



Quick Response Code Indonesian Standard as a Digital Payment Solution to Increase the Turnover and Reduce the Circulation of Counterfeit Money

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ABSTRACT

With the increasing use of the internet and smartphones in Indonesia, the use of digital payment technology is increasing. The advantage of cashless payment is that it is very convenient for users because it allows payments to be made easily and quickly without using cash. Especially during the outbreak of the Covid outbreak, there was a critical decline in the turnover of Micro, Small and Medium Enterprises (MSMEs). In this case, MSME players must keep up with the times of digitalization, especially by utilizing the Quick Response Code Indonesian Standard (QRIS) system that has been provided by the Indonesian government. On the other hand, the rampant circulation of counterfeit banknotes has made some parties, especially micro, small and medium enterprises, feel uncomfortable receiving counterfeit Rupiah. This research aims to find out QRIS as a digital payment solution that can increase the turnover of Micro, Small and Medium Enterprises (MSMEs) while also reducing the circulation of counterfeit money in Indonesia. This research uses a qualitative descriptive method with a systematic literature review. The data analysis technique used qualitative analysis that describes factual information. This study shows that QRIS can increase the sales turnover of MSMEs because QRIS is a digital payment solution that can make it easier for MSMEs to run their businesses in an effort to improve service quality and competitiveness, and is expected to increase interest in repeat visits and increase profits. The use of QRIS as a payment medium makes the transaction process with consumers easier, faster and safer. In addition, it can prevent the spread of counterfeit banknotes or counterfeit rupiahs and reduce the risk of counterfeit currency fraud or counterfeit rupiahs.

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1. INTRODUCTION

Along with the increasing use of smartphones and the internet in Indonesia, the use of digital payment technology is also increasing. This type of service is widespread by consumers in payment transactions. Survey results [1] state that in Indonesia the number of digital payment users has increased in recent years. The advantage of digital payment or cashless payment is that it is very convenient for its users, because it allows transactions to be carried out easily and quickly without using cash. In addition, the survey results [2] show that some consumers say that non-cash payments are a safer payment method in the transaction process. The payment transaction process is carried out using a smartphone via SMS, Internet banking, m-banking, electronic money or e-wallet [3]. The convenience offered by digital payments and the widespread use of digital technology by consumers should be the main concerns of business people when implementing digital payments into their business or business transaction processes.

In Indonesia, the use of electronic money and digital wallets is increasing with the aim of facilitating payment transactions [4]. Bank Indonesia has launched QRIS as a QR-code standard in Indonesia. QRIS is a QR code launched by Bank Indonesia together with ASPI and standardized for use in all QR code-based payment applications [5]. QRIS is a combination of different QR codes from different payment system service providers, so that merchant owners can use QRIS from one publisher to conduct non-cash transactions based on QR codes from different publishers [6]. Payment via QRIS also provides benefits for consumers because payment via QRIS does not charge administrative fees to consumers. The presence of QRIS makes business transactions with non-cash faster and easier, especially for MSME players [7].

Since the outbreak of the covid-19 or so-called coronavirus pandemic, the sales of MSME entertainers have continued to experience a severe decline. In general, several MSME business sectors are affected, including convenience stores or department stores, the travel industry, food and beverage suppliers, retail exchanges, bicycle repairs, exchanges for cruisers and transportation. Based on information managed by P2E LIPI, the impact of the decline in the travel industry on MSMEs that run mini food and beverage businesses is 27%. However, the impact on independent food and beverage companies is 1.77%, and the impact on medium-sized companies is 0.07%. The impact of coronavirus infection on wood and rattan production units and miniature farms amounted to 17.03%. The self-employed in the wood and rattan processing sector amounted to 1.77%, and medium-scale enterprises accounted for 0.01%. Family occupancy will also initially range from 0.5% to 0.8% [8]. In this case, MSME stakeholders should follow the development of the digitalization era, especially by using the QRIS system provided by the Indonesian government so that later it is hoped that the QRIS can increase the sales turnover of MSMEs after the Covid-19 pandemic.

On the other hand in Indonesia QRIS can also reduce the circulation of counterfeit money or fake rupiah. The circulation of counterfeit banknotes is increasingly rampant in Indonesia, many circulating fake banknotes that are almost similar to the original money. People feel uncomfortable with the rampant circulation of counterfeit banknotes and fake rupiahs in Indonesia. If we receive counterfeit banknotes, we cannot use the money anymore so that we lose and other people also lose [9]. The methods and techniques of counterfeiting rupiah banknotes vary, ranging from simple methods to professional methods using modern technological age techniques. With the increasing sophistication of technology, counterfeit money syndicates are able to print counterfeit money that is increasingly similar to the original [10].

The number of counterfeit banknotes in circulation is increasing from year to year. This happens because information on how to make counterfeit banknotes is now available online and technological advances also make it easier for criminals to make counterfeit banknotes. In fact, technological advances such as color printers make counterfeiting banknotes easier and more perfect [11]. Therefore QRIS is a digital payment code, QRIS is here to help prevent the spread of counterfeit currency and reduce the risk of receiving counterfeit currency. This means that later there will be no more cash exchanges that will be carried out every transaction [12].

The institution that controls the circulation of rupiah money is the Bank, especially the Central Bank of the Republic of Indonesia, namely Bank Indonesia [13]. One of the new solutions or breakthroughs of Bank Indonesia together with ASPI in promoting the convenience and security of payment transactions, launched QRIS on August 17, 2019 and took effect on January 1, 2020 [14]. Bank Indonesia launched QRIS to integrate all QR Code-based payment applications [15]. To date, QRIS transactions have reached Rp 24.97 trillion and the number of users reached 43.44 million as of October 2023 [16]. With the Quick Response Code Indonesian Standard (QRIS), it is hoped that it can reduce the number of counterfeit money circulation in the community so that it has a positive impact on the income generated by MSME players and can increase consumer convenience in transactions.

On this basis, this is in line with the research objectives, namely to find out the use of QRIS in increasing consumer convenience in transactions and having a positive impact on sales, especially MSME players and at the same time QRIS can also reduce the rampant circulation of counterfeit money or fake rupiah in the community, especially MSMEs.

This research provides benefits for researchers and readers. Broadly speaking, this research is theoretically useful, it is hoped that it can add knowledge, can increase literacy, and enrich the treasury of knowledge about QRIS. And also has the aim of analyzing QRIS as a digital payment tool, QRIS opportunities for MSMEs, the impact of QRIS on MSME turnover, the effectiveness of QRIS in reducing counterfeit money circulation, and providing policy recommendations to improve QRIS and MSMEs.

This research has great significance in overcoming the problem of counterfeit money circulation with QRIS as a digital payment solution, because it will be more difficult for unauthorized or legitimate parties to produce counterfeit money because transactions are carried out electronically. The advantage of this research is that QRIS can help reduce economic losses incurred by counterfeiting activities, digital payments through QRIS can also help increase the turnover of MSMEs by expanding market reach and facilitating practical transactions, and QRIS allows payment transactions that are Fast, Easy, Cheap, Safe and Reliable or commonly abbreviated as Cemumuah.

Thus, research on QRIS as a digital payment solution not only aims to overcome concrete problems in the circulation of counterfeit money, but also has the potential to have a positive impact on strengthening the economy, especially MSME players.

2. RESEARCH METHOD

Type of Research

This research uses a qualitative descriptive method. This type of research also includes library research. In this research, data is collected, processed and analyzed based on books, magazines, news, journals and so on [17]. The qualitative descriptive method in this study is used to determine QRIS as a digital payment tool, QRIS opportunities for MSMEs, the impact of QRIS on MSME turnover, the effectiveness of QRIS in reducing counterfeit money circulation, and providing policy recommendations to improve QRIS and MSMEs.

Data Sources

Data sources are taken from literature, namely primary and secondary sources. Primary data is often also called raw data or current data because through interviews researchers obtain data from research subjects [18]. Meanwhile, secondary sources of research obtained data from various sources, for example books, reports, journals, and so on related to QRIS [19].

Data Collection Method

Data collection methods are steps used in an effort to obtain and collect data or information carried out in research. For this research data collection, literature collection is carried out regarding QRIS as a digital payment tool, QRIS opportunities for MSMEs, the impact of QRIS on MSME turnover, the effectiveness of QRIS in reducing counterfeit money circulation, and providing policy recommendations to improve QRIS and MSMEs.

Data Analysis Technique

Data analysis involves organizing and classifying data according to patterns, categories, and basic explanatory units, so as to find themes suggested by the data and formulate working hypotheses [20]. The data analysis method used is qualitative analysis, which describes factual information obtained from magazines, websites, news, a lot of data, and QRIS information. Both in oral and written form and can be observed by the party under study.

3. RESULTS AND DISCUSSION

3.1. QRIS as a Digital Payment Tool

Quick Response Code Indonesian Standard (QRIS) is a QR code developed by Bank Indonesia in collaboration with ASPI, which aims to make the digital payment system effective and safe, encourage government efficiency, and accelerate digital financial inclusion. QRIS is a QR code provided for all types of digital payments. QRIS was first introduced at Bank Indonesia's head office on August 17, 2019, coinciding with Indonesia's 74th Independence Day, and will also be introduced at local Bank Indonesia representative offices. The implementation of QRIS stipulated in the regulation must be used for all digital payment transactions in Indonesia that are enabled with QR codes from January 1, 2020 onwards [21].



QRIS Example Image for MSMEs

QR codes are two-dimensional matrix-shaped images that can store data. QR codes are a further development of one barcode or two barcodes. This means that the symbols that contain information are in the form of black and white patterns and are easy to scan. QR codes can store a lot of information in a matrix [22]. QRIS introduced by Bank Indonesia is part of the development of a digital payment system. Digital payment is a goal that must be achieved in the future so that people can make payments with smartphones. Therefore, such prepayments lead to a reduction in cash payments. In some market centers and community circles, many people have stopped paying cash during trading activities. However, there are still very few people using smartphone payments in developing countries [23].

The purpose of QRIS implementation is to facilitate the implementation of digital payment transactions, streamline the payment system, and accelerate digital inclusion. It is easy for users to use QRIS with their digital wallets and mobile banking applications [24]. Therefore, the advantages of QRIS for application users are: (1) Fast and modern, (2) No need to carry cash, (3) No need to worry about whose QR is attached, (4) Protected because all PJSPs implementing QRIS are definitely licensed and supervised by Bank Indonesia. Meanwhile, merchants get the following benefits: (1) Increased sales by being able to accept all QR-based payments, (2) Increased branding, (3) Become more modern, (4) Become more convenient because it uses one QRIS, (5) Reduce cash management costs, (6) Avoid counterfeit money, (7) No need to prepare change, (8) Transactions are automatically recorded and can be viewed at any time. (9) Separate business and personal money, (10) Facilitate reconciliation in recording cash transactions and potentially prevent fraud, (11) Facilitate credit profile information to facilitate future credit.

3.2. QRIS Opportunities for MSMEs

As a country with a large number of small and medium enterprises, Indonesia has great potential in utilizing digital technology for economic growth. As a digital payment innovation, QRIS offers various opportunities for MSMEs to grow and adapt in the current digital era [25]. QRIS offers an alternative, more efficient cashless payment method [26]. By using standardized QR codes, product and service providers (sellers) no longer have to have different types of QR codes from different publishers [8].

For MSMEs, QRIS provides several opportunities that can increase efficiency and accessibility such as QRIS can reduce dependence on cash or credit transactions which often require additional costs such as admin or merchant fees so that with QRIS transaction costs can be lower. With QRIS, MSMEs can accept various payment methods from various banks and digital wallets making it easier for consumers to use various payment platforms. With QRIS, MSMEs can follow trends and attract customers who want to make cashless payments. QRIS records all transactions which can help MSMEs in analyzing sales, adopting QRIS technology can improve the image of MSMEs as modern and innovative businesses. QRIS also allows MSMEs to integrate online payments more easily. Thus, QRIS provides opportunities for MSMEs to improve operational efficiency, reach more consumers, and increase the ability to compete in an increasingly digitized market.

3.3. QRIS Impact on MSME Turnover

Before Bank Indonesia implemented QRIS, payments with QR codes needed to be customized with consumer applications. QR codes can only be read or scanned by one application or PJSP, so merchants must provide multiple QR codes compatible with customer applications for payment. Therefore, payments will include multiple QR codes, and merchants will have to cooperate with multiple PJSPs. Small PJSPs were eliminated by the widespread PJSPs. Before Bank Indonesia launched QRIS, QR code-based payments

needed to be customized with consumer applications. Since QR codes can only be read or scanned by applications or PJSPs, merchants had to provide a large number of QR codes to process customer payments through applications. As a result, payment counters are filled with many QR codes and MSMEs have to cooperate with many PJSPs. Small PJSPs also tend to perform less well than the PJSPs used by buyers. As a result, the Head Office of Bank Indonesia launched QRIS simultaneously in all branches for the first time on August 17, 2019, coinciding with the 74th Independence Day of the Republic of Indonesia. QRIS is mandatory for digital payments in Indonesia using QR codes, effective from January 1, 2020. The launch of QRIS aims to help payment system service providers (PJSPs) realize the vision they have prepared since May 2019 [27].

Bank Indonesia Governor Perry Warjiyo at the launch of QRIS said that the purpose of launching QRIS is to enable digital payments safely and efficiently, encourage financial inclusion, and support the strengthening of MSMEs to grow the country's economy. This is one of the keys to the Indonesian economy which relies on micro, small and medium enterprises. MSMEs have many advantages, including very rapid development and growth, wider job creation and a faster balance of state development compared to large companies that prioritize mechanized technology.

An interview was also conducted with one of the grocery stores that the implementation of QRIS usage was still not optimal among millennials. Because there are still millennials who do not understand how to use QRIS and are constrained by the network. But he expressed the opinion that digital payment transactions using QRIS are more effective because paying with cash must first calculate the amount of change, while for non-cash it can directly scan the QRIS barcode, then enter the nominal product or item purchased, the transaction is complete and the money will go to the account of the seller or MSME players.

3.4. The Effectiveness of QRIS in Reducing Counterfeit Money Circulation

QRIS is a payment system standard using QR codes introduced by Bank Indonesia with the aim of making the transaction process using QR codes easier, faster, and safer. Regarding QRIS, all payment system service providers are required to use QR codes as a payment system and implement QRIS. With QRIS, all payment applications support bank and non-bank payment systems used by the general public. In addition, the QR code payment system can not only be used in shopping centers, but also in all stores with the QRIS logo, food stalls, parking lots, travel tickets and donations, as well as providing QRIS to distributors and application providers for the public interest [28]. Bank Indonesia aims to introduce the QR code payment system because MSMEs can use QRIS and small merchants such as markets, street vendors, restaurants, caterers, photocopy shops, hardware stores, bakeries, and so on are included in the MSME category.

Of course, the effectiveness of QRIS in reducing the circulation of counterfeit money is very important. Because every transaction using QRIS, of course, we don't need to spend cash, just scan the barcode listed, enter the nominal product or item, the money will go directly to the seller's account, and no longer need to spend money. The problem is that there are people who misuse money such as the printing of counterfeit money. So we as Indonesian citizens do not know whether every money we use is genuine. Therefore, QRIS is present as a solution in digital payment transactions, so that MSMEs no longer need to worry about the circulation of counterfeit money. By using QRIS, Cemumuah (Fast, Easy, Safe, and Reliable) is certain for merchants.

3.5. Policy Recommendations for Improving QRIS and MSMEs

Policy recommendations to encourage widespread implementation of QRIS among MSMEs include: (1) Continuous improvement is needed to ensure the functionality provided by QRIS provides a variety of tangible benefits for both merchants and consumers, (2) The need to further improve the usability and speed of the QRIS transaction processing process, (3) Socialization and dissemination of QRIS-related information about the usefulness and ease of use of QRIS needs to be further improved, especially in non-urban areas that are already accessible to the Internet network, (4) Given the importance of recommendations from close friends and consumers on MSMEs' intention to use QRIS, various socialization programs, promotions, and discounts related to the use of QRIS must consider consumer involvement. For example, as a QRIS service provider, banks can offer various attractive programs and benefits to customers who transact through QRIS. This will stimulate consumer interest in using QRIS and encourage merchants where they shop to offer QRIS as an alternative payment method. QRIS will be widely used by MSMEs, because MSMEs that are agile and always strive to provide the best service to consumers inevitably have to follow consumer demand [25].

In addition, to increase QRIS adoption and support Micro, Small, and Medium Enterprises (MSMEs), the government needs to implement a comprehensive set of policies. First, through an intensive education program, MSMEs need to be given a deep understanding of the benefits of QRIS in improving transaction efficiency and accessing a wider market. Second, fiscal incentives such as tax exemptions or

reduced tax rates can be provided to MSMEs that adopt QRIS as a payment method, thus encouraging more businesses to make the transition to digital payments. Third, strategic partnerships with financial institutions are needed to provide technical and financing support to MSMEs in implementing QRIS. This will help overcome the technical and financial barriers that MSMEs may face. Also, strict law enforcement against illegal practices involving QRIS, such as money laundering or fraud, is important to ensure security and trust in the digital payment system. Active collaboration with related industries such as e-commerce and financial technology companies is also needed to expand MSME access to the digital market. By implementing this policy together, it is expected to increase the acceptance of QRIS and support the growth and competitiveness of MSMEs in the digital economy era.

4. CONCLUSION

In this article, we have discussed the importance of QRIS adoption for MSMEs. The main findings show that QRIS can increase the sales turnover of MSMEs, expand the range of payments, and strengthen the ability to compete in the digital era. The implication of these findings is the need for better policy support and training for MSMEs to adopt QRIS successfully. The importance of this topic is very clear in the context of the growing digital economy, where MSMEs need solutions to improve their competitiveness. The government and relevant agencies are recommended to adopt supportive policies, provide adequate training, and encourage collaboration between stakeholders. With these measures, MSMEs are expected to utilize the full potential of QRIS and develop their business in a more advanced direction in the growing digital ecosystem so as to increase the turnover of these MSMEs. On the other hand, QRIS also plays a role in preventing the rampant circulation of counterfeit money, because when we transact, we do not use cash but with non-cash transactions so that it can minimize the circulation of counterfeit money.

Due to the limited explanations that researchers can provide, and the lack of references from various sources, this research can be used as evaluation material for MSME actors to follow the digital development system in their business or business transactions so that later it can have a positive impact on increasing the turnover of MSMEs themselves. And MSME players must be even more careful in using cash transactions using money, because there are people who abuse the rupiah money by counterfeiting rupiah money. Therefore, digital transactions with QRIS can certainly be implemented by MSME players to avoid counterfeit money and also have a positive impact on increasing the turnover of these MSMEs.

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