

---

# EFFECTIVENESS OF IMPLEMENTING QRIS TRANSACTION IN PANDEMIC COVID-19

**Hartono Subagio**

Faculty of Business Economics at Ciputra University, Indonesia

\*e-mail: [hartonosubagio@gmail.com](mailto:hartonosubagio@gmail.com)

\*Correspondence: [hartonosubagio@gmail.com](mailto:hartonosubagio@gmail.com)

**Abstract:** The purpose of this study is to study how widely QRIS is used among micro, small and medium enterprises (MSMEs) and how effective QRIS is in transaction processing. Reviewing the experiences of buyers and owners of micro, small and medium enterprises (MSMEs) having used QRIS has outlined the best way to use the system. This study uses a qualitative descriptive methodology. The goal of qualitative research is to bring researchers and the phenomena they study closer together in an interactive process that increases everyone's knowledge. While describing a phenomenon and its characteristics is the main goal of descriptive research. Observations, interviews, and documentation will be used to collect data, which will then be analyzed to provide solutions to the problems formulated and draw conclusions. The research findings show that first, many merchants and the general public do not understand the features and advantages of the program, the installation of a QRIS-based payment gateway for merchant transactions is still not going well. Second, the community and MSME actors are starting to switch to using QRIS because it can minimize the spread of Covid-19. Third, QRIS shows effectiveness in the transaction process during the Covid-19 pandemic which was very effective, besides that there are 2 types of transaction mechanisms using QRIS, the first is Merchant-Presented (push payment) and Customer-Presented (pull payment).

**Keywords:** Covid-19; QRIS; MSMEs.

---

## INTRODUCTION

In ancient times, people exchanged a kilogram of rice for a liter of cow's milk. After that, over time, Indonesia released rupiah currency on October 20, 1946, and it has since been used in monetary exchange (Wardhono et al., 2019). Gold and silver coins, as well as banknotes produced to match face value, are also acceptable forms of currency. However, in this era of revolution 4.0, with its technical innovations that continue to advance, it certainly makes it more modern and up-to-date by creating reliable infrastructure. Electronic currencies are introduced in Indonesia today, many people are already using electronic money for transactions. The result is many recent breakthroughs in financial innovation (Harahap et al., 2022). Nowadays, electronic money is more popular than the mechanism of cash payments using currency. The potential of *mobile platforms* to serve as a distribution channel for digital financial services is promising, especially given the role of money in bringing people together. Companies are increasingly relying on electronic payment systems, which facilitate financial transactions over the internet, to reassure their clients that their online transactions are secure (Prasetio et al., 2021).

Electronic money systems, which previously could only make transfers via debit/credit cards (EDC system), online banking, and mobile banking, have also experienced an increase in innovation. It is now growing thanks to various *mobile platform* providers not only banks but also GoPay, OVO, Dana, and Shopee. The cashless transaction system has been widely used by businesses of all sizes due

to the benefits of time and security it provides (Munsarif et al., 2022). Where the risk of doing business with cash is much higher, such as when carrying cash with a large enough nominal or when meeting with someone to pick up or deliver cash (Elyta & Mutia, 2020).

Using barcode scan technology (QR Code) or known as QRIS, Bank Indonesia again launched an innovative invention in Jakarta in mid-August 2019. The implementation of QRIS throughout Indonesia will run smoothly starting in early 2020 (Srikaningsih, 2020). Scan the barcode code and enter the purchase price in Indonesian Rupiah for instant approval of consumer payments (Alfianti, 2020). Because one QR code can be scanned by all operators that offer QRIS services for free and is included in the mobile M-Banking application to scan the barcode code. When conducting financial transactions, both buyers and sellers (*merchants*) benefit from the use of QRIS (Hardiky et al., 2021).

The cashless transaction approach introduced by Bank Indonesia, known as QRIS, helps Indonesia and other countries overcome the Covid-19 outbreak, which can be spread through physical contact with infected individuals (Srikaningsih, 2020). This is possible if in handling goods that have come into contact with a person who is positive for Covid-19. Covid-19 can spread to people who have never been exposed to the virus if an infected person touches an infected person, an infected animal, or an infected object. By maintaining a distance of 1 (one) meter and not crowding, wearing masks and minimizing direct contact with people

---

around, not crowding, and still following the health rules set by the Government. The number of people infected with Covid-19 can be reduced and kept to a minimum (Yunida, 2021).

Seeking non-cash payments by taking into account the disinfection of payment machines, in accordance with the Decree of the Minister of Health of the Republic of Indonesia Number HK.01.07 / MENKES / 382/2020 concerning Public Health Protocols in Public Places and Facilities in the Context of Prevention and Control of Corona Virus Disease (COVID-19) (Miharja et al., 2020). Hand Sanitizers must be used after holding money in accordance with "health protocols for the public in public places and facilities in the context of preventing and controlling coronavirus disease (COVID-19) 2020 set by the Minister of Health of the Republic of Indonesia.

Payments made through non-cash methods, such as *wire transfers* or *Quick Response Identification System* (QRIS) barcodes, can help reduce the spread of the Covid-19 Pandemic because it does not require physical currency exchange. as an effort to stop the spread of COVID-19 (Srikaningsih, 2020) . In implementing QRIS transactions in Indonesia, Bank Indonesia and other banks are not only targeting modern retail such as shopping centers, restaurants, cafes, food courts, and bookstores, but also more established businesses such as micro, small and medium enterprises (MSMEs) and traditional markets. Payments made through non-cash transactions such as transfers and utilizing QRIS barcodes to minimize direct hand contact to limit the

spread of covid-19 are increasing. Bank Indonesia and other financial institutions are working to implement QRIS transactions in various places, including micro, small and medium enterprises (MSMEs) (Natalina et al., 2021).

In addition, many micro, small and medium enterprises (MSMEs) have emerged as a result of the rapid development of financial technology. The non-cash payment system (*Payment Gateway*) has been widely implemented by MSMEs in Indonesia which is used in the form of QR codes (QRIS) (Setiawan & Mahyuni, 2020). A total of 45 million Micro, Small and Medium Enterprises (MSMEs) are expected to use the *Quick Response Identification System* (QRIS) in 2023, this is the target of Bank Indonesia (BI) Governor Perry Warjiyo (Atmaja & Paulus, 2022). However, the system has not worked properly due to lack of understanding from consumers and producers (Buyers and Sellers). The study of micro, small, and medium enterprises (MSMEs) was carried out because it was proven that the QRIS system had been implemented by micro, small, and medium enterprises (MSMEs), as indicated by the QR code installed at each merchant to be used in conducting non-cash transactions. Given this context, researchers are interested in analyzing the effect of implementing QRIS-based gateways to process payment transactions for micro, small, and medium enterprises so this study is entitled "Effectiveness of Implementation of QRIS Transaction in Pandemic Covid-19".

The main objective of this study is to study how widespread the use of QRIS is among micro, small and medium

---

---

enterprises (MSMEs) and how effective QRIS is in the transaction process. Reviewing the experience of buyers and owners of micro, small and medium enterprises (MSMEs) who have used QRIS has explained the best way to use the system.

### Theoretical Studies

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

To facilitate QR code payments in Indonesia, Bank Indonesia and the Indonesian Payment System Association (ASPI) introduced QRIS on August 17, 2019 (Surya et al., 2021). Use QRIS to facilitate all digital wallet transactions of QRIS providers at *merchants* can be different from other providers. Currently, all payment applications from any operator, both banks and non-banks used by the public, are accepted in all stores, merchants, stalls, parking, tourist tickets, contributions (merchants) showing the QRIS sign has a positive role.

Payment System Services can perform QRIS scans. *Quick Response Identification System* (QRIS) is a type of electronic payment that can be read by a QR Code scanner provided by a Payment System Service Provider (Natalina et al., 2021). Some PJSPs (Payment System Service Providers) have obtained QRIS permission to accept payments using a QRIS QR Code. The smallest amount received ranges from Rp 1 to Rp 1,000,000.

QRIS, short for "*Quick Response Identification System*", is a QR code-based digital payment system. The purpose of QRIS is to standardize the way Bank Indonesia processes electronic payments

made through e-wallets, mobile banking, and other digital financial services.

QRIS can be used for the following three payment methods:

**First, *Merchant Presented Mode*** (MPM) Static.

Probably the most common payment type you'll come across. To do business with vendors, customers only need to look for a QRIS sticker and scan the corresponding QR code. Like the exchange method we saw earlier. This payment method works well for mom-and-pop stores.

**Second, *Dynamic Merchant Presented Mode*** (MPM).

The phase in this continuous payment model is much longer than the phase in the static model. In this case, the vendor puts the entire amount owed into an electronic data capture equipment (EDC) or smartphone before printing the QR code. Then the buyer can complete the transaction by scanning the QR code. This payment method is often used by organizations with a size and level of activity comparable to that described above.

**Third, *Customer Presented Mode*** (CPM)

This method of payment differs from the norm in several small respects. In this case, it is the customer who has to provide their QR code for the store owner to scan (Setiawan & Mahyuni, 2020).

#### Corona Virus Disease (COVID-19)

The beginning of the COVID-19 pandemic in humans dates back to late December 2019 and originated from a swarm of pneumonia cases in Wuhan City, China. The incident first appeared on December 1, 2019 (Isdairi et al., 2021).

---

Patients with viral pneumonia infections often come with fever, lethargy, dry cough, and shortness of breath. Because of its resemblance to pneumonia, the condition was first dubbed Wuhan pneumonia by the media. Evidence from genome sequencing places the etiological agent unequivocally in the category of the novel coronavirus. On January 12, 2020, the World Health Organization (WHO) officially renamed the new virus coronavirus disease 2019 (COVID-19), previously known as 2019 novel coronavirus (2019-nCoV) (Isbaniah & Susanto, 2020). The SARS-CoV-2 virus, which causes the COVID-19 disease, is still a coronavirus, and is therefore closely related to the coronavirus that causes acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) (MERS). The victims of these three pandemics are infected to varying degrees. COVID-19 is the fastest transmitted of the three viruses between people.

Most cases of the disease caused by the human coronavirus are short-lived and confined to the nose and throat. However, SARS-CoV and MERS-CoV, two animal-borne coronaviruses, have caused serious illness and death in humans over the past two decades (Fitriyani et al., 2021). Data from coronavirus.jhu.edu shows that the COVID-19 pandemic began in late 2019 and has killed at least 772,296 people worldwide as of August 18, 2020. Since antiviral therapies and vaccines for SARS-CoV-2 are still at the research and development stage, quarantine and social isolation are recommended as a means of preventing the transmission of the virus. However, the genetic nature of the virus should be carefully considered in studies of

viral pathogenicity, treatment, and vaccination prophylaxis as the virus continues to mutate and change during the pandemic.

Covid-19 can be prevented by carrying out activities, namely staying at home, avoiding public places and activities, washing hands frequently with soap and water, and not touching eyes, nose, or mouth with unwashed hands are effective ways to reduce the risk of contracting COVID-19. Use proper etiquette when coughing or sneezing (by covering the mouth and nose). When unwell, cover your face with a mask and go to the emergency room immediately. Using soap to clean hands as well as consume healthy food and regular exercise. In addition, to prevent the transmission of Covid-19 at the time of the transaction, you can take advantage of the *Quick Response Identification System* (QRIS).

## **MATERIALS AND METHODS**

This research uses a qualitative descriptive methodology. The purpose of qualitative research is to bring researchers closer and the phenomena they learn in an interactive process that increases everyone's knowledge (Yusanto, 2020). While describing a phenomenon and its characteristics is the main purpose of descriptive research (Ismayani, 2019). Considering that this study emphasizes the impact of how widespread the use of QRIS is among micro, small, and medium enterprises (MSMEs) and how effective QRIS is in the transaction process, qualitative techniques are used with descriptive methods. In this investigation, the researcher will select the subject based

---

on the context in which the researcher places his own ideas. The next step is to determine the formulation of the problem; In this case, the problem faced is the implementation and effectiveness of QRIS on a transaction. The objectives of the study will follow from the definition of the problem. Theory is needed to support this research and help address problem statements. Researchers first looked at fintech applications to collect information about micro, small and medium enterprises (MSMEs) adopting these services.

Researchers used interview analysis, documentation analysis (complementary to conducting research by utilizing Bank Indonesia laws relating to the Payment System), and observations to compile their findings. Each of these steps from defining the problem to narrowing the scope of the research to ensure that the data collected is useful consists of research implementation methods (Hadi, 2021). After compiling

research tools, research participants, and data collection methodologies, researchers take to the field to collect data. Next comes the data analysis, and finally, we report the findings. The researcher uses an interactive data analysis approach in which analyzes the responses he receives during the interview to hone in on the most convincing answers. Data collection, data reduction, data viewing, and inference are all part of the process.

Furthermore, researchers observed MSMEs in action to verify that they did use QRIS. Then the author interviewed MSMEs to gain insight into specific problems, in addition to photos taken at the time of the interview. Research findings are obtained after data collection through analysis of the data to be presented. Upon completion of the data analysis and presentation of the findings of the resulting study, the authors draw the necessary conclusions and make the recommended adjustments.

## RESULTS AND DISCUSSION

### QRIS (Quick Response Code Indonesian Standard)

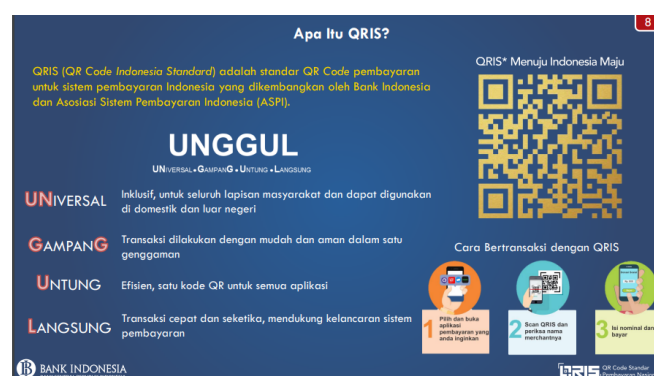


Figure 1. QRIS Definition

Source: <https://www.bi.go.id/id/edukasi/Documents/Bahan-Sosialisasi-QRIS.pdf>

At the time of QRIS socialization conducted by Bank Indonesia, it defined "QRIS (QR Code Indonesia Standard) is a

payment QR code standard for the Indonesian payment system developed by Bank Indonesia and the Indonesian

Payment System Association (ASPI)". In this study, Bank Indonesia and merchants interviewed for this study reported the success of QRIS-based payment gateway transactions. All information was collected through interviews, notes, and observations with micro, small and medium enterprises (MSMEs) operating to discuss the introduction of QRIS-based payment gateway transactions. The author will guide merchants through the features and advantages of QRIS software so that micro, small, and medium enterprises (MSMEs) can implement it properly. Based on interviews with bank staff, it was obtained that "QRIS or Quick Response Code Indonesian Standard is a standardization of payments using the QR Code method from Bank Indonesia so that the transaction process with a QR Code becomes easier, faster, and maintained security." The goal is to streamline the transaction process so that there are no long lines at the cashier and the spread of disease through money during the pandemic. The QRIS app improves transaction efficiency and effectiveness, which reduces waiting times in queues. All e-wallets from various payment methods accept QRIS, with a payment limit of IDR 2,000,000 per transaction. Depending on how they assess the risk of their users, payment application providers may place daily and/or monthly cumulative nominal limits on the number of QRIS transactions that a single user can complete.

The results of the interview through a message to the customer service desk of

the main branch of Bank Indonesia: "Digital payments, especially with QRIS, are certainly a faster approach than cash payments. It is not limited by having to wait for change from the cashier or something else. He also said that digital payments are cleaner. According to information provided by customer care of Bank Indonesia branches, the QRIS (*Quick Response Code Indonesian Standard*) application facilitates the purchase and sales procedures of both merchants and consumers using a single system". The implementation of the application for use by micro, small and medium enterprises (MSMEs) prefers direct transactions instead of using the QRIS application. The word UMKM A is, "I myself very rarely use applications that have been installed in my business and prefer cash payments so that later the money can be used to buy goods that are starting to run low". Hearing the results of interviews with MSMEs B, other MSMEs expressed similar things, such as, "I rarely use applications in my stalls because buyers also rarely have payment applications in the form of QR codes, so in payments I get more cash than making transactions in the application". However, in the midst of this pandemic, other MSMEs chimed in more agreeing to use QRIS for payment methods because this is more efficient and can minimize the spread of Covid-19. As stated by UMKM C, D, E, F, G, H, I, J who agreed to use QRIS in business transactions carried out. The following is a standardization of the use of QRIS for payments to support MSMEs and *financial inclusion*.

---

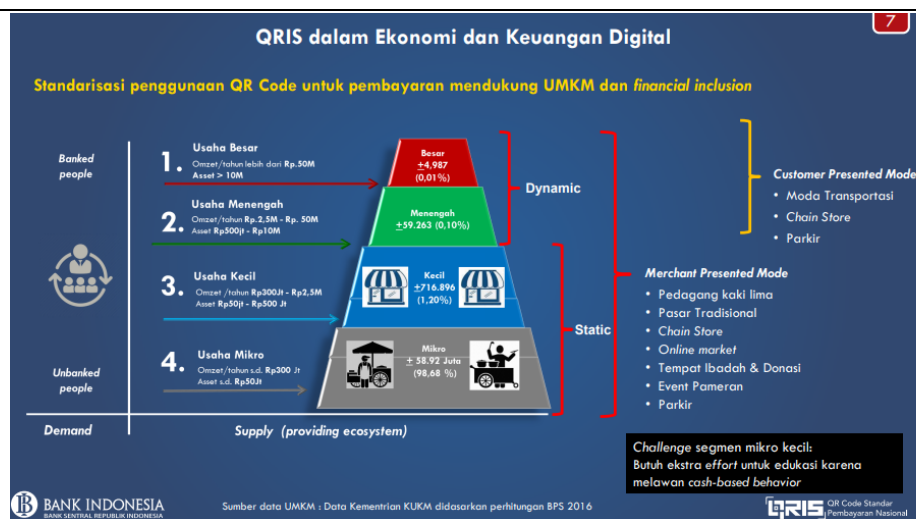


Figure 2. standardization of QRIS usage

Source: <https://www.bi.go.id/id/edukasi/Documents/Bahan-Sosialisasi-QRIS.pdf>

Based on the picture above, QRIS can be used for payments for micro enterprises, small businesses, medium enterprises and large businesses. which is distinguished in Static *Merchant Presented Mode* (MPM), Dynamic *Merchant Presented Mode* (MPM) and *Customer Presented Mode* (CPM). Bank Indonesia has introduced QRIS (*Quick Response Code Indonesian Standard*) in an effort to standardize the use of QR Codes for financial transactions throughout the country. Regarding QRIS, all MSMEs are expected to adopt the latest QRIS and use QR Code as a payment method. Although there are variations in the provision of QRIS at merchants and application providers used by the public, all payment applications already support payment systems from Banks and Non-Bank Operators. In addition, the QR Code payment system can not only be used in malls but also in all stores, stalls, parking lots, tourist tickets, donations (merchants) which of course have the QRIS logo. Bank Indonesia intends to roll out a QR Code payment system in all MSME sectors, which means that traditional market traders can take advantage of QRIS

(Micro, Small and Medium Enterprises).

The ability to accept cashless payments via QR Code is a huge advantage for micro, small and medium enterprises (MSMEs), and this technology can even help facilitate the use of such payments in the Covid-19 era. The use of banknotes as a payment mechanism for obtaining products is common and real in traditional markets. QR Codes and their implementation in this arrangement can undoubtedly contribute to the decline of Covid-19. In addition, the QRIS registration process may be easy for MSMEs. Most micro, small and medium enterprises (MSMEs) will visit banks both those they are familiar with and those located close to their traditional business or markets. Existing Mandiri, BCA, or BNI account holders can register for QRIS by contacting customer service or the bank directly).

If a person's monthly salary is less than 4 (four) million, what is required to register for QRIS is a passbook and ID card of the business actor (Merchant), unless the business entity has other special criteria and documentation that must be



submitted along with the registration. If a business owner but does not have a bank account, must open it before registering the QRIS system on site. This is because customers who pay with QR Codes will receive their payments deposited into the account automatically, and the bank will send an email when this happens. Within three to five working days of registration, the bank will provide a barcode and the QR code will work.

Researchers investigated traditional market business owners with a series of questions about their experience with QR Codes. Questions are focused on the

positive effects of using QRIS and the effectiveness of adopting such technologies. However, respondents also reported that buying a QR Code is less frequent than paying with cash and the demographic most likely to adopt the technology is young adults (aged 18 to 40). When customers pay using QR Codes, MSMEs don't have to worry about getting their money back or establishing direct contact with customers. This makes business transactions faster, simpler, and more secure. The advantages and disadvantages of the QRIS payment system include the following:

**Table 1.** Advantages and Disadvantages of QRIS Payment System

Excess	Deficiency
Starting a trading fee is only one rupiah. It is convenient because there is no need to have a lot of cash but it can still be replaced based on the minimum amount spent. Transactions can be completed quickly and securely without the need to carry large amounts of cash. There is also no need for physical interaction to minimize the spread of covid-19.	The limit on the number of transactions is (2 million). Limitations caused by unstable internet connection. Supplies of kouta that can run out at any time.

Regarding these shortcomings, of course, it cannot be avoided because the QRIS payment system does require internet and quota for transactions. In addition, in terms of the maximum nominal value for this transaction, Bank Indonesia has just made the first update in accordance with the Regulation of Members of the Board of Governors Number 21/18/PADG/2019 article 8 with a maximum of Rp. 2,000,000,- (two million rupiah)/transaction using QRIS.

**The effectiveness of QRIS transaction implementation**

According to Soejono Soekanto's

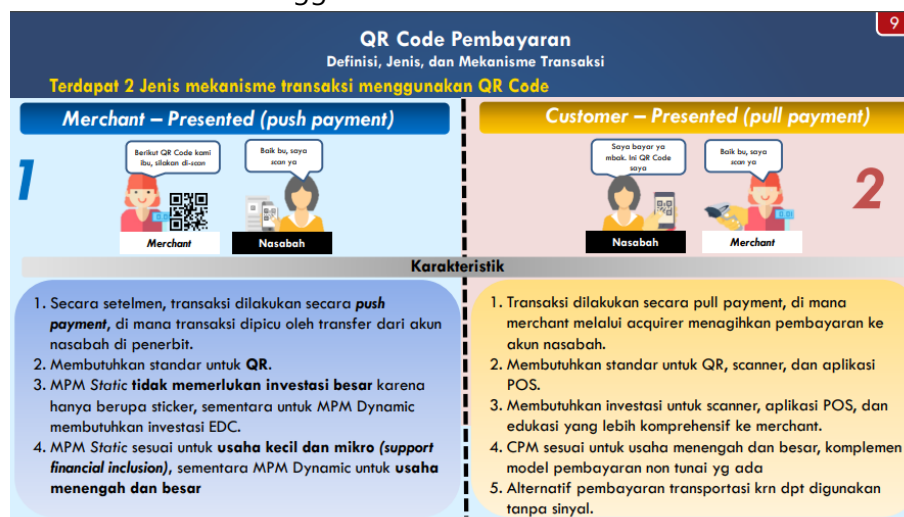
theory of efficiency, the law is a norm that serves as a standard for measuring a person's personal philosophy of what constitutes appropriate behavior. The methodology used is inductive-empirical, that is, observing through study and direct observation what is happening in the conventional market with regard to the QR Code payment system. Is the implementation of the QRIS payment system in the conventional market in line with the wishes of the government, and do the public and corporate actors participate in development that is subject to

government regulations? QRIS. Some of the things that can make legal efficacy are:

Regulation of Members of the Board of Governors No. 24/1/PADG/2022 concerning the Second Amendment to the Regulation of Members of the Board of Governors No. 21/18/PADG/2019 concerning the Implementation of the National Standard for Rapid Payment Response Codes, Chapter 6 explains the legal factors themselves in relation to the QRIS regulation. All QR Code Payment transactions in Indonesia must use the use of QRIS. Based on the QRIS decision of Bank Indonesia, the pattern of using QR Code Payment as referred to in Article 3 paragraph (2) is used to carry out these responsibilities. Despite the rampant promotion of QR Code payment methods in traditional markets, not all vendors or customers actually take advantage of it.

The government, Bank Indonesia, and traditional market managers as well as micro, small and medium enterprises (MSMEs) should be able to invite and socialize to traditional markets to encourage merchants to offer QR Code payment facilities to facilitate the effective implementation of non-cash payments. In which, government data suggests

consequences for further studies will follow. Knowing the implementation of QRIS-based payment gateway transactions, the challenges faced in realizing the implementation of QRIS-based payment gateway transactions for micro, small and medium enterprises (MSMEs), and the solutions carried out to overcome obstacles in the implementation of QRIS-based payment gateway transactions for micro, small and medium enterprises (MSMEs) are the implications of conducting research on this topic. The results of this study are expected to help Bank Indonesia and micro, small and medium enterprises (MSMEs) better consider managing the introduction of QRIS-based payment gateway transactions. Bank Indonesia and micro, small and medium enterprises (MSMEs) are expected to be able to overcome obstacles in realizing community participation, and it is also expected that the public will participate in the future if branches and micro, small and medium enterprises (MSMEs) succeed in implementing QRIS based on payment gateway transactions and realizing community participation. The following types of transaction mechanisms using QRIS:



**Figure 3.** Types of transaction mechanisms using QRIS

Source: <https://www.bi.go.id/id/edukasi/Documents/Bahan-Sosialisasi-QRIS.pdf>

Based on the picture above, there are 2 types of transaction mechanisms using QRIS, the first is Merchant-Presented (push payment) and Customer-Presented (pull payment). For more details, you can see the characteristics in the picture above.

### CONCLUSIONS

The following conclusions can be drawn from the discussion of the previous chapter on the issues and phenomena presented in this study, which are related to the responses of the speakers to the questions asked earlier, especially related to the implementation of QRIS-based payment gateway transactions. The result is the first time that many merchants and the general public do not understand the features and advantages of the program, the installation of a QRIS-based payment gateway for merchant transactions is still not going well. QRIS-based payment gateway transactions have not become commonplace because many individuals do not have an application to make these transactions, barcodes are sometimes inaccurate, additional fees are needed, and distance to ATMs also hinders merchant capital turnover. Second, the public and MSME players have begun to switch to the use of QRIS because it can minimize the spread of Covid-19. Third, QRIS shows effectiveness in the transaction process during the Covid-19 pandemic is very effective, besides that there are 2 types of transaction mechanisms using QRIS, the first is Merchant-Presented (push payment) and Customer-Presented (pull payment).

### REFERENCES

- Alfianti, A. (2020). *Implementation of financial technology in a qr code-based payment system at Bank Syariah Mandiri Palangka Raya branch*. IAIN Palangka Raya.
- Atmaja, Y. S., & Paul, D. H. (2022). Bank Indonesia Participation in Regulating Digitalization of the Indonesian Payment System. *Legal Matters*, 51(3), 271–286.
- Elyta, R., & Mutia, R. (2020). *Little Financial Skills: Educating a Financially Smart Generation Early on*. Just like that.
- Fitriyani, I., Wahyuni, R. D., & Lamadjido, R. A. (2021). Case Report: PCR Test for SARS-CoV-2 Remains Positive with Minimal Clinical Symptoms at the Hospital. Undata Palu, Central Sulawesi. *SCRIPTA SCORE Scientific Medical Journal*, 3(1), 84–91.
- Hadi, A. (2021). *Qualitative research phenomenological studies, case studies, grounded theory, ethnography, biography*. CV. Pena Persada.
- Harahap, K., Anggraini, T., & Asmuni, A. (2022). Cryptocurrencies in Sharia Effectiveness: As Commodity Currencies or Assets. *Niagawan*, 11(1), 43–56.
- Hardiky, M. I., Nova, D. K., Rahmadewi, A., & Kustiningsih, N. (2021). Optimization of Digital Payment as a Payment Solution for MSMEs roti Kasur. *Journal of Entrepreneurship*

- 
- Research*, 4(1), 44–48.
- Isbaniah, F., & Susanto, A. D. (2020). Pneumonia corona virus infection disease-19 (COVID-19). *Journal Of The Indonesian Medical Association*, 70(4), 87–94.
- Isdairi, M., Anwar, H., & Sihaloho, N. T. P. (2021). *Community compliance in the implementation of social distancing during the Covid-19 pandemic*. Scopindo Media Library.
- Ismayani, A. (2019). *Research Methodology*. Syiah Kuala University Press.
- Miharja, M., Syahrudin, E., Saparuli, S., Pratama, V. A., Mahendra, H., Saut, R., Hardian, H., & Martua, S. (2020). The Use of Recycled Plastic as Liquid Hand Soap Packaging in Muhammadiyah Kramat Jati, East Jakarta (KMK No. HK. 01.07-Menkes-382-2020 Concerning Health Protocols for the Community in Public Places and Facilities in the Context of Preventing Covid-19). *National Journal of Community Service*, 1(1), 67–77.
- Munsarif, M., Suryawan, M. A., Markani, M., Resha, M., Yuswardi, Y., Wanita, F., Siregar, M. N. H., Suryani, A. I., Latif, N., & Hasibuan, A. (2022). *Introduction to E-Commerce*. The Foundation We Write.
- Natalina, S. A., Zunaidi, A., & Rahmah, R. (2021). Quick Response Code Indonesia Standard (Qris) as a strategy to survive Micro, Small and Medium Enterprises (MSMEs) during the pandemic in Kediri City. *ISTITHMAR: Journal of Islamic Economic Studies*, 5(2).
- Prasetio, A., Ashoer, M., Hutahaean, J., Simarmata, J., Samosir, R. S., Nugraha, H., Jamaludin, J., Harmayani, H., Putra, S. H., & Irdawati, I. (2021). *Basic Concepts of E-Commerce*. The Foundation We Write.
- Setiawan, I. W. A., & Mahyuni, L. P. (2020). QRIS in the eyes of MSMEs: exploration of the perceptions and intentions of MSMEs using QRIS. *E-Journal of Economics and Business Udayana University*, 10(9), 921–946.
- Sriekaningsih, A. (2020). *QRIS and the New Era of Payment Transactions 4.0*. Andi Publishers.
- Surya, H., Andung, P. A., & Tuhana, V. E. (2021). Corporate Communication in the Qris Program Digital Campaign of Bank Indonesia Institution NTT. *Journal of Digital Media and Relationships*, 3(2), 52–61.
- Wardhono, A., Indrawati, Y., Qoriah, C. G., & Nasir, M. A. (2019). *Central bank policy behavior in Indonesia*. Perpetual Library.
- Yunida, H. (2021). The Effect of Emergency Ppkm and 5 M Health Protocols on the Decline of Covid-19. *Journal of Innovation Research and Knowledge*, 1(4), 547–556.
- Yusanto, Y. (2020). Variety of Qualitative Research Approaches. *Journal of Scientific Communication (Jsc)*, 1(1).
-



© 2023 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY SA) license (<https://creativecommons.org/licenses/by-sa/4.0/>).

---