

QRIS as a Digital Payment Instrument: Its Impact on People's Financial Behavior in the Industry 5.0 Era

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Abstract.

Since its launch by Bank Indonesia in 2019, the Quick Response Code Indonesian Standard (QRIS) has become a key pillar of digital payment systems in Indonesia, accelerating financial digitization and promoting financial inclusion. This study aims to explore the impact of QRIS on public access to digital financial services and its influence on financial behavior. This study adopts a descriptive qualitative approach, collecting secondary data from Bank Indonesia reports, academic journals, previous research, and recent news articles. The findings indicate that QRIS has significantly expanded public access to digital financial services and improved transaction efficiency. However, this convenience also brings varied impacts on financial behavior. On the one hand, QRIS encourages fast and efficient transactions; on the other hand, it may trigger consumerist behavior and reduce saving intentions, particularly among individuals with low financial literacy. Financial literacy plays a crucial role in guiding the wise use of QRIS, those with higher financial understanding tend to utilize QRIS for better money management. In the context of Industry 5.0, which emphasizes sustainability and human-centric development, QRIS presents great potential for enhancing financial well-being. Nevertheless, challenges such as digital literacy gaps, risk of overspending, and the need for adequate infrastructure must be addressed strategically. Therefore, collaboration between policymakers, financial institutions, and the public is essential to foster healthy financial behavior within the rapidly evolving digital ecosystem.

Keywords: QRIS, Financial Literacy, Digital Payment, Industry 5.0

INTRODUCTION

The global financial landscape has undergone a profound transformation, driven by rapid advances in information and communication technology (ICT). This has fundamentally changed the way people conduct financial transactions (Rizkiyah et al., 2021). In Indonesia, this digital shift is particularly evident with the increasing use of digital payment systems. It is not merely a change in transaction methods, but also reflects how society adapts to technological advancements that offer unprecedented ease and speed (Fahimah & Harsono, 2023).

One of the key drivers of this transformation in Indonesia is the launch of the *Quick Response Code Indonesian Standard (QRIS)* by *Bank Indonesia (BI)* and the *Indonesian Payment System Association (ASPI)* on August 17, 2019 (Bank Indonesia, 2020). *QRIS* was designed to integrate and standardize all non-cash payment methods using QR codes, aiming to enhance the speed, convenience, affordability, security, and reliability of transactions (Andrew, 2023). The COVID-19 pandemic further accelerated the adoption of *QRIS*, encouraging contactless transactions and contributing to its widespread acceptance (Budi, 2023). This initiative aligns with the *National Non-Cash Movement (GNNT)* launched in 2014, which aims to promote non-cash transactions and accelerate economic circulation. This integration reflects the commitment of the government and regulators to build an efficient and inclusive payment ecosystem (Larasati & Maria, 2023).

Currently, the world is witnessing the emergence of *Industry 5.0*, a conceptual framework built upon the technological advances of *Industry 4.0*. However, this time, the focus has shifted to collaboration between humans and machines, sustainability, and addressing complex social challenges. This era marks a deep transformation in technology, aimed at enhancing human capabilities and quality of life, rather than merely replacing human labor. It represents a paradigm shift from efficiency alone to a balance between technology and human well-being (Rame et al., 2023).

The convergence of the growing adoption of digital payments, as seen with *QRIS*, alongside the human-centered ethos of *Industry 5.0*, creates a dynamic and engaging context for exploring the evolving financial behavior of society. Understanding this interaction is crucial to ensuring that technological advancements genuinely contribute to the overall well-being of society (Rame et al., 2023).

Although the success of *QRIS* in promoting financial inclusion and transaction efficiency across Indonesia is well recognized, a deeper understanding of its specific impact on various aspects of financial behavior—such as shopping habits, saving patterns, and overall financial management within the context of *Industry 5.0*—remains underexplored. This study aims to descriptively analyze the operational modalities and adoption trends of *QRIS* as a leading digital payment instrument (Bank Indonesia, 2020), examine its influence on consumer behavior including the reduction of the “pain of paying” and the rise of impulsive spending (Fahimah & Harsono, 2023), and assess its effect on long-term saving behaviors (Budi, 2023). It further investigates the critical role of financial literacy in moderating these outcomes, especially in light of the existing gap between financial inclusion and literacy levels in Indonesia (Rizkiyah et al., 2021). This is framed within the conceptual structure of *Industry 5.0*, which

emphasizes human-centric development and sustainability (Rame et al., 2023).

This study aims to descriptively analyze the adoption and operational dynamics of the *Quick Response Code Indonesian Standard (QRIS)* as a leading digital payment tool in Indonesia, examining its impact on consumer financial behaviors such as shopping habits, saving patterns, and overall financial management within the context of *Industry 5.0*. Additionally, the study seeks to assess the role of financial literacy in moderating the effects of *QRIS* on impulsive spending and saving intentions. The findings are expected to contribute to the academic literature on behavioral finance and fintech, offering practical implications for policymakers, financial institutions, and *MSMEs* in fostering responsible financial behavior and sustainable economic participation through targeted strategies and education programs. This research also aims to identify opportunities to leverage digital payments for public benefit while addressing emerging risks related to financial inclusion and literacy gaps in Indonesia.

This research integrates insights on *QRIS* to identify opportunities for leveraging digital payments for public benefit while addressing emerging risks. The findings are expected to enrich academic literature on behavioral finance and fintech and offer practical implications for policymakers, financial institutions, and *MSMEs* in fostering financially responsible behavior and sustainable economic participation through targeted strategies and education programs.

MATERIALS AND METHODS

This study adopts a strictly descriptive qualitative approach (Amane, 2020), which is well-suited to exploring and characterizing the complex interactions between *QRIS* adoption and financial behavior within the context of *Industry 5.0*. Rather than testing hypotheses or establishing causal relationships, this method enables nuanced, in-depth descriptions of real-world phenomena. All data will be secondary, systematically gathered from credible sources, including official reports from *Bank Indonesia* regarding *QRIS* implementation and financial inclusion efforts (Bank Indonesia, 2020), national surveys by the *Financial Services Authority (OJK)* on financial literacy and inclusion (Gultom et al., 2023), peer-reviewed academic journals on digital payments and behavioral finance (Gultom et al., 2023), and market research insights from reputable organizations such as Visa and Ipsos (Dyah Sekarsari et al., 2022). The data analysis will involve organizing, simplifying, and interpreting this information to identify patterns, significant trends, and key characteristics related to *QRIS* adoption and its implications for financial behavior and sustainability (Rahmawati et al., 2021). A qualitative content analysis will be used to extract recurring themes and core concepts from textual data, while relevant quantitative indicators—such as adoption rates and transaction volumes—will be contextualized descriptively. This synthesis aims to present the scope, magnitude, and temporal trends of *QRIS* impacts, forming an empirical foundation for a rich descriptive narrative (Andi Riski Firnanda et al., 2024).

RESULTS AND DISCUSSION

Overview of QRIS Adoption in Indonesia

QRIS was officially launched by Bank Indonesia on August 17, 2019, with the primary

goal of standardizing QR code-based payments across Indonesia. This initiative aims to integrate various cashless services into a coordinated system. The QRIS design is intended to ensure that payment transactions are fast, easy, affordable, secure, and reliable summarized by the acronym CEMUMUAH. Additionally, QRIS supports the expansion of financial inclusion and better cross-border connectivity (Bank Indonesia, 2020).

The adoption of QRIS in Indonesia has seen a rapid growth trajectory. By October 2020, around 3.6 million small and micro- businesses were already using QRIS. This number surged significantly, reaching 29.6 million merchants (92% of whom are MSMEs) and 43.44 million users by October 2023. The latest data from November 2024 shows an accelerated trend, with QRIS being used by 35.1 million merchants (90% of whom are MSMEs) and serving 55.02 million users far surpassing initial targets (Kumparan, 2024). The transaction value reached 5.46 billion, representing 218% of the set target. In the first quarter of 2025, the number of MSMEs adopting QRIS increased to 38.1 million, contributing to a total of 56.3 million users and facilitating 2.6 billion transactions (Andhika, 2025). Innovation continues with the launch of NFC-based QRIS Tap in March 2025, designed to improve transaction speed (reportedly up to 0.3 seconds) and expand access, particularly in public transportation sectors (Muhammad Trianda, 2025).

Micro, Small, and Medium Enterprises (MSMEs) are the primary adopters of QRIS and benefit the most from this technology, playing a key role in economic and financial inclusion. QRIS helps MSMEs record transactions, build credit profiles, and gain access to financing. With the ability to digitally and structurally record transactions, MSMEs can offer a credible footprint accessible to banks and financial institutions for assessing creditworthiness. This is crucial in improving MSMEs' access to formal financing (Ahmad, 2023).

As part of Indonesia's vision to build a standardized global trade infrastructure, QRIS has now expanded cross-border transaction capabilities. QRIS is currently usable in Thailand, Singapore, and Malaysia, with plans to expand to South Korea, the United Arab Emirates, Japan, and India in the near future. This expansion not only facilitates trade and tourism but also supports macroeconomic stability through bilateral Local Currency Transactions (LCT) (Badrawani, 2025).

Impact of QRIS on People's Shopping Habits

QRIS has significantly influenced people's shopping behavior, especially in terms of ease and transaction security. Most users report that QRIS makes digital transactions easier and more convenient, eliminating the need to carry cash or credit/debit cards. This makes the transaction process much faster and reduces the risk of losing money. The ability to pay by simply scanning a QR code has made the shopping experience more efficient and seamless (Yudiana, 2023).

One of the most noticeable psychological effects of using QRIS is the reduction of the "pain of paying." Digital payments, including QRIS, can significantly reduce the psychological discomfort often associated with paying in cash, where there's a tangible feeling of money changing hands. With low transaction fees, quick processing, guaranteed security, and

emotional distance from physical money, the payment experience becomes more enjoyable. This can embolden consumers to make purchases even for expensive items since there is no "physical release" of money felt (Lestari & Abidin, 2024).

However, this reduction in the pain of paying also has the potential to encourage more consumptive behavior and impulsive shopping. With an extremely easy payment process and the invisibility of money, consumers tend to shop more impulsively without considering needs or budgeting. The convenience of transactions and various digital incentives, such as promotions or discounts, can drive spontaneous consumption behavior and reduce awareness of the importance of saving. Studies show that students, for instance, admit to becoming more consumptive due to the convenience of QRIS. Moreover, a hedonistic lifestyle has been found to have a positive and significant correlation with the decision to use QRIS, indicating that the ease of digital payment can support desire-driven rather than need-based spending habits (Lestari & Abidin, 2024).

QRIS has also led to significant changes in shopping patterns, with an increase in online shopping frequency compared to traditional methods (Lestari & Abidin, 2024). Around 77% of survey respondents preferred online shopping due to its speed, attractive offers, and 24/7 availability. This shift is also evident in the types of products purchased, where QRIS users tend to buy technological products such as mobile credit, internet data, and electronic devices through online platforms. QRIS features such as the "split bill" function, which is especially relevant for younger users, further promote widespread usage (spesolution, 2024).

Impact of QRIS on People's Saving Patterns

The relationship between QRIS usage and people's saving habits is a compelling topic. While e-wallets and QRIS offer convenience in transactions, they may also pose challenges to personal financial management. This could lead to increased spending and potentially reduce the intention to save. With easy access to funds and fast payment processes, the discipline required to delay spending in favor of saving can be disrupted (Yudiana, 2023).

Some studies show varying and sometimes contradictory results regarding QRIS's influence on saving behavior. One study found that the use of QRIS, income, and savings had no significant impact on consumption, with lifestyle factors being the most influential. This indicates that saving decisions may be more affected by awareness of future needs and spending priorities than merely by the availability of digital payment methods. However, other research suggests that digital payments can negatively impact MSME income, implying the potential for consumer overspending that affects purchasing power for MSME goods (Ahmad, 2023).

Financial literacy is crucial in this context. With adequate digital financial knowledge, e-wallets can become efficient tools for financial management. Individuals with strong financial literacy are better able to use digital payment features to track spending, create budgets, and manage their funds effectively. Without sufficient knowledge, the ease of QRIS transactions can lower awareness of saving importance and promote impulsive consumption without long-term planning (Rahayu et al., 2024).

Nevertheless, QRIS also offers features that support better financial management. The system allows for automatic transaction recording and real-time monitoring, which can help users track their spending. Research shows that if users routinely review their QRIS transaction histories, they can become more disciplined and financially aware. However, many people, including students, do not actively record their expenses, indicating a lack of awareness about financial tracking even though the tools are available (Lutfi et al., 2025). This emphasizes that having technology alone is not enough awareness and proactive usage habits are also necessary to fully realize the financial management benefits.

The Role of Financial Literacy in Moderating the Impact of QRIS

The gap between financial inclusion and financial literacy in Indonesia is a significant issue affecting how people interact with digital payment instruments like QRIS. Recent data shows that in 2024, Indonesia's financial literacy index reached 65.34%, while the financial inclusion index stood at 75.02%. This gap is concerning, as low financial literacy can lead to poor financial planning and impulsive shopping habits, even as the ease of digital transactions continues to rise. Similar gaps in basic financial skills have also been documented in international studies (BPS, 2024).

Financial literacy has proven vital in shaping healthy financial habits in the digital age. Numerous studies show that financial literacy positively affects transactional activity and financial management behavior (Rahayu et al., 2024). This means individuals with good financial understanding tend to make wiser transaction decisions and manage their funds more effectively. With proper literacy, individuals can use financial technology (fintech) wisely, maximizing benefits while minimizing risks (BPS, 2024).

The positive influence of financial literacy is also evident in the MSME sector. The combination of improved financial literacy and QRIS adoption positively impacts MSME performance. It is crucial for MSMEs to use QRIS not only as a payment tool but also as a means to enhance operational efficiency, expand customer bases, and ultimately improve business competitiveness (Indriani & Rahman, 2024). With stronger financial understanding, MSMEs can manage cash flows recorded via QRIS to more easily access financing, which is a key driver of growth (Mashabi & Wasiaturrahma, 2021).

However, digital literacy challenges still hinder the full utilization of QRIS. Some users, particularly students, still struggle with technological literacy, especially in understanding how to link QRIS with their payment applications. Infrastructure issues and unstable internet connections in some regions also pose barriers that can disrupt QRIS transaction smoothness (Andi Riski Firnanda et al., 2024).

To overcome these challenges, collaboration between Bank Indonesia, OJK, the government, and communities is essential to improve financial literacy. Initiatives such as integrating financial literacy into the education curriculum (e.g., through the "Kurikulum Merdeka") and BI-Class programs in collaboration with universities are important steps in building a strong foundation of financial literacy from an early age. These joint efforts are expected to reduce the gap between inclusion and literacy, ensuring that the ease of digital

payments is accompanied by the capacity to manage finances wisely (Muhammad Trianda, 2025).

QRIS and Financial Behavior in the Context of Industry 5.0

Understanding the integration of QRIS and its impact on financial behavior must be done within the broader context of the Industry 5.0 era. This era emphasizes human centrality, sustainability, and addressing social challenges. The goal of Industry 5.0 is to create harmonious collaboration between humans and machines, enhancing human capabilities and quality of life (Rahmawati et al., 2021). QRIS, by simplifying transactions and increasing accessibility to payment methods, aligns with these goals by making financial processes more user-friendly and accessible. QRIS features, such as fast transactions and ease of use, clearly support individual financial comfort. However, there is a risk of increased consumptive behavior triggered by this convenience, which could hinder the primary human goal of improved financial well-being. If this convenience leads to overspending, efforts to enhance the quality of life through technology could be undermined (spesolution, 2024).

Sustainability is also a key pillar of Industry 5.0, aiming to build an economically, socially, and environmentally sustainable society. QRIS contributes to economic sustainability by promoting digital economic growth and financial inclusion, especially for MSMEs. Through digitalization of MSME transactions via QRIS, financial record-keeping improves, which in turn facilitates access to financing and supports sustainable business growth (Purnama Sari, 2024). However, if digital payments encourage excessive consumption, it could undermine social and environmental sustainability by leading to unnecessary resource use and personal debt problems that threaten social stability (Rame et al., 2023).

QRIS also helps address social challenges one of the core goals of Industry 5.0. QRIS provides access to the digital ecosystem for unbanked populations and MSMEs, and facilitates cross-border transactions, supporting the trade and tourism sectors. All these contribute to greater economic and social connectivity. However, the gap between financial inclusion and literacy remains a challenge that QRIS alone cannot fully resolve. This gap could lead to financial vulnerability, especially among younger generations dealing with online loans, contradicting Industry 5.0's goals of addressing social issues (Badrawani, 2025).

The widespread adoption of QRIS supports the concept of "full connectivity" in Society 5.0, which links various payment methods and promotes interoperability among service providers. With an existing universal standard, QRIS aims to create inclusivity by ensuring accessibility for various users and merchants, ultimately expanding the reach of digital financial services across all layers of society. This inclusivity is vital to ensure everyone can benefit from technology (Rahmawati et al., 2021).

Despite many opportunities, Indonesia still faces numerous challenges in realizing the vision of Industry 5.0, which affects the optimal utilization of QRIS for public benefit. These challenges include underdeveloped information technology infrastructure, limited internet access in some areas, and the need to improve digital skills among the workforce. Rapid technological developments (such as QRIS Tap) require continuous efforts so that the public

can understand and adapt well, ensuring technology empowers individuals without creating new disparities (Muhammad Trianda, 2025).

CONCLUSIONS

QRIS has emerged as a transformative digital payment tool in Indonesia, significantly adopted by MSMEs and widely used by the public due to its convenience, speed, and security. While it promotes a cashless lifestyle and improves financial inclusion, its ease of use also raises risks of impulsive spending and reduced saving motivation. Financial literacy plays a crucial role in moderating these effects, enabling users to manage spending wisely and avoid financial vulnerability. In line with *Industry 5.0's* human-centric and sustainable vision, QRIS supports MSME empowerment and inclusive finance. To optimize its impact, regulators should enhance QRIS features, intensify financial literacy programs, and bridge the gap between access and understanding. Financial institutions should offer user-friendly budgeting tools and educational content within apps, while the public must adopt disciplined financial habits. Future studies should explore QRIS's long-term effects on financial behavior and assess the effectiveness of literacy interventions.

REFERENCES

- Ahmad, S. (2023). Transaksi digital dengan pemanfaatan QRIS sebagai alat pembayaran pada UMKM Desa Kutawargi. *Jurnal Pengabdian Mahasiswa*, 2(1), 2983–2990.
- Amane, A. P. O. (2020). *Metodologi penelitian kualitatif*. Rake Sarasin.
- Andhika, P. (2025, March). 38,1 juta UMKM sudah pakai QRIS hingga triwulan I 2025. *Media Indonesia*. <https://mediaindonesia.com/ekonomi/768994/381-juta-umkm-sudah-pakai-qr-is-hingga-triwulan-i-2025>
- Andi Riski Firnanda, Putri Sulisti, & Hildawati. (2024). Dampak QRIS terhadap kebiasaan belanja mahasiswa di era digital: Studi kasus mahasiswa STIA Lancang Kuning Dumai. *MENAWAN: Jurnal Riset dan Publikasi Ilmu Ekonomi*, 3(1), 110–119. <https://doi.org/10.61132/menawan.v3i1.1122>
- Andrew, S. (2023). CEMUMUAH: Manfaat transaksi QRIS bagi pelanggan dan merchant. *Kompasiana*. <https://www.kompasiana.com/andrew92373/64c8bbd54addee27d7389c12/cemumua-h-manfaat-transaksi-qr-is-bagi-pelanggan-dan-merchant?page=all#section1>
- Badrawani, W. (2025). Digital payment policy impact analysis on the intention to use QRIS (quick response code Indonesian standard) during COVID-19 pandemic. *The Central Bank of Indonesia*, 1–23.
- Bank Indonesia. (2020). QRIS, satu QR code untuk semua pembayaran. <https://www.bi.go.id/en/fungsi-utama/sistem-pembayaran/ritel/kanal-layanan/qr-is/default.aspx>
- BPS. (2024). Indeks literasi keuangan penduduk Indonesia sebesar 65,34 persen. *Badan Pusat Statistik Kabupaten Pati*. <https://patikab.bps.go.id/id/news/2024/08/01/746/indeks-literasi-keuangan-penduduk-indonesia-sebesar-65-34-persen.html>

- Budi, E. (2023). BI: QRIS selamatkan Indonesia dari krisis saat pandemi Covid-19. *Media Indonesia*. https://mediaindonesia.com/ekonomi/634050/bi-qr-is-selamatkan-indonesia-dari-krisis-saat-pandemi-covid-19#goog_rewarded
- Dyah Sekarsari, K. A., Sulistyaningrum I, C. D., & Subarno, A. (2022). Optimalisasi penerapan quick response code Indonesia standard (QRIS) pada merchant di wilayah Surakarta. *JIKAP (Jurnal Informasi dan Komunikasi Administrasi Perkantoran)*, 5(2), 42. <https://doi.org/10.20961/jikap.v5i2.51487>
- Fahimah, H. M., & Harsono, M. (2023). Literature review of the evolution of payment system paradigms: From cash to cashless with digital payment. *Social, Humanities, and Educational Studies (SHES): Conference Series*, 6(3), 11–18. <https://doi.org/10.20961/shes.v6i3.81553>
- Gultom, M. S., Salsabila, H., & Amri, A. (2023). Preferensi generasi milenial dalam menggunakan QRIS sebagai alat pembayaran digital. *Jurnal Inovasi Pendidikan Ekonomi (JIPE)*, 13(1), 19. <https://doi.org/10.24036/011194030>
- Indriani, S., & Rahman, Z. D. (2024). Literasi keuangan, pemanfaatan QRIS dan kinerja usaha mikro dan kecil (UMK) di Jakarta Selatan. *Jurnal Akuntansi, Bisnis dan Ekonomi Indonesia*, 3(2), 53–63. <https://akuntansi.pnp.ac.id/jabei/index.php/jabei/article/view/245>
- Kumparan. (2024). QRIS sudah digunakan di 35,1 juta merchant, 90 persen UMKM. *Kumparan*. <https://kumparan.com/kumparanbisnis/qr-is-sudah-digunakan-di-35-1-juta-merchant-90-persen-umkm-2485WtMzpEC/full>
- Larasati, G. A., & Maria, N. S. B. (2023). Pengaruh sistem pembayaran non tunai terhadap PDB Indonesia tahun 2011-2021. *Diponegoro Journal of Economics*, 12(2), 21–32. <https://doi.org/10.14710/djoe.37683>
- Lestari, P. I. A., & Abidin, F. I. N. (2024). Dampak adopsi QRIS terhadap pendidikan dan pendapatan gaya hidup hedonis di Indonesia. *Jurnal Ekonomi, Manajemen, Bisnis dan Akuntansi Review*, 4(1), 21. <https://doi.org/10.53697/emba.v4i1.1708>
- Lutfi, A., Handayani, A. A., Izzati, B. N., Khoiruninsa, & Zalwa, L. N. (2025). Penggunaan sistem pembayaran QRIS dalam praktik pengelolaan keuangan mahasiswa perantauan. *Maeswara: Jurnal Riset Ilmu Manajemen dan Kewirausahaan*, 3(3), 79–96.
- Mashabi, M., & Wasiaturrahma, W. (2021). Electronic based payment systems and economic growth in Indonesia. *Jurnal Ilmu Ekonomi Terapan*, 6(1), 97. <https://doi.org/10.20473/jiet.v6i1.26287>
- Muhammad Trianda, K. (2025). QRIS tap: Menjaga literasi untuk mendukung inklusi keuangan. *CNBC Indonesia*. <https://www.cnbcindonesia.com/opini/20250603105542-14-638087/qr-is-tap-menjaga-literasi-untuk-mendukung-inklusi-keuangan>
- Purnama Sari, I. (2024). Adoption of QRIS (quick response code Indonesian standard) through a strategy to increase the financial literacy of UMKM players in the city of Solo. *Indonesian Journal of Interdisciplinary Research in Science and Technology (MARCOPOLO)*, 2(6), 931–942. <https://journal.formosapublisher.org/index.php/marcopolo>
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- Rahayu, D. S., Nugraha, G., & Okte, M. R. M. (2024). Literasi keuangan dan fintech: Membentuk perilaku keuangan mahasiswa di Kabupaten Majalengka. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (MEA)*, 8(3), 3032–3048. <https://doi.org/10.31955/mea.v8i3.4842>
- Rahmawati, M., Ruslan, A., & Bandarsyah, D. (2021). The era of Society 5.0 as the unification of humans and technology: A literature review on materialism and existentialism. *Jurnal Sosiologi Dialektika*, 16(2), 151. <https://doi.org/10.20473/jsd.v16i2.2021.151-162>
- Rame, R., Purwanto, & Sudarno. (2023). Global context of Industry 5.0: Current trends and challenges in Indonesia. *Jurnal Riset Teknologi Pencegahan Pencemaran Industri*, 14(3), 21–32. <https://doi.org/10.21771/jrtppi.2023.v14.no3.p21-32>
- Rizkiyah, K., Nurmayanti, L., Macdhy, R. D. N., & Yusuf, A. (2021). Pengaruh digital payment terhadap perilaku konsumen pengguna platform digital payment OVO. *Jurnal Ilmiah Manajemen*, 16(1), 107–126.
- spesolution. (2024). Pengaruh QRIS terhadap pain of paying dan mendorong transaksi lebih cepat. *Spesolution*. <https://www.spesolution.com/post/pengaruh-qr>
- Yudiana, A. A. (2023). Pengaruh penggunaan QRIS, pendapatan, tabungan dan gaya hidup terhadap perilaku konsumtif. *Contemporary Studies in Economic, Finance and Banking*, 2(4), 739–746. <https://doi.org/10.21776/csefb.2023.02.4.15>



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