The Effectiveness of QRIS Transaction Implementation During the COVID-19 Pandemic

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Abstract

The Covid-19 pandemic has hit the entire world, including Indonesia, causing severe impacts on the social and economic sectors. Electronic or non-cash money payment systems have progressed along with the development of information technology, in line with the increase in users and service providers of electronic money payment systems. This study aims to analyze the effectiveness of QRIS transaction implementation during the Covid-19 pandemic. Qualitative research is used to bring researchers closer to the phenomenon studied, especially in the context of using QRIS by micro, small and medium enterprises (MSMEs) engaged in food sales. Based on the results of the analysis that has been conducted, the impact of implementing QRIS during the Covid-19 pandemic is as follows: 1) At first, many merchants and the general public did not fully understand the features and benefits of the QRIS program. Hence, the installation of QRIS-based payment gateways for merchant transactions still experienced obstacles. The use of QRIS has not become common because many individuals still do not have an application to carry out these transactions, and sometimes problems related to QR code inaccuracies also become obstacles. 2) Some MSME merchants agree to use QRIS as a payment method because it is more economical and helps reduce the risk of spreading Covid-19. 3) One of the main advantages of using QRIS is the very low transaction fee, only one rupiah. The use of QRIS also provides convenience because it does not require large amounts of cash, and transactions can be completed quickly and safely without the need to carry cash. In addition, no physical interaction is required, which helps reduce the risk of spreading Covid-19. However, there are several disadvantages to using QRIS, including a limit on the number of transactions of up to 2 million rupiah and problems with an unstable internet connection that can limit the use of this system. This shortage may be unavoidable because using QRIS requires internet access and quota for transactions, and there can also be inventory problems in stores.

Keywords: *Pandemic, Covid-19. QRIS, UMKM, Transactions.*

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A. INTRODUCTION

The COVID-19 pandemic has reached the entire world, including Indonesia, and its impact has resulted in losses both socially and economically. Despite various efforts made by world leaders to control the spread of this new coronavirus, this pandemic continues to be a difficult problem to overcome (1). This crisis brings risks and uncertainties that are difficult to predict regarding the ongoing economic and operational system (2). Digital transformation has become an important tool in maintaining a balance between implementing social and economic restrictions during the COVID-19 pandemic (3). Today, many companies invest in the efficient use of technology to achieve competitive advantage and attract customers. Technology has a significant impact on the way humans interact, especially in lockdown situations (4).

The impact of the COVID-19 pandemic has disrupted the industry's production chain, posing challenges for businesses in running their operations and fulfilling their obligations. As a result, many workers were forced to lose their jobs due to layoffs. The rupiah exchange rate continued to decline, and the stock market experienced significant volatility with a steep decline in the Jakarta Composite Index (JCI) (5). This situation has further increased uncertainty regarding Indonesia's economic future. The government has taken steps to control the spread of the COVID-19 virus, including implementing restrictions gradually in the form of Community Activity Restrictions (PPKM) in several regions. PPKM has had a major impact on people's lives, which then encourages an increase in the use of e-commerce to meet various needs, while reducing the use of cash or paper transactions, which are also recommended by the government (6). It includes a variety of supermarkets and grocery stores that offer digital services. In addition, Bank Indonesia has suspended cash services in an effort to mobilize the public to switch to non-cash transactions (7).

Electronic or non-cash money-based payment systems are growing rapidly along with ongoing advances in information technology. This is in line with the growth in the use and service providers of increasingly sophisticated electronic money payment systems (8). The use of this payment method also has benefits in reducing the potential transmission of the COVID-19 virus through physical contact. With the significant increase in the use of electronic money, people are looking for solutions to meet the social restrictions imposed by the government. Therefore, the electronic money payment system is considered an adequate alternative for people who have to move with limited mobility. In Indonesia, there are several well-known digital payment platforms, such as DANA, OVO, LinkAja, and GoPay. People can make payments easily through this digital payment application by scanning the QR code provided by the merchant. In Indonesia, this fast payment system is known as QRIS (Quick Response Indonesian Standard), which provides a simpler and more efficient cashless payment option (9).

The QRIS system not only provides fast and accurate payments, but also helps strengthen digital transformation in companies. Digital transformation is the process of deliberately and prioritizing the adoption of new technologies to transform and utilize various aspects within companies and organizations in order to achieve the changes and opportunities offered by technology (10). To stay competitive in the highly competitive modern era, businesses need to leverage digital technology to improve collaboration across business processes (11). Based on data from Bank Indonesia, there has been a significant increase of 66.65% in the value of electronic money transactions until January 2022, indicating great public interest in using electronic money. Over the past two years, the use of e-money has seen a striking growth, supported by the availability of diverse applications. QRIS is one of the popular choices for cashless payments. QRIS is a QR code specification for digital payments that can be made through server-based applications, mobiles, or e-wallets. The use of QRIS is regulated in accordance with Bank Indonesia Board of Governors Regulation (PADG) No. 21/18/2019 concerning the Implementation of International

Standard QRIS for Payments. With this background, the study aims to analyze the effectiveness of QRIS transaction implementation during the Covid-19 pandemic.

B. METHODS

This research is part of research that uses a qualitative descriptive approach. Qualitative research methodology aims to enable researchers to get closer to the phenomenon they are researching through interactions involved in situations that can be understood by everyone (12). This research specifically focuses on the impact caused by the widespread use of QRIS among Micro, Small and Medium Enterprises (MSMEs) and the extent of QRIS effectiveness in the transaction process. This research uses a qualitative approach with a descriptive method.

In this study, the research subject will be selected based on the context relevant to the research objective. The research will involve interview analysis and document analysis, which will be used as a complement to conduct research by utilizing Bank Indonesia regulations related to the Payment System. During conducting a systematic review, broad or specific research questions will be developed, and data related to systematic review questions will be discovered and synthesized. Data will also be collected through a literature review of previous studies. Deductive reasoning will be used to conclude research results from general to specific.

C. RESULTS AND DISCUSSION

QRIS (Quick Response Code Indonesian Standard) is a standardized payment system using the latest QR Code technology introduced by Bank Indonesia to facilitate transactions with QR codes faster and safer (13). In the context of QRIS, all Payment System Service Providers must adopt the existing QRIS and use QR Code as a payment method. In addition, the QR Code payment system can be used in various places such as shops, stalls, parking lots, tourist ticket locations, and donation points (merchants) (10). QRIS has supported payment systems from banks and non-bank operators used by the public. Traditional markets can also utilize QRIS as a means of payment. They can join Bank Indonesia as part of an initiative to build a QR Code payment system specifically for Micro, Small and Medium Enterprises (MSMEs) (14).

Through observation, recording, and interview methods with micro, small and medium enterprises (MSMEs), the study aimed to examine the efforts made by MSMEs in adopting QRIS software. By using the right QRIS software, the author will guide traders regarding its features and benefits (15).

According to bank employees interviewed, QRIS or Quick Response Code is an approach Bank Indonesia uses to standardize payment methods by Indonesian Standards. Using QR Codes makes the payment process simpler, faster, and safer. During the pandemic, accelerating transaction procedures has become essential to avoid long checkout queues and reduce the potential for disease transmission through money (16). QRIS aims to speed up the transaction process, reduce waiting time at the checkout, and reduce the potential for disease spread through cash. Transaction efficiency increases, so the queue at the cashier becomes shorter. QRIS is accepted by

all digital wallet applications for various payment options, with a maximum transaction limit of IDR 2,000,000. Payments by app providers may be limited by daily and monthly totals, depending on how they assess the risk posed by users (16).

The Customer Care Bank interview revealed that digital payments, especially those using QRIS, have faster execution than cash payments. In addition, they claim that electronic payments are more hygienic. The QRIS program uses Indonesian standards in quick response QR codes to facilitate the transaction process between merchants and consumers. Based on information from the customer care branch of the Bank Indonesia One system, implementing Micro, Small and Medium Enterprises (MSMEs) is more likely to be carried out through direct transactions than using the QRIS application.

"I personally rarely use applications that are already installed in my business and prefer cash payments so that the money can be used to replace items that have run out," said one MSME seller who sells meatballs. After knowing the results of interviews with MSME sellers in the food sector, several other MSMEs also expressed similar views. One said, "I rarely use the app at my stall because customers also don't often use it to fill out QR code payment forms. So, I accept payments with cash more often than through apps." During interviews with five other MSMEs, they explained that they are more supportive of using QRIS as a payment method because it is considered more economical and helps reduce the potential spread of COVID-19. This is an effort to standardize the use of QRIS in payments as support for MSMEs.



Figure 1. Standardization of QRIS Use

Based on the illustration above, QRIS can be used by various payment businesses, including small, medium, large, and micro businesses. QRIS has the advantage of being able to be used by various types of payment businesses, including small, medium, large, and micro businesses. QRIS is very relevant in Merchant Presented Mode (MPM). With this picture, QRIS can be used by various types of businesses, ranging from small, medium to large, and micropayment businesses. To

unify the use of QR Codes for financial transactions across the archipelago, Bank Indonesia introduced QRIS through Customer Presentation Mode (CPM). All MSMEs are expected to implement this latest QRIS mode and use QR codes as a payment method. Although there are variations in fashion, people can quickly provide QRIS to retailers and application providers. The public of various payment methods from banks and organizers other than banks uses all payment programs.

Additionally, the QR Code payment system can be applied in places such as shops, stalls, parking lots, tourist ticket counters, and donation points if they display the QRIS symbol. Bank Indonesia also encourages using traditional QR Code payment systems in all MSME sectors. Traders in the market can also benefit by utilizing QRIS, especially for Micro, Small and Medium Enterprises (MSMEs). MSMEs can take advantage of the ability of QR Codes to accept payments in cash, and this technology can even help facilitate the use of payments during the COVID-19 pandemic. In conventional markets, payments with paper money are common and frequent. Undoubtedly, using QR codes and their application in this context can help reduce the potential spread of COVID-19. In addition, MSMEs can benefit from the QRIS registration process. Most MSMEs will transact in banks with people they know or who are close to their business location or market.

The researchers conducted the study by interviewing traditional market business owners to gain an understanding of their experience in using QR Codes. The questions focused on the positive impact of using QRIS and how effectively the technology was adopted. However, responses from respondents indicate that QR Code payments are still less common than cash payments. The demographic most likely to adopt this technology is young adults, specifically those between the ages of 18 to 40. When customers use QR Codes for payments, MSMEs don't have to worry about returning money to customers or making direct contact with them. This makes business transactions faster, more straightforward, and more secure. From the results of the analysis obtained, it can be seen that there are advantages and disadvantages to using QRIS. One of the advantages that stands out is the low initial transaction fee, just one rupiah.

QRIS provides convenience because it does not require a lot of cash but still allows reimbursement based on the minimum amount spent. Transactions can also be done quickly and securely, without carrying large amounts of cash. Further, physical interaction is not required, which helps reduce the potential spread of COVID-19 (17). Although there are various advantages, there are also some disadvantages to using QRIS. One of them is the limit on the number of transactions, which is 2 million rupiah. This limitation is related to internet connection stability, which may affect QRIS usage. An unstable internet connection may hinder the use of this system. Related to the nominal transaction limit, business entities also have special requirements and other documents that must be met using QRIS. Bank Indonesia recently made its first update by the Board of Governors Regulation Number 24/7/PADG/2022, which sets a maximum transaction limit of Rp. 2,000,000 (unregistered) and 20,000,000 (registered).

Implementing QRIS-based payment gateway transactions for Micro, Small and Medium Enterprises (MSMEs) is one of the implications of this study (18). The results of this study are expected to provide better guidance to Bank Indonesia and MSMEs in considering the management and introduction of QRIS-based payment gateway transactions more effectively (19). Bank Indonesia and MSMEs are expected to overcome obstacles that may arise to integrate the public into using QRIS-based payment gateway transactions. In addition, public participation is also expected to increase if branches and MSMEs succeed in implementing QRIS-based payment gateway transactions so that people can be more actively involved in a more modern and efficient payment system.

D. CONCLUSION

Initially, many merchants and the general public did not fully understand the features and advantages of the QRIS program. Hence, installing QRIS-based payment gateways for merchant transactions still experienced obstacles. Transactions using QRIS have not yet become common because there are still individuals who do not have an application to make these transactions, and sometimes, the problem of inaccurate barcodes is also an obstacle. MSME merchants generally agree to use QRIS as a payment method because it is considered more economical and helps reduce the risk of spreading COVID-19. In its use, QRIS has advantages and disadvantages. One of the main advantages is that the initial transaction fee is meager, only one rupiah. QRIS is also convenient because it does not require large amounts of cash, and transactions can be done quickly and safely without carrying cash. In addition, no physical interaction is required to reduce the risk of spreading COVID-19. However, there are also some disadvantages, such as a limit on the number of transactions up to 2 million rupiah (unregistered) and problems with unstable internet connections that can limit the use of this system. This weakness may be unavoidable because using QRIS requires internet access and quota for transactions.

REFERENCES

1. Fatoni, S. N., Susilawati, C., Yulianti, L., & Iskandar, I. (2020). Dampak Covid-19 terhadap perilaku konsumen dalam penggunaan e-wallet di Indonesia.
2. Handayani, N. L. P., & Soeparan, P. F. (2022). Peran Sistem Pembayaran Digital Dalam Revitalisasi UMKM. *Transformasi: Journal of Economics and Business Management*, *1*(3), 20-32.
3. Handiasti, L., & Rohim, A. (2023, April). The Effectiveness of Using QRIS in Collecting ZIS Funds During the Covid-19 Pandemic. In *Proceedings of the 3rd International Conference of Islamic Finance and Business, ICIFEB 2022, 19-20 July 2022, Jakarta, Indonesia*.
4. Listiawati, R., Vidyasari, R., & Novitasari, N. (2022, June). QRIS Efficiency in Improving Digital Payment Transaction Services for Culinary Micro-Small and Medium Enterprises in Depok City. In *Operations Research: International Conference*

Series (Vol. 3, No. 2, pp. 67-73).
5. Mahyuni, L. P., & Setiawan, I. W. A. (2021, October). Bagaimana QRIS menarik minat UMKM? Sebuah model untuk memahani intensi UMKM menggunakan QRIS. In *Forum Ekonomi* (Vol. 23, No. 4, pp. 735-747).
6. Mardiyono, A., Suhandana, A. A., Vidyasari, R., Adhi, P. M., Zain, A. R., & Marcheta, N. (2021, May). Pengembangan sistem e-infak terintegrasi QRIS sebagai solusi sosial pandemi COVID-19 dengan metode SDLC. In *Seminar Nasional Teknik Elektro* (Vol. 6, No. 1, pp. 29-34).
7. Mardiyono, A., Suhandana, A. A., & Vidyasari, R. (2021). Integrasi QRIS pada Aplikasi Donasi Elektronik Berbasis Web di Masa Pandemi Covid-19. *Jurnal Teknologi Informatika Dan Komputer*, *7*(1), 146-155.
8. Nada, D. Q., Suryaningsum, S., & Negara, H. K. S. (2021, December). Digitalization of the quick response Indonesian standard (QRIS) payment system for MSME development. In *Journal of International Conference Proceedings (JICP)* (Vol. 4, No. 3, pp. 551-558).
9. Permatasari, R., Amboro, F. Y. P., & Nurlaily, N. (2022). Efektivitas Penerapan Transaksi QRIS Era Covid-19 di Pasar Tradisional Kota Batam Menurut Perspektif Hukum Progresif. *AL-MANHAJ: Jurnal Hukum dan Pranata Sosial Islam*, *4*(2), 265-278.
10. Putra, I. T. P., & Heruwasto, I. (2022, July). Factors affecting consumer intention to use QRIS during the Covid-19 pandemic by using C-TAM-TPB. In *Proceeding of the International Conference on Family Business and Entrepreneurship* (Vol. 3, No. 1).
11. Rahman, A. F. S. K., & Supriyanto, S. (2022). Analisis Faktor Yang Mempengaruhi Minat Penggunaan Qris Sebagai Metode Pembayaran Pada Masa Pandemi. *Indonesian Scientific Journal of Islamic Finance*, *1*(1), 1-21.
12. Saibil, D. I., Sodik, F., & Mardiah, A. A. (2022). FAKTOR MEMPENGARUHI NIAT MENGGUNAKAN QRIS PADA SHARIA MOBILE BANKING SAAT PANDEMI COVID-19 (MODIFIKASI MODEL UTAUT 2): FACTORS AFFECTING THE INTENTION OF USING QRIS IN SHARIA MOBILE BANKING DURING COVID-19 PANDEMIC (MODEL MODIFICATION OF UTAUT 2). *NISBAH: Jurnal Perbankan Syariah*, *8*(2), 75-92.
13. Sari, A. C., & Adinugraha, H. H. (2022). Implementation of QRIS-Based Payments Towards the Digitalization of Indonesian MSMEs. *EKONOMIKA SYARIAH: Journal of Economic Studies*, *5*(2), 124-139.
14. Sekarsari, K. A. D., Sulistyaningrum, C. D., & Subarno, A. (2021). Optimalisasi penerapan quick response code indonesia standard (qris) pada merchant di wilayah surakarta. *JIKAP (Jurnal Informasi Dan Komunikasi Administrasi Perkantoran)*, *5*(2), 42-57.
15. Setiawan, I. W. A., & Mahyuni, L. P. (2020). QRIS di mata UMKM: eksplorasi persepsi dan intensi UMKM menggunakan QRIS. *E-Jurnal Ekonomi Dan Bisnis Universitas Udayana*, *10*(9), 921-946.
16. Silaen, M. F., Manurung, S., & Nainggolan, C. D. (2021). Effect analysis of benefit

perception, ease perception, security and risk perception of merchant interest in using quick response indonesia standard (qris). *International Journal of Science, Technology & Management*, *2*(5), 1574-1581.

17. Sugiyono. (2016). Metode Penelitian *Kuantitatif, Kualitatif dan R&D Research Methods*. Bandung: Alfabeta.
18. Wahyudin, N., Herlissha, N., & Aldiesi, D. R. (2022). The Utilization of E-Commerce and QRIS as Digital Payment Tools to Improve Sales Performance through Competitive Advantage in MSME. *Journal of Consumer Sciences*, *7*(2), 134-147.
19. Yuliati, T., & Handayani, T. (2021). Pendampingan Penggunaan Aplikasi Digital QRIS Sebagai Alat Pembayaran Pada UMKM. *Communnity Development Journal*, *2*(3), 811-816.