

SWOT ANALYSIS WITH IMPORTANCE PERFORMANCE ANALYSIS (IPA) MODEL ON QRIS TECHNOLOGY SERVICE FOR MSMEs

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Abstract: This study applies Importance-Performance Analysis (IPA) and (Strengths, Weaknesses, Opportunities, and Threats) SWOT analysis to evaluate Quick Response Code for Payment (QRIS) technology services in Micro, Small, and Medium Enterprises (MSMEs). IPA results show variables in Quadrant I (top priority for improvement), Quadrant II (maintain quality), Quadrant III (low priority), and Quadrant IV (may be excessive). In this context, data security risks and QRIS controllability were identified as top priorities. SWOT analysis, based on IPA results, reveals MSME strengths in security risk control and QRIS controllability, as well as weaknesses in variables that are considered low-priority or possibly excessive. Opportunities lie in potential improvements to data security and QRIS controllability, while threats may arise from variables that are considered low priority or may be overrated. Recommendations involve focusing on developing data security, maintaining good service quality, and efficient resource allocation according to the needs of MSMEs.

Keywords: Technology, QRIS, SWOT, IPA, MSMEs

INTRODUCTION

The rapid development of technology has had a positive impact on the growth and development of micro, small, and medium enterprises (MSMEs). This impact is not only confined to MSMEs but has also brought about significant changes in the overall life of the community (Latifah & Syafitri, 2023). The advancement of technology has influenced various aspects of daily life, such as the way we work, communicate, learn, and socialize. This has enhanced efficiency and comfort in many daily processes and activities. According to (Surya et al., 2021), their research reveals that the implementation of technology in various business aspects has a significant positive impact on micro, small, and medium enterprises (MSMEs). Such impacts not only affect the performance of MSMEs themselves but also have positive repercussions on overall economic growth. Technological advancements present new opportunities for MSMEs to sustainably expand their businesses, create larger prospects, and enhance their competitiveness in an increasingly competitive market (Bhattacharya et al., 2020). Furthermore, technological advancements across various sectors have led to significant changes in the lives of the community at large. The progress in technology has influenced various aspects of daily life, including the way we work, communicate, learn, and socialize. This has enhanced efficiency and convenience in many daily processes and activities, but it has also introduced new challenges that need to be addressed to optimize the benefits of these technological developments.

In the increasingly widespread digital era, the internet has become a primary

foundation for consumers to seek information and make product purchases. In this context, micro, small, and medium enterprises (MSMEs) that have not embraced digital technology risk missing opportunities to expand market share and enhance their competitiveness. The adoption of digital technology is key for MSMEs to maintain relevance amid changing times. One strategy they can pursue is leveraging cloud computing technology, which can enhance their operational efficiency. Additionally, the sophistication of current technology presents a significant opportunity for MSME players to develop their businesses in the increasingly invisible realm of digital competition. The intense competition in the business world demands entrepreneurs to seek innovative and effective strategies to gain a competitive edge. Therefore, the success of MSMEs is determined by their ability to continuously innovate and enhance the utilization of technology. The study conducted by (Aditi et al., 2021) asserts that technology and competition are two primary factors that concurrently exert a positive and significant influence on the development of micro, small, and medium enterprises (MSMEs). In a rapidly changing business environment, MSMEs capable of adapting to the latest technology and devising effective strategies to cope with competition will have better opportunities for growth and success. Therefore, it is crucial for MSMEs to continue investing in technology and formulate appropriate strategies to confront the increasingly intense competition in this digital era.

One of the technologies that has emerged and has the potential to provide positive impact is the Quick Response Code Indonesian Standard technology (QRIS). In the work presented by (Mahyuni & Setiawan, 2021), QRIS is acknowledged as a solution that allows customers to make payments easily using QR codes. However, despite the various benefits it offers, many Micro, Small, and Medium Enterprises (MSMEs) have not yet adopted QRIS technology. Several factors contribute to this phenomenon, such as a lack of understanding of QRIS technology among micro, small, and medium enterprises (MSMEs). Additionally, limited access to adequate technology and digital infrastructure poses a constraint. Finally, the lack of support from the government and financial institutions in facilitating the adoption of QRIS by MSMEs is also an issue that needs attention (Khusaeni & Widowati, 2022). Despite existing studies on QRIS technology and its adoption, there remain gaps in research that delve deeply into the specific challenges faced by MSMEs in adopting this technology. Current research often fails to identify in detail the differences among various segments of MSMEs, such as differences in industry sectors, business sizes, and levels of technological readiness. Additionally, there is a lack of literature addressing the specific impacts of government and financial institution support on the adoption of QRIS. Previous studies have also not fully applied SWOT Analysis and Importance-Performance Analysis (IPA) methodologies in the context of QRIS for MSMEs.

In this context, this study aims to address these gaps by providing an in-depth analysis of the strengths, weaknesses, opportunities, and threats associated with QRIS technology services for MSMEs. The SWOT Analysis and Importance-Performance Analysis (IPA) Approach will be utilized to evaluate aspects that need improvement and to offer recommendations to enhance the performance and adoption of QRIS among MSMEs. Adapting this methodology, as applied to fintech services in Islamic banks by (Utami & Basya, 2020), to QRIS is expected to provide significant contributions to a better understanding of QRIS technology adoption. This study also aims to provide strategic recommendations for government and financial institutions to enhance support for QRIS

adoption, enabling MSMEs to more effectively leverage this technology and improve their competitiveness in the digital era.

METHODS

This research is a quantitative study that applies the Importance Performance Analysis (IPA) method and SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis. The primary data utilized in this study were collected through a questionnaire administered to 100 randomly selected MSME owners who utilize QRIS technology services. The rationale for selecting a sample size of 100 participants randomly was to ensure that the respondents were actual MSME owners directly involved in decision-making regarding QRIS usage, rather than employees. This approach aims to obtain accurate and in-depth insights from business owners about the effectiveness and challenges of QRIS, given that owners possess a more relevant perspective on strategic and operational decisions. By focusing on MSME owners as respondents, the study minimizes potential bias that could arise if employees, who may not be directly involved in strategic decisions, were included, thus ensuring that the data collected is more representative and valid in reflecting the experiences with QRIS. The results of the SWOT model analysis will be utilized to determine priority improvements based on the Importance Performance Analysis (IPA) of the QRIS technology services provided to MSMEs.

The research begins with several initial steps: First, the identification of QRIS service attributes to be evaluated. This may include attributes such as user-friendliness, transaction speed, security, transaction costs, and others. Second, conducting a survey and questionnaire completion for MSME customers using QRIS services. In this survey and questionnaire completion, respondents are asked to provide assessments for each identified service attribute. These assessments can be given on a scale of 1 to 5, where 1 represents very poor performance and 5 represents excellent performance. The results of the questionnaire involving 100 customers are then analyzed using the SWOT approach with the IPA model to identify the ideal expectations related to QRIS Technology services desired by MSMEs. Thus, it is expected to provide benefits to Bank Indonesia and the Indonesian Payment System Association in the development of QRIS services, specifically for MSMEs in Sidoarjo.

Third, Importance-Performance analysis. Calculate the average scores for Importance and Performance assessments from the survey results. Typically, Importance is calculated as the average Importance rating, and Performance is calculated as the average Performance rating. Finally, identify the results using the SWOT formula: Strengths: Attributes with high Performance and high Importance scores are strengths. Weaknesses: Attributes with low Performance and high Importance scores are weaknesses. Opportunities: Attributes with high Performance and low Importance scores are opportunities. Threats: Attributes with low Performance and low Importance scores are threats.

SWOT Analysis

The use of SWOT analysis in the business context is a crucial method employed for formulating effective strategies and decision-making. This approach aids in identifying

the potentialities and challenges that can impact the overall success of a project, product, or organization. Throughout this process, we recognize internal strengths such as resources, capabilities, and competitive advantages, while also pinpointing weaknesses that need addressing. Additionally, we evaluate market opportunities that can be exploited and threats that may be encountered. This comprehensive analysis assists in making informed decisions and devising strategies to enhance the overall performance and competitiveness of the business entity. SWOT analysis, as mentioned by (Sasoko & Mahrudi, 2023), is a systematic approach involving internal factors, such as strengths and weaknesses, as well as external factors, such as opportunities and threats, to formulate organizational strategies. A better understanding of these factors aids in more effective strategic planning, informed decision-making, and organizational performance enhancement.

According to (Anggreani, 2021), SWOT analysis is a situational and descriptive analysis that organizes situations and conditions based on their respective contributions. (Maulana & Patrikha, 2021) add that SWOT analysis is a useful tool for evaluating company performance and designing strategies to improve service quality. The goal is to identify the strengths and weaknesses of the company, the opportunities and threats it faces, and use this information to develop appropriate strategies (Tumbel et al., 2022).

Importance Performance Analysis

The Importance Performance Analysis (IPA) method was introduced by Martila and James in 1977. IPA is utilized to evaluate the performance of an organization or company by comparing the levels of importance and performance within two frameworks, which are then depicted in a quadrant with importance values on the vertical axis and performance values on the horizontal axis. The center of this quadrant represents the average value of both dimensions, forming four quadrants that serve as the basis for necessary policy recommendations. Variables analyzed in IPA can include products, services, or business processes. IPA can assist in determining the priority areas for improvement that an organization or company should focus on. The IPA analysis process involves collecting data from various respondents, including customers, employees, or other relevant stakeholders, as explained by (Ramadhanu et al., 2020).

According to (Wiguna et al., 2020), based on the Cartesian quadrant in the Importance-Performance Analysis (IPA) method, the approach is divided into four categories: "Concentrate Here," "Keep Up with the Good Work," "Low Priority," and "Possibly Overkill." The interpretation of quadrants in the Importance-Performance Analysis (IPA) method is as follows:

- a. Concentrate Here: Variables located in this quadrant are considered significant and expected to make a substantial contribution. However, currently, their level of importance and performance has not yet reached satisfactory standards.
- b. Keep Up with the Good Work: Variables in this quadrant are deemed important and expected. Currently, their importance and performance are satisfactory, indicating the need for maintenance.
- c. Low Priority: Variables in this quadrant have low levels of importance and performance, and therefore, do not require excessive priority or attention.
- d. Possibly Overkill: Variables in this quadrant are considered not very important but exhibit good performance.

Literature Review

QRIS (Quick Response Code Indonesian Standard)

QRIS is a QR code standard developed in Indonesia to support electronic payment transactions. QRIS enables financial service providers and Micro, Small, and Medium Enterprises (MSMEs) to use a single QR code that can be read by various payment applications such as GoPay, OVO, Dana, and others. The presence of QRIS in Indonesia represents a significant innovation in enhancing the efficiency and interoperability of electronic payment systems (Siburian et al., 2023). Since its introduction in 2020, QRIS has experienced rapid growth in Indonesia. The government and financial institutions have collaborated to ensure widespread adoption of QRIS across all sectors, including Micro, Small, and Medium Enterprises (MSMEs). This initiative aims to enhance financial inclusivity, reduce the reliance on cash transactions, and expedite the transaction process. According to (Wahyudi, 2023), in his research, QRIS plays a crucial role in transforming the paradigm of payment systems by providing a standardized QR code that can be accepted by various financial service providers and payment applications. Through QRIS, the transaction process becomes more efficient as customers can easily make payments using their digital wallets without the need for physical cash or cards. This system creates high interoperability, enabling micro, small, and medium enterprises (MSMEs) to receive payments from various sources with a uniform QR code.

MSMEs (Micro, Small, and Medium Enterprises)

According to (Syahputra et al., 2023), Micro, Small, and Medium Enterprises (MSMEs) are a business sector that supports economic growth and inclusivity in various countries. MSMEs play a strategic role in job creation, particularly at the local level, and contribute to income distribution by providing business opportunities to various segments of society. The diversity of MSMEs encompasses various industries, such as trade, creative industries, small-scale manufacturing, and services, making a vital contribution to economic productivity and competitiveness. The direct involvement of owners in operational activities makes MSMEs agents of social and economic change in local communities, fostering collaboration with other businesses and promoting economically just sustainability. Furthermore, MSMEs also play a crucial role in preserving cultural heritage and local identity. Many MSMEs engage in the production of goods and services that embody traditional values and local arts, creating differentiation and uniqueness in products for the global market. Despite facing various challenges, such as limited capital, restricted market access, and changing consumer trends, MSMEs remain the backbone of a sustainable economy. Therefore, government support, access to adequate financing, and technology integration, such as QRIS, are key to empowering MSMEs to compete in the evolving digital and global economy.

The Role of Qris Services in MSMEs

The role of QRIS in empowering Micro, Small, and Medium Enterprises (MSMEs) is not only limited to transaction efficiency but also extends to enhancing financial accessibility. MSMEs adopting QRIS can reach a broader customer base, including those more inclined towards digital payments. Additionally, QRIS provides MSMEs with access to more accurate transaction data, aiding them in better financial management. With QRIS, MSMEs can thrive and compete in the digital economy, reducing reliance on cash transactions and enhancing their competitiveness in adapting to changes in

consumer trends and technology. In this framework, QRIS also plays a strategic role in fostering financial inclusivity for MSMEs. By offering easily accessible digital payment solutions, QRIS helps MSMEs reduce dependence on cash transactions, improve operational efficiency, and broaden their access to various financial services. This assists MSMEs in enhancing competitiveness, expanding market share, and overall empowering them to face dynamic economic challenges.

State of the Art: QRIS Utilization Among MSMEs

Current research on the adoption and utilization of QRIS (Quick Response Code Indonesian Standard) among MSMEs reveals significant insights into how this technology is being embraced and its impacts on business operations.

- a) **Perceptions and Benefits of QRIS:** (Setiawan & Mahyuni, 2020) found that MSMEs view QRIS as a highly advantageous payment method, emphasizing its simplicity and efficiency in transaction processing. QRIS is appreciated for reducing physical contact and facilitating automatic transaction recording. This highlights the importance of perception and perceived benefits in evaluating QRIS adoption among MSMEs.
- b) **Challenges and Acceptance of QRIS:** (Abizar et al., 2022) identified that while QRIS facilitates transaction recording and provides financial benefits, challenges such as network conditions and transaction costs persist. This underscores the need to understand the technical barriers and costs that affect QRIS acceptance in traditional market sectors, which also apply to MSMEs.
- c) **Impact on Consumer Satisfaction:** (Tambunan et al., 2022) explored the impact of QRIS on consumer satisfaction, focusing on perceived benefits, ease of use, and associated risks. Their findings indicate that consumer satisfaction is significantly influenced by how well QRIS meets user expectations in terms of ease of use and benefits, as well as risk management. This is crucial for understanding the factors affecting QRIS adoption decisions among MSMEs.
- d) **Perceived Risks and Efficiency:** (Fauziyah & Prajawati, 2023) provided insights into the perceived benefits, transaction efficiency, and risks associated with QRIS, including issues like unstable internet connections. Their study reveals that although QRIS offers efficiency, risks such as connectivity problems remain a concern for MSMEs. This emphasizes the need for improved technical solutions to address the challenges affecting QRIS usage.
- e) **Factors Influencing Adoption:** (Berliani et al., 2023) analyzed factors influencing MSMEs' perceptions and intentions to use QRIS, such as knowledge of QRIS, ease of use, perceived benefits, and social and environmental factors. Their research highlights that knowledge and various external factors play a crucial role in shaping MSMEs' attitudes towards QRIS adoption.

Overall, this state of the art demonstrates that previous research has established a robust foundation regarding the benefits, challenges, and influencing factors of QRIS adoption among MSMEs. Integrating these findings provides a comprehensive understanding of QRIS usage dynamics across different contexts and lays the groundwork for further research aimed at evaluating and enhancing QRIS implementation among MSMEs. Based on the findings and conclusions from the

aforementioned journals, various categories of perceptions towards QRIS services for MSMEs can be classified.

Table 1. presents the research variables

Perceptions of QRIS Services in the Context of Micro, Small, and Medium Enterprises (MSMEs)	Indicators of QRIS attributes	Variable
1. Perceived Ease of Use (Noersanti & Ernawati, 2020)	. QRIS is easy to learn.	X1
	. QRIS is controllable.	X2
	. QRIS is highly flexible.	X3
	. QRIS is easy to use.	X4
	. QRIS is clear and understandable.	X5
2. Perceived Benefits (Ramaditya & Sati, 2019)	. QRIS facilitates payment transactions (Effectiveness).	X6
	. QRIS expedites payment transactions (Accomplish faster).	X7
	. QRIS provides additional benefits during transaction completion (Advantageous).	X8
	. QRIS instills a sense of security when conducting payment transactions (Useful).	X9
3. Risk Perception (Salsabila et al., 2021)	. Internet Connection Risk (Specific Risks)	X10
	. QRIS Usage Cost Risk (Experiencing Loss)	X11
	. Data and Financial Security Risks (Perception of Being at Risk)	X12

Source: Journal reference (2023)

RESULTS AND DISCUSSION

Importance Performance Analysis

The analysis of the Interpretative Phenomenological Analysis (IPA) method yields Cartesian quadrants, which are subsequently interpreted based on the involved variables. In the context of research on technology services for Small and Medium Enterprises (UMKM), the results of the IPA analysis and quadrants can be delineated as follows:

Table 2. Results of the analysis using the IPA method.

Variable	Average	
	Performance	Importance
QRIS is easy to learn X ₁	4.39	4.41
QRIS is controllable X ₂	4.17	4.29
QRIS is highly flexible X ₃	4.33	4.21
QRIS is easy to use.X ₄	4.45	4.29
QRIS is clear and understandable X ₅	4.02	4.20
QRIS facilitates payment transactions (Effectiveness) X ₆	4.38	4.28
QRIS expedites payment transactions (Accomplish faster) X ₇	4.42	4.31
QRIS provides additional benefits during transaction completion (Advantageous) X ₈	4.00	4.14
QRIS instills a sense of security when conducting payment transactions (Useful) X ₉	4.24	4.30
Internet Connection Risk (Specific Risks) X ₁₀	4.21	4.32
QRIS Usage Cost Risk (Experiencing Loss) X ₁₁	3.73	4.12
Data and Financial Security Risks (Perception of Being at Risk) X ₁₂	4.01	4.41
Average	4.20	4.27

Source: Processed data (2023)

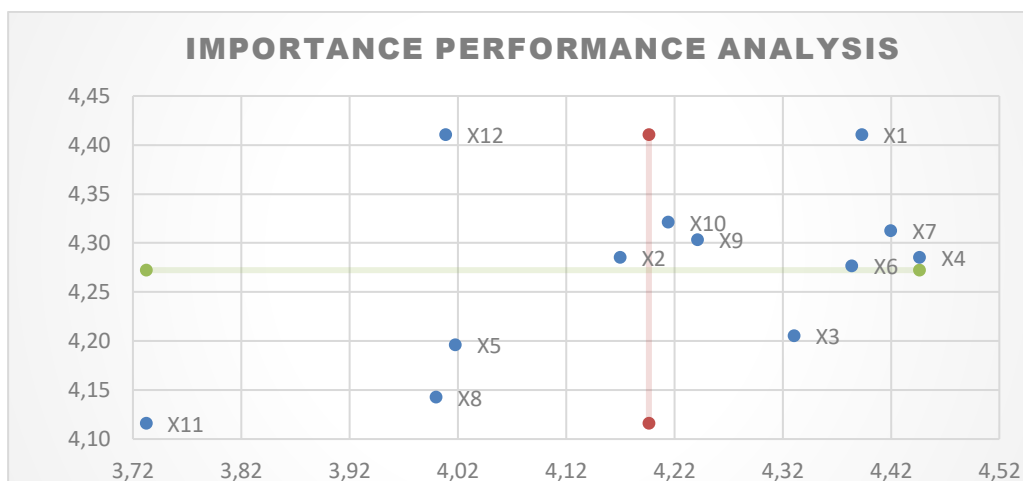


Figure 1. depicts the Cartesian quadrant resulting from the research study.
Source: Processed data (2023)

The interpretation of the analysis results is as follows:

- a. The variable of data and financial security risk (X12) and the controllable QRIS variable (X2) are classified in quadrant I (concentrate here). These variables are considered crucial for SMEs and are expected to perform well, but the current conditions are not satisfactory. Therefore, they become a top priority for improving their quality in QRIS technology.
- b. The variable QRIS easy to learn (X1), variable QRIS easy to use (X4), variable QRIS facilitates payment transactions (X6), variable QRIS accelerates payment transactions (X7), variable QRIS provides a sense of security during payment transactions (X9), and variable Internet connection risk (X10) are classified in quadrant II (keep up the good work). SMEs consider these variables important, and their performance is already satisfactory. Therefore, their quality in QRIS technology should be maintained.
- c. The variable QRIS very clear and understandable (X5), variable QRIS provides additional benefits when completing transactions (X8), and variable cost risk of using QRIS (X11) are classified in quadrant III (low priority). These variables have low importance and performance levels, so there is no need to prioritize or pay excessive attention to them.
- d. The variable QRIS very flexible (X3) is classified in quadrant IV (possible overkill). This variable performs well but has a relatively low level of importance. Therefore, these variables should be maintained but are not a priority for improving their quality.

SWOT Analysis

Based on the IPA analysis above, we can conduct a SWOT analysis to evaluate the strengths, weaknesses, opportunities, and threats associated with the use of QRIS technology for MSMEs:

Strengths:

- a) Risk control of data and financial security (X12) and the ability to control QRIS (X2) fall into quadrant I (concentrate here). This indicates that MSMEs have the potential to enhance the quality and performance of QRIS technology, making it a strength.
- b) Variables of QRIS that are easy to learn, use, facilitate transactions, speed up transactions, provide a sense of security, and address internet connection risks are in quadrant II (keep up the good work). This shows that MSMEs have strengths in these aspects and can maintain their quality.

Weaknesses:

- a) Variables of QRIS considered low priority (quadrant III) indicate weaknesses in the importance or performance of these aspects. MSMEs need to pay attention to avoid neglecting essential factors and may need to improve or enhance these aspects.
- b) QRIS variables considered possibly excessive (quadrant IV) suggest that despite good performance, their importance is low. MSMEs need to ensure that resources are not overly focused on these aspects and can be allocated efficiently.

Opportunities:

- a) There are opportunities to enhance data and financial security (X12) as well as the ability to control QRIS (X2) in QRIS technology to provide greater benefits for MSMEs.
- b) With QRIS variables already in the satisfactory criteria (quadrant II), MSMEs can leverage this momentum to continually maintain and optimize their quality.

Threats:

- a) Threats may arise from aspects considered low priority (quadrant III), as ignoring them can lead to a decline in the performance of important QRIS technology.
- b) Variables considered possibly excessive (quadrant IV) can also pose a potential threat if not managed properly, as resources may be inefficiently allocated.

Table 3. Results of SWOT Analysis on QRIS Technology Services
References
There are no sources in the current document.

No	Analysis	Description	Evaluation
1	Strengths	<ol style="list-style-type: none"> 1. Security Risk Management and Control Capability of QRIS (X12, X2) 2. Variables of QRIS that are Easily Learned, Utilized, Facilitate Transactions, etc. (X1, X4, X6, X7, X9, X10) 	<p>Prioritize the development and enhancement of data security aspects and QRIS control capabilities. Focus on innovation and technological updates to maintain this competitive advantage.</p> <p>Continuously uphold and optimize the quality of these aspects. Conduct training and education for MSMEs to ensure maximum understanding and utilization.</p>
2	Weaknesses	<ol style="list-style-type: none"> 1. Low Priority QRIS Variables (X5, X8, X11) 2. QRIS Variables Potentially Excessive (X3) 	<ol style="list-style-type: none"> 1. Improve or enhance the quality in aspects considered low priority. Reevaluate whether these assessments remain relevant to the developments and needs of SMEs. 2. Allocate resources wisely. If a variable holds low importance, consider reducing emphasis on this aspect and reallocating resources to more crucial matters.
3	Opportunities	<ol style="list-style-type: none"> 1. Opportunities to Enhance Data Security and Control Capabilities of QRIS (X12, X2) 2. Utilization of Satisfactory QRIS Variables (X1, X4, X6, X7, X9, X10) 	<p>Seize this momentum to develop innovative solutions that enhance data security and the control capabilities of QRIS.</p> <p>Leverage the already good quality to support the promotion and marketing of QRIS services to other MSMEs. Enhance integration and compatibility with other systems.</p>
4	Threats	<ol style="list-style-type: none"> 1. Threats from Low-Priority Variables (X5, X8, X11) 2. Threats Arising from Potentially Excessive Variables (X3) 	<ol style="list-style-type: none"> 1. While considered low priority, do not entirely disregard it. Reassess the needs and potential impacts if these aspects are neglected. 2. Ensure resources are not overly concentrated on potentially excessive aspects. Set limits and allocate resources efficiently.

Source: Processed data (2023)

CONCLUSION

based on the SWOT analysis of QRIS technology services for SMEs indicates a need for improvement and enhancement in the areas of data and financial security, as well as the control capabilities of QRIS, which should be prioritized. Meanwhile, efforts should continue in aspects that are already satisfactory to leverage the positive momentum. Areas considered low priority and potentially too flexible require a strategic review to determine appropriate improvement measures. Opportunities can be seized through improvements in security and control within QRIS, while threats arise from the potential decline in performance due to neglecting aspects deemed low priority. Therefore, strategic planning and wise resource allocation are essential to enhance the competitiveness of QRIS technology services for SMEs.

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