

# MSME Business Growth in Indonesia: is the Indonesian Standard Quick Response Code (QRIS) a Major Factor?

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## Abstract

This research aims to analyze the relationship between the adoption of the Quick Response Code Indonesian Standard (QRIS) on the business growth of Micro, Small and Medium Enterprises (MSMEs) in the food industry sector in Indonesia. The research methodology used in this research is quantitative, using SmartPLS 3.0 software. Primary data collection was carried out by taking a sample of respondents, namely MSME actors in Indonesia. A total of 200 samples were used for this research. Data was obtained through the use of Google Form, with indicator assessment carried out using a Likert Scale. Research findings show that there is a good correlation between the Quick Response Code Indonesian Standard (QRIS) in relation to the growth of MSME businesses in Indonesia, this is because QRIS lowers the barriers to entering the digital payment ecosystem by simplifying the process and reducing setup costs which are often a barrier. for MSMEs. This directly increases their access to a wider market and has the potential to increase business income. Operational efficiency is also improved through the use of QRIS. By utilizing QRIS, MSMEs can reduce the time and resources required to manage payment transactions.

## Abstrak

Penelitian ini bertujuan untuk menganalisis hubungan antara penerapan Quick Response Code Indonesian Standard (QRIS) terhadap pertumbuhan usaha Usaha Mikro, Kecil, dan Menengah (UMKM) di sektor industri pangan di Indonesia. Metodologi penelitian yang digunakan dalam penelitian ini bersifat kuantitatif, menggunakan perangkat lunak SmartPLS 3.0. Pengumpulan data primer dilakukan dengan mengambil sampel responden, yaitu pelaku UMKM di Indonesia. Sebanyak 200 sampel digunakan untuk penelitian ini. Data diperoleh melalui penggunaan Google Form, dengan penilaian indikator dilakukan dengan menggunakan Skala Likert. Temuan penelitian menunjukkan bahwa terdapat korelasi yang baik antara Quick Response Code Indonesian Standard (QRIS) dalam kaitannya dengan pertumbuhan usaha UMKM di Indonesia, hal ini dikarenakan QRIS menurunkan hambatan untuk memasuki ekosistem pembayaran digital dengan menyederhanakan proses dan mengurangi biaya setup yang seringkali menjadi penghalang. untuk UMKM. Hal ini secara langsung meningkatkan akses mereka ke pasar yang lebih luas dan berpotensi meningkatkan pendapatan bisnis. Efisiensi operasional juga ditingkatkan melalui penggunaan QRIS. Dengan memanfaatkan QRIS, UMKM dapat mengurangi waktu dan sumber daya yang dibutuhkan untuk mengelola transaksi pembayaran.

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## 1. Introduction

Indonesia's stable economic growth has created a conducive environment for the development of MSMEs. Increasing people's purchasing power contributes to higher demand for varied food products. MSMEs in the food industry continue to innovate to meet diverse consumer tastes. From traditional food to modern food, MSME players are competing to create unique and attractive products/ This product diversification not only increases competitiveness, but also opens up wider market opportunities, both at home and abroad (Udayana et al., 2021). The adoption of digital technology by MSMEs, especially in terms of marketing and distribution, has played an important role in the growth of this industry. This technology also allows MSMEs to operate more cost efficiently and reach markets without geographic boundaries. Technology adoption in Micro, Small and Medium Enterprises (MSMEs) businesses, especially in the food industry in Indonesia, faces several significant challenges (Bobby Setiawan, Marwah Khairani, 2022). While the importance of technology has been recognized in increasing efficiency and market reach, there are still obstacles that need to be overcome. One of the main challenges faced by MSMEs in adopting technology is limited access to capital. Advanced technologies often require large initial investments, which may be unaffordable for many MSMEs. Even though there are several financing programs and assistance from the government, the process of obtaining credit is still complicated and the requirements are sometimes difficult for small MSMEs to fulfill (Fasa et al., 2023).

The adoption of the Quick Response Code Indonesian Standard (QRIS) by Micro, Small and Medium Enterprises (MSMEs) in the Indonesian food industry is one phenomenon that shows the integration of technology in daily business practices. QRIS, launched by Bank Indonesia, aims to simplify payment transactions and make them more efficient and affordable for businesses and consumers. One of the main advantages of QRIS is the ease of carrying out payment transactions (Pratiwi, 2022). Customers just need to scan the QR code using the payment app they have on their phone. This eliminates the need for cash transactions and speeds up the payment process, thereby increasing operational efficiency and customer satisfaction. For MSMEs, this means easy access to digital payment systems that might previously have been considered complicated or expensive. QRIS provides a higher level of security compared to cash transactions (Sartini et al., 2023). Every transaction is carried out through strict verification and encryption, reducing the risk of money loss or fraud. This security is very important for MSMEs as it helps in building trust with their customers, which is an important asset in an economy dominated by digital transactions. By adopting QRIS, MSMEs can reduce costs associated with handling cash and using other conventional payment systems that often charge higher fees. QRIS offers a lower cost structure, which directly benefits MSME profit margins (Hamzah Muchtar et al., 2024).

The Quick Response Code Indonesian Standard (QRIS) is a significant payment innovation that can help increase the business growth of Micro, Small and Medium Enterprises (MSMEs) in the food industry in Indonesia. By using QRIS, MSMEs can reduce costs associated with cash management, such as transportation costs, security, and the risk of loss or theft. Additionally, QRIS often offers lower transaction fees compared to other digital payment methods, helping to increase profit margins for MSMEs (Farrell et al., 2022). With the ability to accept payments from various digital wallet applications, MSMEs can attract a wider range of customers, including those who prefer not to use cash. In addition, QRIS makes it easier for MSMEs to participate in the digital economy and reach a wider market, including customers from outside the region or even internationally who use digital payment applications while in Indonesia. QRIS offers various significant benefits for MSMEs in the food industry, from simplifying transactions and reducing operational costs to increasing security and supporting market expansion. Adoption of QRIS by MSMEs can not only increase their own efficiency and profits but also play an important role in advancing financial inclusion and the digital economy in Indonesia (Yunita, 2023).

Although the Quick Response Code Indonesian Standard (QRIS) is designed to increase efficiency and financial inclusion in the MSME sector, there are several problems that hinder its effectiveness in increasing the growth of MSME business in the food industry in Indonesia. One of the main obstacles is the lack of supporting infrastructure in some areas, especially in rural and

remote areas. Limited internet access and network instability can disrupt transaction processes that depend on the QRIS system. Without reliable connectivity, using QRIS becomes impractical and tends to be abandoned by MSMEs and consumers (Febriani et al., 2021). The low level of digital understanding and skills among MSME owners is another obstacle. Many MSME owners do not understand how QRIS works or its full benefits. This inability limits the adoption and effective implementation of QRIS, ultimately reducing the potential benefits that can be achieved from this payment technology. Even though QRIS offers lower transaction fees, there are still implementation and maintenance costs that must be borne by MSMEs such as purchasing compatible devices or upgrading existing systems. For MSMEs with limited resources, this cost can be a burden that prevents them from adopting QRIS (Sholikhah & Soesilo, 2023).

Research regarding the adoption of the Quick Response Code Indonesian Standard (QRIS) on the business growth of Micro, Small and Medium Enterprises (MSMEs) in the food industry in Indonesia has significant urgency. The need for this research is driven by several key factors related to the potential and challenges in implementing this technology. This research is important to evaluate how effective QRIS is in improving transaction processes in MSMEs. Although QRIS is designed to simplify transactions and reduce costs, it is important to assess whether its implementation in the field achieves the expected results (Gaol & Sigalingging, 2022). Research can help identify gaps between goals and implementation realities and offer practical solutions to overcome them. Research needs to investigate how consumers accept the use of QRIS in MSMEs. Given the high competition with other payment methods, it is important to understand the factors that influence consumer decisions in using QRIS. This will provide valuable insight into promotional and educational strategies that can increase consumer acceptance (Siahaan et al., 2023). This research can identify the main obstacles to QRIS adoption by MSMEs. Whether it is an issue of infrastructure, digital literacy, or resistance to change, a deep understanding of these barriers is essential to designing effective interventions. This research can produce recommendations for the government and financial institutions to adapt or design products and services that are more suited to the needs of MSMEs (Rettobjaan et al., 2023).

This research is more complex and has differences from previous research in that the current research focusing on QRIS differs significantly in scope and focus when compared to previous research. Older research is more general and examines the effects of digitalization broadly on MSMEs without a specific focus on digital payment tools. Meanwhile, QRIS research is very specific, focusing on the implementation and impact of the QR payment system which has been standardized by Bank Indonesia, which is a newer aspect and has high technological relevance (Rahman et al., 2024). The methodology in research on QRIS can be very different when compared to previous research. This research may use more modern methods and more up-to-date data to measure the direct impact of QRIS on MSME operations and revenues. More sophisticated analysis techniques. The variables used in QRIS research tend to be more specific and closely related to payment technology. This is different from previous research which focuses more on general aspects such as increasing revenue or customer growth without delving into aspects of payment technology (Princess Metri, 2024). Recent research on QRIS also has a more targeted impact on public policy and government strategies in supporting MSMEs. The results can directly influence digital payment policies and financial inclusion strategies implemented by governments, while previous research is broader and less rigorous when it comes to digital payment policies. Overall, the differences between this research and previous research lie in specificity, technology used, methodology, policy impact, and contemporary relevance. Understanding these differences is important to appreciate the unique contribution of current research and its potential impact on business practices and policy in Indonesia (Chusaeni et al., 2024).

This research aims to analyze the relationship between the adoption of the Quick Response Code Indonesian Standard (QRIS) on the business growth of Micro, Small and Medium Enterprises (MSMEs) in the food industry sector in Indonesia. This research provides important contributions both from a theoretical and practical perspective. Theoretically, this research enriches existing literature in digital finance by exploring the implementation of QRIS, a relatively new payment innovation in Indonesia. This provides theoretical insight into how digital payment technology can

be adopted and integrated into MSME operations. Thus, this research helps in understanding the variables that influence the success of financial technology in the MSME sector. This study also supports the development of technology adoption theory by providing empirical data on the factors that influence the acceptance and use of QRIS by MSMEs. These can include factors such as perceived usefulness, ease of use, and environmental support, all of which inform broader theories regarding technology adoption among small and medium-sized businesses. This research offers a new perspective on the intersection between technology and microeconomics, illustrating how technological solutions can help in overcoming some of the economic challenges faced by MSMEs, such as access to markets and operational efficiency. This adds to economic theory that considers the influence of technology on a micro scale.

From a practical perspective, the results of this research provide valuable insights for stakeholders, including governments and financial institutions, on how to design and implement strategies that enable wider and more effective QRIS adoption. This may include recommendations regarding education and training, technical support, and fiscal or financial incentives that can increase QRIS acceptance among MSMEs. This research provides direct practical benefits to MSMEs in the food industry by demonstrating ways in which QRIS can be utilized to improve their business operations. For example, by identifying best practices in digital transaction management or ways to increase customer engagement through convenient and secure payment technology. The results of this research can be used as a basis for developing policies that support the integration of digital technology in MSME operations. This includes policies aimed at improving digital infrastructure, regulations that ensure the security of digital transactions, and programs that support digital literacy among MSME owners. Thus, research on QRIS adoption by MSMEs in the food industry not only provides significant theoretical contributions but also has wide practical applications, which can help in formulating more effective strategies for the integration of payment technologies in the larger economy.

### **1.1. Theory Acceptance Model (Technology Acceptance Model - TAM)**

The Technology Acceptance Model (TAM) theory developed by Fred D. Davis in 1989 is one of the most influential frameworks in understanding how users accept and use technology. This model proposes that user acceptance of technology is directly influenced by two main factors: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). In TAM, Perceived Usefulness is defined as the level to which a person believes that using certain technology will improve his work performance. If users believe that technology will help them complete tasks faster or more efficiently, they are more likely to accept and use the technology (Toraman, 2022). In a business context, this could mean adopting systems that can increase productivity or reduce costs. Perceived Ease of Use refers to the degree to which a person believes that using a particular technology will be effortless. If technology is perceived as easy to use and learn, then users are more likely to accept the technology. Simplicity of the user interface, clear documentation, and effective technical support are factors that can improve this perception (Camilleri & Falzon, 2021).

The relationship between the Acceptance Model (TAM) Theory and the adoption of the Quick Response Code Indonesian Standard (QRIS) on the business growth of Micro, Small and Medium Enterprises (MSMEs) is that in TAM, Perceived Usefulness (PU) is the user's perception of the benefits that will be obtained from the use of technology. In the case of QRIS, MSMEs consider this technology useful because it makes payment transactions easier, speeds up the checkout process, and reduces errors that often occur in cash transactions. QRIS can also increase operational efficiency by integrating a more organized and automated payment system, which can ultimately increase productivity and business growth. Perceived Ease of Use (PEOU) in TAM refers to the level of ease of use of technology from the user's perspective. For QRIS, this includes ease of setup, daily use, and system maintenance. If MSMEs find QRIS easy to integrate into their operations and easy for consumers to use, they will be more likely to adopt this technology. TAM proposes that PU and PEOU contribute to attitudes toward use and intentions to use technology. In the context of QRIS, MSMEs' intentions to use QRIS in their daily operations will be influenced by their perception of the

usefulness and ease of use of QRIS. This includes direct financial benefits such as increased sales due to wider payment accessibility and reduced transaction costs (Ilmi et al., 2020).

## **1.2. Business Growth**

Business growth is a broad and multifaceted concept, referring to increasing a company's capacity to generate output or revenue, expand operations, and improve its performance in the long term. Business growth can be measured through various metrics, including increased revenue, market expansion, product diversification, and increase in human resources. One of the most basic indicators of business growth is increasing revenue. This growth can occur through increasing sales volume, increasing product selling prices, or a combination of both (Prasetyo, 2020). An increase in revenue not only shows success in selling products or services, but also shows the company's ability to attract and retain customers. Business growth can also be identified through geographic expansion or the conquest of new markets. This could include opening new branches, entering international markets, or expanding into previously untapped market segments. These expansions expand a company's reach and strengthen its presence in a broader market, often increasing revenue potential (Sadikin et al., 2023).

Diversification of products and services is a vital growth strategy, where companies develop or introduce new products to expand their customer base. Diversification can reduce business risk by spreading out dependence on one product or market. It also allows companies to leverage their technology or core competencies in new and creative ways. Increasing production capacity and operational efficiency is an important part of business growth (Sahoo & Ashwani, 2020). This can be achieved through investment in new technology, optimization of production processes, or improving employee qualifications and training. Higher efficiency allows companies to produce more output at lower costs, which directly contributes to profits. Business growth often requires adding or developing human resources. Recruitment of new employees, training and skills development, and improving employee welfare are key components in business growth (Official et al., 2020). A qualified and motivated workforce increases innovation and productivity, which are the driving forces of long-term growth. Business growth, therefore, is a complex phenomenon involving quantitative increases in output and revenue as well as qualitative increases in operations, innovation, and human resource capacity. Each aspect of this growth interacts and contributes to the progress and sustainability of the business in a competitive market environment (Prasetyo et al., 2020).

## **1.3. Micro, Small and Medium Enterprises (MSMEs)**

MSME or Micro, Small and Medium Enterprises is a term used to describe business categories based on business scale in the Indonesian economy. In accordance with Law Number 20 of 2008, MSMEs are categorized into three types, namely micro, small and medium enterprises, each of which has certain criteria based on assets and annual turnover. Micro businesses are businesses with maximum assets of IDR 50 million, excluding land and buildings where the business is located, with a maximum annual turnover of IDR 300 million (Kurniawan et al., 2023). Small businesses are those that have assets of more than IDR 50 million to IDR 500 million, excluding land and buildings where the business is located, and an annual turnover of IDR 300 million to IDR 2.5 billion. Meanwhile, medium businesses are businesses that have assets between IDR 500 million to IDR 10 billion, and annual turnover between IDR 2.5 billion to IDR 50 billion (Vitria Susanti, A. Zuliansyah, 2024).

The growth of Micro, Small and Medium Enterprises (MSMEs) in Indonesia is one of the important pillars of the national economy. MSMEs not only contribute significantly to Indonesia's Gross Domestic Product (GDP), but are also the main source of employment for the majority of the population (Alhidayatullah et al., 2022). In recent years, the growth of MSME businesses in Indonesia has been accelerated by the adoption of digital technology. Digitalization has enabled MSMEs to expand their markets, reach a wider range of customers and improve operational efficiency. Apart from that, digital technology also facilitates MSMEs in managing inventory and finances better, which really helps in making the right business decisions (Yani et al., 2023).

#### 1.4. Quick Response Code Indonesian Standard (QRIS)

QRIS, or Quick Response Code Indonesian Standard, is a payment system using QR codes designed by Bank Indonesia (BI) as part of an initiative to promote and simplify digital payment transactions in Indonesia. Introduced in 2019, QRIS allows users to make payments via their payment app or e-wallet by simply scanning the QR code displayed by the seller. The QR code used is standard, so the same code can be used by all payment services registered with QRIS, facilitating cross-platform transactions without the need for different codes or payment terminals (Sinulingga, 2022). The main aim of developing QRIS is to increase financial inclusion by simplifying access to digital payment services for all levels of society. By uniting various payment service providers in one QR code standard, QRIS offers an efficient and easy solution that supports micro and small transactions at small merchants and MSMEs. This is very important considering the large number of MSMEs in Indonesia which contribute significantly to the national economy. QRIS is also designed to support government programs to encourage a cashless economy (Pinandita et al., 2023).

QRIS not only makes it easier for consumers to make payments, but also helps business actors, especially MSMEs, to increase operational efficiency. With the implementation of QRIS, traders no longer need to manage large amounts of cash, which is often associated with security risks and errors in calculations. Additionally, QRIS provides an easier and faster way to track and record transactions, which is important for better financial management and business planning (Sulistyaningsih & Hanggraeni, 2022). However, despite its many advantages, QRIS adoption still faces several challenges. These challenges include limited user knowledge and understanding of digital payment technology, as well as the need for wider and more stable internet infrastructure, especially in rural areas. Apart from that, there is still resistance from some traders who are used to cash transactions. Therefore, it is important for the government and payment service providers to continue to provide education and outreach about the benefits of QRIS, as well as expand the accessibility of digital infrastructure to support wider adoption of this system (Octavianingrum et al., 2023).

## 2. Methods

The research adopts a quantitative design and an associative approach in seeing cause and effect relationships (Sugiyono, 2017). There is an independent variable (X), namely Quick Response Code Indonesian Standard (QRIS) and the dependent variable (Y) namely MSME Business Growth. The type of data is primary data which is obtained directly from research respondents. The research was conducted in Indonesia with the research period being carried out in the period January to May 2024. Sampling used purposive sampling with certain considerations, namely: MSMEs operating in various sectors of the food industry, MSMEs operating in Indonesia, businesses that have been operating for at least three years One, businesses that use or are at least familiar with the use of financial technology, namely digital payment applications, namely the Quick Response Code Indonesian Standard (QRIS) (Purwanto, 2019). Bougie and Now (2019) And Roscoe (1975) states that a suitable sample size in research is between 30 and 500 samples. Therefore, based on these sampling techniques and theories, the sample used and representative in this research is as many as 200 respondents MSME actors in the food industry sector. Data collection uses a questionnaire with via Google Form and the indicator measurement used is a Likert Scale.

**Table 1. Operational Variables**

No.	Variable	Indicator	Scale
1.	Quick Response Code Indonesian Standard (QRIS) (X1)	Financial Accessibility Operational Efficiency Transaction Security Market and Customer Reach Customer satisfaction	Ordinal
2.	MSME Business Growth (Y)	Increased revenue Geographic and Market Expansion Diversification of Products and Services	Ordinal

No.	Variable	Indicator	Scale
		Increased Capacity and Operational Efficiency Human Resource Development	

The research used SmartPLS 3.0 statistical software to carry out data analysis. Statistical results from data processing using the outer test and inner model test. Instrumentation in the validity test uses a convergent validity measurement tool which is compared with the loading factor of the latent variable and the data is declared valid with the number of results obtained being more than 0.70.(Hamid, 2019). The reliability test is carried out by looking at the numbers from the Cronbach's Alpha value or looking at the numbers from the Composite reliability with a data validity limit of more than 0.70. The inner model test is carried out as a form of seeing the suitability of the model by looking at the R-Square number and hypothesis testing is carried out by looking at the p-value and the t-statistic value (Hendriyadi, 2019).

### 3. Results and Discussion

Validity testing is a verification process used to determine the extent to which a research instrument is able to accurately measure what it is intended to measure. Validity is about the relevance and effectiveness of measuring instruments in carrying out measurement functions in accordance with the research objectives. This process is important in scientific research because it ensures that the results obtained from a study can be interpreted correctly and are relevant to the hypothesis or research question being studied. In the context of research, validity is a critical component that helps researchers ensure that the conclusions drawn from research data are based on accurate and representative measurements of the variables studied. This concept is important because it provides a guarantee that the results obtained are relevant and reliable in theoretical and practical contexts. Validity plays an important role in testing the strength of the relationship between research variables and in verifying that the results are not caused by factors other than the variables studied. Through careful validation of all these aspects, researchers can be more confident in drawing conclusions from their data. This process not only increases confidence in research findings, but also strengthens the contribution of science in understanding complex and dynamic phenomena. Validity, thus, becomes the middle point that ensures reliability and relevance in scientific research.

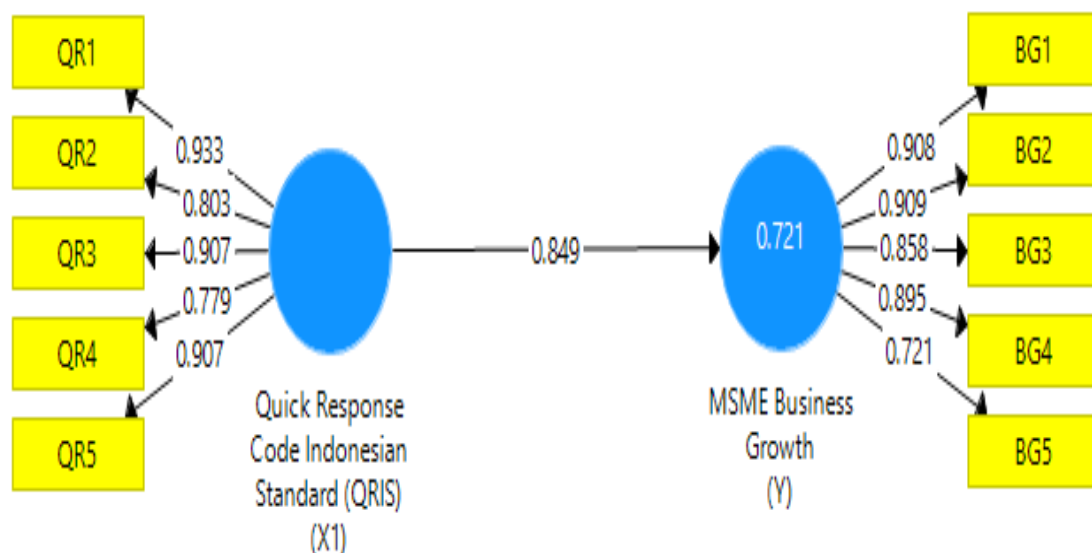


Figure 1. Test results from the measurement model

Validity is an important aspect in research that refers to the extent to which a measurement instrument actually measures what it is supposed to measure. It is an evaluation process that determines whether the measurement methods used in research accurately reflect the variables they are intended to measure. Without adequate validity, the conclusions resulting from a study may be



inaccurate or even misleading, risking the integrity of the research. Validity tests play a crucial role in confirming that the measuring tools used in research, such as questionnaires, are valid and relevant to produce the desired data. Overall, validity testing is a critical component in research that not only strengthens confidence in the results obtained but also ensures that the research instruments work as they should. Through rigorous validation, researchers can make meaningful and valid contributions to a field of knowledge, ensuring that their findings can be used to advance our understanding of the world.

**Table 2. Results of Validity Test Implementation**

Variable	Indicator	Loading Value	Information
Quick Response Code Indonesian Standard (QRIS) (X1)	QR.1	0.933	Valid
	QR.2	0.803	Valid
	QR.3	0.907	Valid
	QR.4	0.779	Valid
	QR.5	0.907	Valid
MSME Business Growth (Y)	BG.1	0.908	Valid
	BG.2	0.909	Valid
	BG.3	0.858	Valid
	BG.4	0.895	Valid
	BG.5	0.721	Valid

The results of the validity test can be seen in Table 2 which shows that the indicators for each variable, namely the Quick Response Code Indonesian Standard (QRIS) (X1) and MSME business growth (Y) in Indonesia, all show values above 0.70. Therefore, this value significantly shows a validity level above 0.70 which is often interpreted as an indication that the instrument has strong construct validity. In the context of measurement, construct validity refers to the degree to which an instrument is able to accurately measure the theoretical construct it wishes to measure. A high score on the validity test indicates that the questions in the questionnaire or test truly reflect the QRIS construct and MSME business growth as hypothesized in the study. The validity test results which show a value above 0.70 as listed in Table 4 are indicative of the reliability and accuracy of the research instrument. This emphasizes the importance of conducting thorough validity tests in research to ensure that the data produced is valid and can be used to make appropriate inferences regarding the phenomenon under study.

**Table 3. Results of Reliability Test Implementation**

Variable	Cronbach's Alpha	Composite Reliability
Quick Response Code Indonesian Standard (QRIS) (X1)	0.917	0.938
MSME Business Growth (Y)	0.911	0.934

Reliability testing is a fundamental process in verifying the consistency of a measurement instrument in research. This process is essential to ensure that research tools provide stable and repeatable results on the same subjects or objects under similar conditions. The reliability test results presented in Table 3 show that the Quick Response Code Indonesian Standard (QRIS) variable (X1) achieved a Cronbach's Alpha coefficient of 0.917 and a Composite Reliability coefficient of 0.938. Likewise, the MSME business growth variable (Y) in Indonesia obtained a Cronbach's Alpha coefficient of 0.911 and a Composite Reliability coefficient of 0.934, this shows a very good level of reliability of this measurement instrument. The Cronbach's Alpha coefficient of 0.917 for the QRIS variable and 0.911 for the MSME business growth variable indicates that the items in each measurement scale have a high internal correlation. A Cronbach's Alpha value higher than 0.7 is generally considered adequate to demonstrate good reliability in the context of social and business research, so a value close to 0.9 is very satisfactory and shows that the items in the questionnaire are very consistent in measuring the same construct.



Meanwhile, the Composite Reliability coefficient which is higher than 0.9, namely 0.938 for QRIS and 0.934 for MSME business growth, also provides further evidence regarding the reliability of the instrument. Composite Reliability is a more robust measurement than Cronbach's Alpha because it considers different item loadings, providing a more accurate estimate of the reliability of the construct in the measurement model. This combination of high Cronbach's Alpha and Composite Reliability values indicates that the instrument used to measure the influence of QRIS on MSME business growth is well designed and is capable of producing consistent data if measurements are carried out repeatedly under similar conditions. This is important in quantitative research because it ensures that variability in the data is caused by differences between respondents rather than instability of the measuring instrument. Thus, the results of this high reliability test support the validity and integrity of the entire research, allowing researchers and interested parties to have high confidence in the findings produced. This paves the way for further analysis and accurate interpretation of the extent to which QRIS influences MSME business growth, which is an important contribution to a broader understanding of the effects of digital payment technology on this vital economic sector in Indonesia.

**Table 4. Structural Model Test Results**

Hypothesis	Original Sample	T - Statistics	P - Value
Quick Response Code Indonesian Standard (QRIS) (X1) -> MSME Business Growth (Y)	0.849	37,888	0,000

The results of structural model testing as shown in Table 4 in this research show the results of statistical analysis which examines the relationship between the use of the Quick Response Code Indonesian Standard (QRIS) and the business growth of Micro, Small and Medium Enterprises (MSMEs) in Indonesia. Based on the data obtained, the numerical coefficient for the QRIS construct in the original sample is 0.849, with a highly significant t-statistic value of 37.888. This value is very important in indicating the strength and significance of the relationship being tested. A t-statistic value that exceeds the critical value of 1.96 indicates that the relationship between QRIS and MSME business growth is statistically significant at a high level of confidence. In quantitative research, a t-statistic value that is greater than the critical value indicates that we can reject the null hypothesis (which states there is no relationship between the variables studied), and accept the alternative hypothesis which states there is a positive relationship between the two variables. Furthermore, the p value was recorded at 0.000, well below the widely accepted significance threshold of 0.05, providing further evidence of the strength of this relationship. This very low p value indicates that the probability of error in rejecting the null hypothesis (type I error) is very small, thus strengthening confidence in the validity of the findings. Thus, it can be concluded that the Quick Response Code Indonesian Standard (QRIS) has a significant influence on the growth of MSME businesses in Indonesia. The implications of these findings are quite substantial, considering that QRIS is designed to facilitate financial transactions and encourage operational efficiency, both of which are important factors in the growth and scalability of MSMEs.

**Table 5. Test Results from R-Square Values on Endogenous Variables**

Variable	R Square	Adjusted R Square
MSME Business Growth (Y)	0.721	0.720

The test results shown in Table 5 provide important insights into the influence of the Quick Response Code Indonesian Standard (QRIS) on the business growth of Micro, Small and Medium Enterprises (MSMEs) in Indonesia. Table 6, in particular, highlights the R-square value of 0.721 or 72.1%, which indicates the large contribution of the independent variable (QRIS) to the dependent variable (MSME business growth). This high R-square value is strong evidence that QRIS has a substantial and significant influence on MSME business growth. R-square, or coefficient of determination, is a statistic that shows the proportion of variance in a dependent variable that can be explained by the independent variables in the model. In the context of this research, a value of

72.1% implies that around 72.1% of the variability in MSME business growth can be explained by the use of QRIS. This is a strong indicator of the effectiveness of QRIS as a tool to drive economic growth for MSMEs, considering the significance and magnitude of the value generated. However, there is 27.9% of the total variance that is not explained by this model, which indicates that there are other factors that also influence MSME business growth that are not included in this research model. These factors may include external variables such as macroeconomic conditions, changes in government policy, technological innovations outside QRIS, or internal factors such as managerial capabilities and company resources. Identification and integration of these factors in further research could provide a more comprehensive understanding of the dynamics influencing MSME growth. Thus, these findings provide strong empirical validation that QRIS is an important factor in supporting the growth of MSMEs in Indonesia. QRIS's success in driving this growth shows the potential for similar policies or improvements to the digital payment system to strengthen the MSME sector, which in fact is a vital component of the national economy.

### **3.1. Quick Response Code Indonesian Standard (QRIS) and MSME Business Growth**

The research results provide the fact that the Quick Response Code Indonesian Standard (QRIS) has an influence on the growth of MSME businesses in Indonesia, this is because Financial Accessibility is one of the critical aspects that is improved by QRIS. This system allows MSMEs to receive payments more easily from various sources without the need for complex or expensive payment infrastructure. QRIS lowers the barriers to entry into the digital payments ecosystem by simplifying the process and reducing setup costs which are often a barrier for MSMEs. This directly increases their access to a wider market and has the potential to increase business income. Operational efficiency is also improved through the use of QRIS. By utilizing QRIS, MSMEs can reduce the time and resources required to manage payment transactions. The QRIS system minimizes the need for cash transactions, which often require more time in terms of calculating and managing money. In addition, the digitization of transactions makes financial and administrative recording easier, which is essential for effective business management and planning. Transaction Security is another important consideration. QRIS provides a secure platform for payment transactions, reducing the risk of cash loss and fraud. This enhanced security attracts more customers who choose to transact digitally, which further helps in building trust and brand integrity of MSMEs. Market and Customer Reach are expanded through the implementation of QRIS. By enabling easy and fast payments, MSMEs can attract customers who prefer to use digital payment methods. This is especially important in today's economy where consumers tend to seek convenience and speed in transactions. With QRIS, MSMEs can sell their products and services to customers they might not have reached before. Customer satisfaction increases due to the seamless payment experience offered by QRIS. Ease of use, speed of transactions, and reduced errors in payments influence customers' positive perceptions of a business. This satisfaction not only increases the chances of repeat transactions but also increases the customer's likelihood of recommending the business to others, which can significantly increase business growth. Overall, this research shows that QRIS is a very effective tool in supporting and accelerating the growth of MSMEs in Indonesia through improvements in various operational and financial dimensions. This emphasizes the importance of digital payment technology in the modern economy and the strategic role it can play in supporting the MSME sector which is the backbone of the national economy.

The Technology Acceptance Model (TAM) theory developed by Fred D. Davis in 1989 is one of the most influential frameworks in understanding how users accept and use technology. This model proposes that user acceptance of technology is directly influenced by two main factors: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) (Camilleri & Falzon, 2021). The relationship between the Acceptance Model (TAM) Theory and the adoption of the Quick Response Code Indonesian Standard (QRIS) on the business growth of Micro, Small and Medium Enterprises (MSMEs) is that in TAM, Perceived Usefulness (PU) is the user's perception of the benefits that will be obtained from the use of technology. In the case of QRIS, MSMEs consider this technology useful because it makes payment transactions easier, speeds up the checkout process, and reduces errors that often occur in cash transactions. QRIS can also increase operational efficiency by integrating a

more organized and automated payment system, which can ultimately increase productivity and business growth. Perceived Ease of Use (PEOU) in TAM refers to the level of ease of use of technology from the user's perspective (Ilmi et al., 2020). The research results have a direction in line with the findings (Latuheru & Foenay, 2021), the use of QRIS in interactions that occur between company owners and clients is beneficial for the growth of culinary businesses and has a positive impact. Evidence from research findings (Kala'lembang, 2021) shows that digitalization of payments involves using QRIS as a smart solution to increase the productivity and income of small and micro companies. This is a solution that is included in the digitalization of payments. Research findings (Mangifera & Mawardi, 2022) shows that during digital transactions, sales and profits increase. Consequently, small companies in the food and beverage industry will be encouraged to take advantage of the benefits of digital transformation as an opportunity to improve their financial performance.

#### **4. Conclusion**

The research findings show that the Quick Response Code Indonesian Standard (QRIS) has an influence on the growth of MSME businesses in Indonesia, this is because Financial Accessibility is one of the critical aspects that is improved by QRIS. This system allows MSMEs to accept payments more easily from various sources without the need for complex or expensive payment infrastructure. QRIS lowers the barriers to entry into the digital payments ecosystem by simplifying the process and reducing setup costs which are often a barrier for MSMEs. This directly increases their access to a wider market and has the potential to increase business income. Operational efficiency is also improved through the use of QRIS. By utilizing QRIS, MSMEs can reduce the time and resources required to manage payment transactions. The QRIS system minimizes the need for cash transactions, which often require more time in terms of calculating and managing money. In addition, the digitization of transactions makes financial and administrative recording easier, which is essential for effective business management and planning.

Theoretically, this research provides valuable insights to enrich the literature regarding technology adoption in the MSME sector, which historically may not be as rapid or intensive as in large companies. In particular, this research helps in testing and validating existing theories about the diffusion of technological innovation among MSMEs. By focusing on QRIS, an innovation in payment systems, this research provides new insights into the factors influencing the acceptance and use of financial technology in this sector. This includes understanding how economic, social, and technological factors interact to influence technology adoption decisions. Additionally, this research tests and extends the technology adoption model by adding new dimensions specific to QRIS and the Indonesian context, which are often underrepresented in more global studies. This offers an opportunity to compare and understand how local market uniqueness and regulations influence the adoption and effectiveness of digital payment technologies.

Practically, the findings of this research have significant implications for stakeholders in the MSME sector, regulators and financial service providers. For MSME owners, a better understanding of the benefits and challenges of implementing QRIS can help in making more informed decisions about adopting this technology. This includes benefits such as operational efficiency, transaction security, and market expansion, all of which can help them increase business growth and sustainability. For regulators and policymakers, the results of this research offer empirical evidence that can be used to design more effective policies and target incentives that support the use of QRIS. The research also highlights the need to pay attention to factors such as digital infrastructure, user education, and technical support, all of which are critical to the successful adoption of payments technology among MSMEs. Finally, for financial service providers, insights from this research can help in designing products and services that better suit the needs of MSMEs. This includes creating payment solutions that are not only technologically advanced but also user-friendly and economical for MSMEs, thereby driving further adoption and integration in their business activities.

This research provides valuable insights but also faces several limitations that are important to note. One of the main limitations is the limited geographic coverage. Research is often conducted only in a few urban or sub-urban areas that have better access to digital technology and

infrastructure. This may not reflect the conditions of MSMEs in rural areas or areas with lower access to technology, where QRIS adoption may face greater barriers. Therefore, the research results may not be generalizable to all sectors of the food industry in Indonesia, especially in less developed areas. Additionally, control variables in research are often limited. Many external factors that can influence MSME business growth, such as macroeconomic conditions, government regulations and market dynamics, are not fully taken into account. This limitation may cause research to be unable to capture the true influence of QRIS separately from other factors that also influence business growth. These limitations must be considered by researchers, policy makers and industry practitioners when formulating strategies to encourage QRIS adoption among MSMEs in the food industry sector. Expanding research to cover broader aspects and using a more integrative approach can help to overcome these limitations and provide more comprehensive insights.

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