Pendahuluan

1. **Positive Impact of Technology on MSMEs and Community Development:**
   1. The rapid development of technology has positively influenced the growth of Micro, Small, and Medium Enterprises (MSMEs), leading to significant changes in community life [1].
   2. Technology has enhanced efficiency and comfort in daily processes, affecting the way we work, communicate, learn, and socialize [1].
   3. Research indicates that technology implementation in various business aspects has a positive impact on MSMEs, contributing to overall economic growth [2].

2. **Opportunities and Challenges in the Digital Era:**
   1. The internet's prominence as a foundation for consumer information and product purchases emphasizes the need for MSMEs to adopt digital technology to expand market share [3].
   2. The adoption of digital technology, including cloud computing, is crucial for MSMEs to maintain relevance and enhance operational efficiency [3].
   3. The digital era introduces both opportunities and challenges, requiring continuous innovation and effective technological utilization for MSME success [3].

3. **Technology and Competition as Determinants of MSME Development:**
   1. MSME success is influenced by their ability to adapt to the latest technology and devise effective strategies to cope with intense competition in the business world [4].
   2. The study asserts that technology and competition concurrently exert a positive and significant influence on MSME development [4].

4. **QRIS Technology for MSMEs:**
   1. The Quick Response Code Indonesian Standard (QRIS) technology has the potential to positively impact MSMEs by facilitating easy payments using QR codes [6].
   2. Despite its benefits, QRIS adoption by MSMEs faces challenges such as a lack of understanding, limited technology access, and insufficient support from the government and financial institutions [6].

5. **SWOT Analysis and IPA Approach for QRIS Technology:**
   1. Utilizing SWOT Analysis with the Importance-Performance Analysis (IPA) Approach can reveal strengths, weaknesses, opportunities, and threats of QRIS technology services for MSMEs [6].
   2. The combination of SWOT and IPA can provide insights and recommendations to enhance the performance of QRIS technology services and address adoption challenges [6].
   3. Previous studies have shown the effectiveness of applying SWOT and IPA models to fintech services, indicating their adaptability to QRIS technology services for MSMEs [7].

6. **Research Objectives and Significance:**
   1. The research aims to adapt the SWOT and IPA methodology to QRIS technology services for MSMEs, providing valuable insights and recommendations for both MSMEs and supporting entities [
   2. The anticipated outcomes include improved understanding and support for the adoption of QRIS technology by MSMEs, contributing to their growth and success.

Metode

- This research is a quantitative study that applies the Importance Performance Analysis (IPA) method and SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis. The data used are primary data obtained through the completion of questionnaires by 100 randomly selected respondents from MSMEs utilizing QRIS technology services. 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.

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- **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 1.
**Results of the analysis using the IPA method.**
Source: Processed data (2023)

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

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Figure 1.

depicts the Cartesian quadrant resulting from the research study

IMPORTANCE PERFORMANCE ANALYSIS
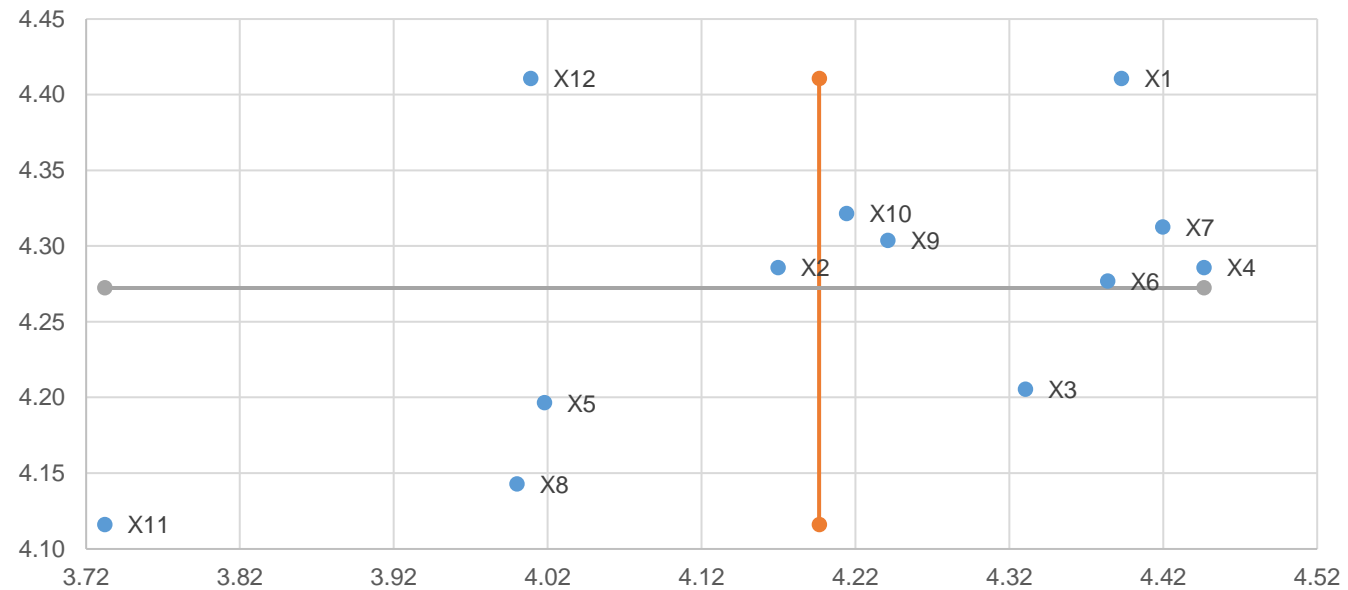
Pembahasan (ANALISIS IPA)

- 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.

Pembahasan (ANALISIS SWOT)

No	Analysis	Description	Evaluation
1	Strengths	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)	1. Prioritize the development and enhancement of data security aspects and QRIS control capabilities. Focus on innovation and technological updates to maintain this competitive advantage. 2. Continuously uphold and optimize the quality of these aspects. Conduct training and education for MSMEs to ensure maximum understanding and utilization.
2	Weaknesses	1. Low Priority QRIS Variables (X5, X8, X11) 2. QRIS Variables Potentially Excessive (X3)	1. 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.
	Opportunities	1. 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)	1. Seize this momentum to develop innovative solutions that enhance data security and the control capabilities of QRIS. 2. Leverage the already good quality to support the promotion and marketing of QRIS services to other MSMEs. Enhance integration and compatibility with other systems.
3	Threats	1. 1. Threats from Low-Priority Variables (X5, X8, X11) 2. Threats Arising from Potentially Excessive Variables (X3)	1. 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.

UMSIDA
DARI SINI PENCERAHAN BERSEMI

KESIMPULAN

Based on the SWOT analysis of QRIS technology services for SMEs, the conclusion is that there is a need for improvement and enhancement in the aspects of data and financial security (X12), as well as the ability to control QRIS (X2) as the top priority. Meanwhile, efforts should be maintained in aspects that are already satisfactory (X1, X4, X6, X7, X9) to leverage the positive momentum. Variables considered low priority (X5, X8, X11) and possibly too flexible (X3) require a strategic review to determine the appropriate improvement measures. Opportunities can be seized through the improvement of security and control in QRIS, while threats arise from the potential decline in performance due to neglecting aspects considered low priority. Therefore, strategic planning and wise resource allocation are necessary to enhance the competitiveness of QRIS technology services for SMEs.

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