterprises so that it can facilitate their financial system and ultimately make their services better. This research is a new finding because there is a business scale factor that makes a moderating variable in controlling the intention of MSME actors in adopting QRIS. Research can be used as reference material in enriching the UTAUT (Unified Theory of Acceptance and Use of Technology) theory by introducing business scale as a moderating variable in influencing the desire of MSME actors to adopt QRIS. This study also provides a new view of how business scale can affect the intention to adopt technology, especially QRIS, among MSME actors. This is a significant contribution because previous studies have not considered business scale as a factor that affects technology adoption intentions. The findings indicated that the factors of effort expectancy, social influence, and favourable environment exert a notable and favourable impact on the intention of MSME players to embrace QRIS. These findings align with prior research that highlights the significance of usability, social impact, and support infrastructure in influencing the adoption of technology.

Practical Implications

QRIS developers and the government can focus their marketing strategies on aspects of ease of use and adequate technical support. Emphasizing the ease and benefits gained from using QRIS can encourage more MSMEs to adopt this technology. Given the importance of effort expectancy and facilitating conditions, QRIS providers can offer comprehensive training and education to MSME players to ensure they feel safe and capable of using this technology. Relevant parties need to ensure adequate infrastructure support, especially for micro and small enterprises that may not have sufficient resources to invest in new technologies. This support can include access to technical services, maintenance, and provision of clear and accessible information.

Research Limitations

This research was conducted only on a sample of MSME actors in the East Java region so it is not certain that the results can be generalized to all MSMEs in various sectors or geographic areas. Second, this study captures perceptions at one point in time so it is possible that perceptions and intentions will change over time with the use of QRIS. Third, this study only takes into account one moderating variable, namely business scale, for further research, it can add moderating or control variables such as cultural, regulatory or security factors.

5. Conclusion and Recommendation

This study investigates the determinants that impact the inclination of MSMEs to embrace QRIS as a digital payment instrument, employing the UTAUT theoretical framework. The findings indicate that Effort Expectancy (EE), Social Influence (SI), and Facilitating Conditions (FC) are critical factors in determining the desire of MSME participants to adopt QRIS. Effort Expectancy pertains to the user's subjective assessment of the level of ease associated with utilising QRIS. This discovery demonstrates a positive correlation between the user's intention to adopt a technology and the level of ease with which it can be used. This underscores the need of technology providers in ensuring that the user interface is straightforward and user-friendly, while also providing sufficient training to minimise any technical challenges that users may experience. Social influence is a significant factor in affecting adoption intentions. The endorsement of digital payment technology by business partners, customers, and government legislation can serve as a catalyst for MSMEs to embrace QRIS. This aspect demonstrates that social influence or encouragement from the surrounding environment has a substantial influence on decisions about the adoption of technology. Facilitating Conditions include adequate technical support and infrastructure that enable technology adoption. This study found that when such support is available, MSME players are more likely to adopt QRIS. This includes the availability of secure and reliable payment infrastructure, as well as technical support that can assist users in overcoming problems that may arise.

In addition, this study identified business scale as a significant moderating variable. MSMEs with smaller business scale are more likely to need strong facilitating conditions to support QRIS adoption, compared to larger MSMEs that may have stronger internal resources. This suggests that efforts to increase QRIS adoption need to be tailored to the size and capacity of each MSME. In summary, this study offers valuable information for technology suppliers and policy makers to develop more efficient tactics in promoting the adoption of QRIS among MSMEs. These endeavours involve enhancing the user-friendliness of the technology, offering extensive training, and guaranteeing robust technical assistance. The research highlights the importance of tailoring support for MSMEs based on their business size in order to maximise the utilisation of digital payment technologies.

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