

Implementation of Fintech (QRIS) as an Effort to Increase Digital Payment Transactions among MSMEs

Revita Sari¹, Muhsin Lambok Ilvira²

¹ Department of Accounting, Faculty of Economics and Business, Universitas Muhammadiyah Sumatera Utara, Medan, Indonesia. Email: revitasari@umsu.ac.id

² Department of Law, Faculty of Law, Universitas Muslim Nusantara Al Washliyah, Medan, Indonesia.

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ABSTRACT

Transactions that were initially solely conducted in cash are now easier through the development of Financial Technology (Fintech), examples of which include Go-pay, OVO, Shopee pay, and the Quick Response Code Indonesian Standard (QRIS). The Quick Response Code Indonesian Standard (QRIS) can be an alternative to improve payment efficiency for MSMEs. QRIS (Quick Response Code Indonesian Standard) Merchant is a digital payment solution designed to facilitate transactions between customers and businesses. In the context of MSMEs (Micro, Small, and Medium Enterprises), QRIS Merchant plays a crucial role in supporting business growth and development. The research problem is how to implement QRIS among MSMEs around the Muhammadiyah University of North Sumatra (UMSU). Other objectives are to identify obstacles faced, understand the perceived benefits, and find solutions to problems in implementing QRIS. The optimization of QRIS use is analyzed through interviews and direct observation of merchants who have used QRIS and from the perspective of consumers who have transacted using the system.

Keywords: Financial Technology (Fintech), QRIS, MSMEs.

I. Introduction

MSMEs are a sector that can reduce economic and social inequality, foster a sense of family and cooperation, and increase the purchasing power of domestic consumers. The goal of MSMEs in Indonesia is to grow and develop their businesses in order to build a national economy based on equitable economic democracy (Billah, 2021). The role of MSMEs in driving the national economy is to absorb a large workforce, increase gross domestic product (GDP), and overcome economic crises. The Explanation of Law Number 20 of 2008 concerning MSMEs (Micro, Small, and Medium Enterprises) states that MSMEs play a role in equalizing and increasing community income, driving economic growth, and contributing to national stability. However, a major problem frequently encountered in the MSME sector in Indonesia is capital. High loan interest rates and the need for substantial asset collateral are among the factors that make it difficult for MSMEs to obtain working capital. The emergence of financial technology (fintech) can support the growth of the MSME sector, enabling it to operate optimally (Muhammad Rauuf Ramadan, 2021). The digital transformation of MSMEs has driven the growth of the digital economy in Indonesia. In 2022, this sector generated US\$77 billion in revenue, a 22% increase compared to the previous year, with e-commerce being a major contributor. According to the Indonesian E-Commerce Association (idEa), 21.8 million MSMEs had gone digital by 2022. Research from

INDEF in December 2023 showed that MSME digitalization creates new jobs and improves operational cost efficiency. This allows MSMEs to redirect funds from operational costs to increased productivity. A 2019 ASEAN study found that digitalized MSMEs can reduce production costs by up to 44% (data.goodstats.id).

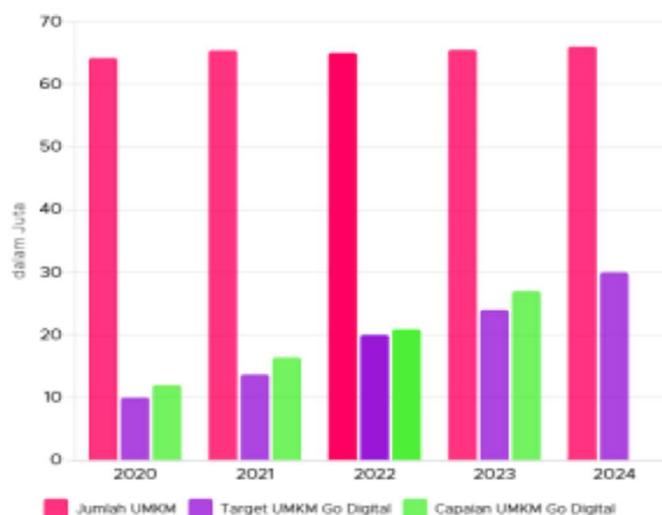


Figure 1. Number of MSMEs Going Digital (in millions)

Financial technology can also be defined as a technology-based financial system that produces new products, services, technologies, and business models that impact monetary stability, financial system stability, and the efficiency, smoothness, security, and reliability of payment systems. Many people are turning to fintech because they want everything to be fast and easy, without restrictions and strict regulations (Purwanto & Fachrizi, 2021). Optimizing fintech to expand the reach of financial institutions in developing micro, small, and medium enterprises (MSMEs) is an increasingly relevant topic in today's digital era. Financial technology (fintech) is digital finance that provides services in payment systems, banking, insurance, loans, crowdfunding, and even education to the public through digital media. In general, several fintech services are currently developing in Indonesia, including payment channels or systems, digital banking, online/digital insurance, Peer-to-Peer (P2P) Lending, and crowdfunding (Wardani & Darmawan, 2020). Fintech, or financial technology, has become a significant innovation offering various solutions to improve the accessibility of financial services for MSMEs. The MSME sector in Indonesia plays a crucial role in the economy, contributing approximately 60% of total GDP and employing nearly 97% of the workforce (Robiul Rochmawati, 2023). However, despite the significant number of MSMEs, only around 12% of them have access to financing from traditional financial institutions such as banks (Fajar & Larasati, 2021). Some of the limitations faced by MSMEs include limited access to banking services, low human resource skills or knowledge, limited use of technology, and the inability to keep pace with changing consumer preferences or needs, which are increasingly focused on export-oriented industries. The continued lack of technology use to streamline MSME transactions is another issue. Currently, the rapid development of digital technology has led to numerous payment innovations, including effective and efficient financial transaction support. The existence of fintech aims to facilitate public access to financial products, facilitate transaction interactions, and improve financial literacy. E-wallets, or electronic wallets, are digital payment instruments that operate through server-based electronic media. Using an e-wallet allows users to perform various transactions, similar in function to a physical wallet. E-wallets were first recognized as a method of storing money electronically, but they gained popularity because they offered a convenient way for internet users to store and use information while shopping online.

Transactions that were initially solely conducted in cash are now easier through the development of Financial Technology (Fintech), examples of which include Go-Pay, OVO, Shopee Pay, and the Quick Response Code Indonesian Standard (QRIS). Non-cash payments in the modern era are experiencing rapid development, prompting Bank Indonesia to innovate to improve the non-cash payment system. Currently, there are two

active innovation products from Bank Indonesia being socialized to the public, one of which is the Quick Response Code Indonesian Standard (QRIS). The presence of QRIS has been welcomed by various parties and is expected to contribute to the growth of the digital economy in Indonesia. Bank Indonesia (2020) states that QRIS (Quick Response Code Indonesian Standard) is a QR Code payment standard for payment systems in Indonesia, developed by Bank Indonesia and ASPI (Association of Indonesian Payment Systems). QRIS also offers benefits such as low transaction costs and enhanced security. The increase in the number of QRIS merchants and QRIS users correlates with the increase in the volume and nominal value of transactions processed by each merchant each year. This trend indicates that the growing population of QRIS users and merchants are no longer merely passive participants or observers, but rather active participants utilizing QRIS technology for transactions. QRIS (Quick Response Code Indonesian Standard) Merchant is a digital payment solution designed to facilitate transactions between customers and businesses. In the context of MSMEs (Micro, Small, and Medium Enterprises), QRIS Merchant plays a crucial role in supporting business growth and development. By using QRIS Merchant, MSMEs can accept digital payments more easily and efficiently, thereby increasing accessibility and convenience for customers. Therefore, the researcher was interested in choosing this title because this research aims to examine the implementation of QRIS among MSMEs around the Muhammadiyah University of North Sumatra (UMSU). Another objective is to identify obstacles encountered, understand the perceived benefits, and find solutions to problems in QRIS implementation. The optimization of QRIS use is analyzed through direct observation of merchants who have used QRIS and also through the perspectives of consumers who have transacted using the system.

II. Research Method

This study employed a qualitative research method, a method used to examine objects in their natural state, with the researcher as the primary instrument. The research subjects included MSMEs around the UMSU campus, as well as consumers who had made transactions using QRIS. The primary objective of this descriptive study was to obtain descriptive knowledge that described the conditions as they were, without any reduction or exaggeration. Data collection techniques used included interviews and observations. The research procedure involved several stages, including: problem identification, determining the research focus, data collection, and data reduction and classification to ensure relevance to the research focus. Data collection was conducted directly in the field after preparing the research instruments, research subjects, data collection techniques, and analyzing the collected data. After the data was deemed sufficient to answer the research objectives, the researcher drew conclusions.

III. Result and Discussion

The implementation of QRIS issued by Bank Indonesia aims to simplify the payment process, because a single QR Code can be used by various mobile banking applications and digital wallets. The presence of QRIS can increase transaction effectiveness while empowering MSMEs, thereby encouraging more advanced economic growth. QRIS is a major step in standardizing digital transactions. The Quick Response Code Indonesian Standard (QRIS) is a system that integrates various QR Codes from Payment System Service Providers (PJSP). QRIS was developed by the payment system industry together with Bank Indonesia to ensure the QR Code transaction process is more practical, fast, and secure. All PJSPs wishing to use QR Codes for payments are required to implement QRIS. Currently, QRIS allows payment applications from various providers, both banks and non-banks, to be used at all merchants that have the QRIS logo, including shops, small traders, stalls, parking lots, tourist tickets, and donations. This applies even if the merchant's QRIS provider is different from the application provider used by consumers. The parties involved in processing QRIS transactions include Payment System Service Providers (PJSP), Switching Institutions, Merchant Aggregators, and National Merchant Repository managers. The QRIS registration procedure for merchants begins with selecting a Payment Service Provider (PJP), such as a bank like BCA, BRI, Mandiri, or a digital wallet like DANA, OVO, or GoPay, depending on the merchant's needs. Afterward, merchants need to prepare personal

documents, such as a copy of their ID card (KTP) and a savings book. Once the documents are processed, merchants will receive a QRIS sticker that can be used immediately for transactions through various payment applications. Currently, most merchants use their personal mobile phones to transact with QRIS. QRIS use by consumers, namely individuals directly involved in QRIS transactions, is now increasingly widespread. Many consumers are aware of QRIS through the stickers merchants attach to their carts, but some MSMEs still don't understand the use and function of QRIS. However, with QRIS, MSMEs and the general public find it easier to conduct cashless transactions.

3.1. Transaction Steps Using QRIS

To conduct transactions using QRIS, several devices must be prepared. First, a smartphone capable of scanning QR codes is required. An internet data plan is also required to ensure smooth transaction processing. Next, a payment app must be downloaded and installed on the smartphone. Finally, ensure sufficient balance in the payment app used for transactions. By preparing all these devices, transactions using QRIS can be carried out easily and efficiently. Prior to implementing QRIS, each merchant is required to provide multiple payment apps at their location. Customers making non-cash payments must verify the availability of their preferred payment app at the merchant. After implementing QRIS, merchants are no longer required to provide multiple payment apps; instead, they only need to display a single QR code at their location. This QR code can be scanned by customers using various payment apps on their smartphones. (Sihaloho et al., 2020)

3.2. Implementation and Barriers to Using the Digital Payment System (QRIS) in MSMEs

Daily technological developments have undeniably had a significant impact on people's daily lives, including payment systems. This evolving technology has transformed the payment system, shifting from cash to electronic (digital) payments. The shift in people's use of digital payments was also influenced by the coronavirus pandemic several years ago, which made people reluctant to handle cash due to the potential for spreading the virus through cash, which is easily transferred from one person to another. People who previously had to carry cash when leaving the house can now make do with digital currency available on their smartphones (Nurbaiti 2023). The increasing use of smartphones can contribute to the advancement of mobile payment services in Indonesia. The widespread use of smartphones has driven significant changes in various aspects of life, including payment methods. With more people having access to smartphones, cashless payment methods are becoming an increasingly popular option. Technologies such as digital wallets, mobile banking, and electronic payment applications offer convenience and speed of transactions that cash cannot. Furthermore, these methods are considered safer because they reduce the risk of losing physical cash. Bank Indonesia has issued standards aimed at preventing monopolistic trade practices and ensuring the security and smooth operation of the payment system, which can be directly monitored by Bank Indonesia. Bank Indonesia, as the central bank, has one primary objective: achieving and maintaining the stability of the rupiah. To achieve this goal, Bank Indonesia plays a role in several aspects, such as establishing and implementing monetary policy, regulating and ensuring the smooth operation of the payment system, and supervising existing banks (Putri, 2020). Interviews with MSMEs and consumers using QRIS around the UMSU campus revealed 12 MSME respondents and 22 consumer respondents. Interviews with MSMEs revealed that eight respondents had a positive perception of QRIS due to the ease of transactions and improved business image, as it appears more modern in the eyes of customers. QRIS can be used by anyone with a smartphone and a supporting payment app. This opens access to digital payment services for people who previously lacked access to traditional banking services.

According to Davis (1986), several indicators are used to measure ease of use: According to Mrs. Anisa, a Ayam Penyet (Chicken) seller, *"using QRIS is very easy because the process is simple. Consumers only need to scan the QR code to make payments. Even those unfamiliar with technology can quickly understand how to use it."* Based on the interview with Mrs. Anisa, a Ayam Penyet (Chicken) seller, QRIS is easy for consumers and MSMEs to use. With QRIS, consumers simply scan the provided QR code and enter the payment

amount. Furthermore, sellers don't have to scramble to find change when consumers pay with larger denominations, speeding up the transaction process. The use of QRIS helps with financial record-keeping and expands the reach of digital customers. Besides the ease-of-use theory, there's also an indicator related to intention to use (Davis, 1986), which is a behavioral tendency to consistently use a particular technology. However, of the 12 respondents, four did not use QRIS as a payment transaction tool. According to Mr. Saiful, *"this is due to concerns, particularly regarding the need for a sophisticated mobile phone, internet connection support, and the complexity of using QRIS."* An interview with Mr. Saiful, a batagor (fried meatball) seller, concluded that these concerns stemmed from concerns about poor signal reception and the perceived convenience of cash payments due to the perceived benefits compared to using QRIS. However, overall, the interviews concluded that MSMEs believe QRIS is an effective solution for business modernization. Then consumer perceptions of the use of QRIS as a transaction tool, all respondents agreed that QRIS brings positive value in transaction activities, consumers responded to QRIS as an easy, fast, universal, and safe payment method, making it easier without having to wait for change, besides that it is also in accordance with current digital trends. However, behind that there are also concerns about security risks (fraud, data theft) and obstacles for consumers who are less familiar with technology or with limited internet or signal access, although overall the use of QRIS is increasing rapidly driven by convenience and changes in human lifestyle. Without an efficient payment system, trade cannot run smoothly. Therefore, the development and maintenance of a modern and reliable payment system is crucial for economic growth.

This statement aligns with payment system theory, as it states that payment systems are a component of every transaction in the trade of goods and services. An economy would have no trade without payments. With QRIS, transactions become faster and easier. Buyers simply scan a QR code using their payment app, and payments are processed immediately. This reduces queues and waiting times, thereby increasing trade efficiency. The implementation of QRIS at merchants around the UMSU campus is one example of increasing the use of digital transactions in the MSME sector, through the digitization of cashless payment transactions. Currently, the number of merchants using the Quick Response Code Indonesian Standard (QRIS) in the Medan city area continues to increase and is expected to continue growing along with the growth of the digital economy. The implementation of the QRIS (Quick Response Code Indonesian Standard) payment system for micro, small, and medium enterprises (MSMEs) is crucial in supporting financial inclusion and improving operational efficiency. The QRIS payment system can improve and influence customer satisfaction levels during every transaction. MSMEs are also believed to have high economic resilience, thus supporting the stability of the financial system and the economy. Digital transactions using QRIS have become a positive trend for both businesses and consumers, given their benefits in facilitating more efficient cashless transaction processes. The use of QRIS by MSMEs can help improve their business performance. By using a standard QR code, digital transactions for MSMEs (merchants) are more practical, eliminating the need for multiple QR codes. By using QRIS, businesses have transformed the way they conduct business, accept payments, and engage with customers. Those who previously relied on cash are now switching to QRIS, which enables electronic payments. Payments are now easier and more convenient. Customers simply need to scan the QR code to make payments, eliminating the hassle of carrying cash. The relationship between customers and business owners is also improved, with transactions running more effectively and efficiently.

The public is expected to adapt to the current digital era and keep pace with technological advances, especially in the context of micro, small, and medium enterprises (MSMEs). As the number of QRIS users increases, several obstacles naturally arise in their operations. One barrier to QRIS transactions is cultural, for example, merchants still perceive QRIS transactions as new and difficult to adopt, which discourages them from trying them. This is why many people are currently hesitant to try them; individuals remain apprehensive when transacting using QRIS because they are accustomed to constantly using cash. Another obstacle relates to the fact that many buyers and merchants in traditional markets may not fully understand how to use QRIS. Education about the benefits and how to use QRIS is crucial to increase the number of people switching to this digital payment method. Furthermore, not all buyers have access to smartphones or stable internet. Some consumers or buyers tend to be more comfortable using cash because they are unfamiliar with digital

technology. Some buyers may still be skeptical about the security of digital transactions, worrying about the potential for fraud or loss of personal data when using electronic payment methods. In addition to the obstacles described above, there are other barriers to technology adoption, particularly the duration of fund disbursement. The duration of fund disbursement is also a barrier for MSMEs in using QRIS. The process of disbursing funds from QRIS transactions to MSME bank accounts typically takes up to several hours, depending on the service provider's policies and the bank's operating hours. This poses a significant challenge for MSMEs that require rapid capital turnover to maintain the smooth running of their daily operations. For example, MSMEs that rely on daily cash flow to purchase raw materials or cover transportation and other operational costs will face challenges when funds from QRIS transactions are not immediately available. Delayed disbursements, especially on bank-free days such as weekends or holidays, further slow down the cash flow process. Field observations indicate that most transactions still involve cash.

This may be due to consumers' habit of carrying cash when shopping, or a lack of information about the benefits of QRIS for consumers, such as promotions or cashback. Some merchants interviewed also admitted that they only offer QRIS as an additional payment option, without any specific promotional efforts to encourage its use. Limited data quotas and internet connectivity are also significant contributing factors to the limited adoption of QRIS in smaller cities across Indonesia. To address the obstacles and challenges faced by MSMEs, who lack a full understanding of the benefits and how to use QRIS due to low digital literacy, several solutions can be implemented. First, conduct intensive training and mentoring programs focused on QRIS use and digital literacy. This can be achieved through direct interaction with MSMEs to facilitate understanding and provide appropriate solutions. Second, provide simple and easy-to-understand educational materials, such as video tutorials and guides on how to use QRIS, as well as educational materials on digital transaction security to increase MSME confidence in using QRIS. Third, collaboration with educational institutions, the government, or banks is also crucial to expand the reach of training and mentoring, ensuring MSMEs receive the necessary support. Finally, a community-based approach can be implemented to encourage MSMEs to share experiences and knowledge about using QRIS. This approach can create a more effective learning environment, accelerating technology adoption, creating more efficient transactions, and enhancing business competitiveness. To drive the Indonesian economy to remain at the forefront of the competitive digital market, businesses must take proactive steps to continuously improve on digital economy trends, adapt to technological changes, innovate new strategies, and enhance their competitiveness. These steps will empower businesses to thrive in the rapidly evolving digital landscape and maintain a strong market position. By using QRIS, businesses have transformed the way they conduct business, accept payments, and engage with customers. The public is expected to adapt to the current digital era to keep pace with technological advancements, especially in the context of micro, small, and medium enterprises (MSMEs).

IV. Conclusion

Based on the research results and discussions conducted, the researcher concluded that the MSMEs interviewed, regarding the implementation of QRIS in MSMEs around the UMSU campus, have been running quite well. QRIS benefits them, including ease of transactions and facilitating consumers to conduct cashless transactions using QR codes. The use of QRIS can also protect merchants from being deceived by the circulation of counterfeit money, limit the risk of money theft, and assist the government in developing the digital economy for MSMEs. Furthermore, QRIS provides merchants and buyers with the convenience of making payments, eliminating the need for change. It also facilitates consumers to conduct cashless transactions using QR codes. Consumers simply need to bring their mobile phones to quickly pay and shop at MSMEs that use QRIS. However, there are obstacles to MSMEs using QRIS, such as unstable internet connections, which often pose a barrier to both MSMEs and consumers.

References

- Aini, D. N. 2021. "Analisis Implementasi Sistem Pembayaran Quick Respond Indonesia Standard (QRIS) Bagi Pemilik UMKM di Kecamatan Cipinang Besar Selatan" (Doctoral dissertation, Sekolah Tinggi Ilmu Ekonomi Indonesia Jakarta).
- Aisyah, S., Hsb, D. N., Nurmitha, R., Veronika, R., & Putra, M. 2023. "Pengenalan Dan Implementasi Sistem Pembayaran Menggunakan QRIS Pada Mie Balap Nusa Indah". *Abdi: Jurnal Pengabdian Dan Pemberdayaan Masyarakat*, 5(2), 306-311.
- Andaiyani, S., Yunisvita, Y., & Tarmizi, N. (2020). Peran Financial Technology Sebagai Alternatif Permodalan bagi UMKM di Desa Kerinjing, Kabupaten Ogan Ilir. *Sricommerce: Journal of Sriwijaya Community Services*, 1(2), 85–92. <https://doi.org/10.29259/jscs.v1i2.16>
- Billah, Z. I. B. (2021). Peran Dan Kendala Fintech Syariah Pada Umkm. *Ar-Ribhu : Jurnal Manajemen Dan Keuangan Syariah*, 2(2), 256–266. <https://doi.org/10.55210/arribhu.v2i2.671>
- Delima Afriyanti, S. E. 2022. "Dampak Penggunaan QRIS pada UMKM di Kota Pekanbaru dalam Rangka Mendorong Perkembangan Ekonomi Digital". *Jurnal Khazanah Ulum Perbankan Syariah (JKUPS)*, 7(1), 1-6.
- Dwi, A.A Husna. (2025), "Implementasi Sistem Pembayaran Qris Dan Dampak Terhadap Omzet Umkm (Studi Kasus Pasar Manis Purwokerto Barat, Kabupaten Banyumas)", Skripsi Prodi Ekonomi Syariah, Fakultas Ekonomi Dan Bisnis Islam Universitas Islam Negeri Prof K.H Saifuddin Zuhri Purwokerto
- Fajar, M., & Larasati, C. W. (2021). Peran Financial Technology (Fintech) dalam UMKM di Indonesia: Peluang dan Tantangan.
- Fauziyah, Laylatul, and Maretha Ika Prajawati. (2023). "Persepsi Dan Risiko QRIS Sebagai Alat Transaksi Bagi UMKM." *Ekonomis: Journal of Economics and Business* 7 (2): 1159. <https://doi.org/10.33087/ekonomis.v7i2.987>.
- Muhammad Rauuf Ramadan. (2021). "Merger Bank Syariah dan Pengembangan UMKM di Indonesia". *Jurnal Syntax Transformation*, 2(06), 830–842.M <https://doi.org/10.46799/jst.v2i6.290>
- Purwanto, P., & Fachrizi, A. R. (2021). Pengaruh Financial Technology Terhadap Kepuasan Keuangan Pada UMKM Di Kabupaten Pamekasan. *Ekombis Sains: Jurnal Ekonomi, Keuangan Dan Bisnis*, 6(1), 21–28. <https://doi.org/10.24967/ekombis.v6i1.839>
- Putri, L. P., & Christiana, I. (2021). "Peran financial technology dalam membantu umkm di tengah pandemi covid-19". *EKONOMIKAWAN: Jurnal Ilmu Ekonomi Dan Studi Pembangunan*, 57–63. <https://doi.org/10.30596/ekonomikawan.v21i1.7094>
- Putri, Nindi Anindya. (2020). "Pelaksanaan Penggunaan Quick Response Code (Kode QR) untuk Sistem Pembayaran Berdasarkan Peraturan Anggota Dewan Gubernur No.21/18/PADG/2019 Tentang Implementasi Standar Nasional untuk Pembayaran di Kota Semarang". Skripsi : Fakultas Hukum, Universitas negeri Semarang.
- Rahmawati, Ika Yustina, Wida Purwidianti, Tri Septin, and Muji Rahayu. (2023). "Strategi Penguatan Kinerja UMKM Melalui Peran Optimalisasi Financial Teknologi (Fintech)" 2 (2): 157–68.
- Rukmana, S., & Mustofa, M. (2022). Optimalisasi Peranan Financial Technology (Fintech Sharia) Menuju Era Digitalisasi Koperasi. *E-Journal Ekonomi Bisnis Dan Akuntansi*, 9(1), 30. <https://doi.org/10.19184/ejeba.v9i1.29119>
- Sihaloho, J. E., Ramadani, A., & Rahmayanti, S. (2020). "Implementasi Sistem Pembayaran Quick Response Indonesia Standard Bagi Perkembangan UMKM di Medan". *Jurnal Manajemen Bisnis*, 287-297.
- Wardani, A. P. Y. K., & Darmawan, N. A. S. (2020). "Peran Financial Technology pada UMKM: Peningkatan Literasi Keuangan Berbasis Payment Gateway". *Jurnal Ilmiah Akuntansi Dan Humanika*, 10(2), 170. <https://doi.org/10.23887/jiah.v10i2.25947>