



DIGITAL PAYMENT SYSTEM TRANSFORMATION FOR MSMEs: A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

This study aims to analyze the development of digital payment systems implemented by MSMEs and identify factors influencing the success of digital payment system transformation in MSMEs based on a systematic literature review. This study uses a descriptive exploratory approach using a literature review approach or library research, namely referring to various literature, such as books, dissertations, scientific journals and the internet. The results of the literature review indicate that the development of digital payment systems in Indonesia has progressed rapidly through the transformation of cash to non-cash payments, particularly with the implementation of QRIS, which supports the creation of an inclusive digital economic ecosystem. In addition, the success of digital payment system transformation in MSMEs is influenced by internal factors, such as ease of use, transaction speed, system security, and digital literacy of business actors, as well as external factors, including digital infrastructure support, government policies, and digital technology developments. The synergy of these factors makes digital payment systems an important instrument in increasing the efficiency, competitiveness, and sustainability of MSMEs in the digital era.

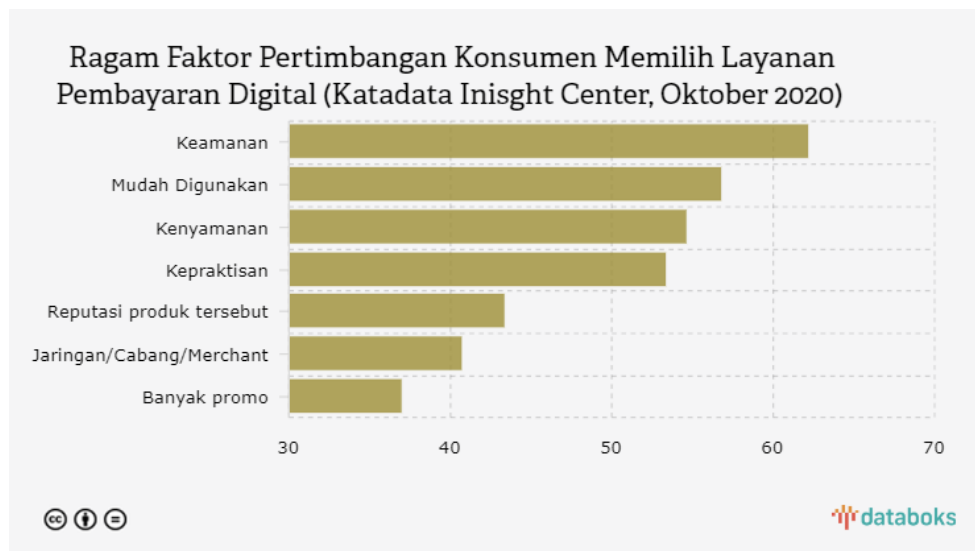
Keywords : Digital Payments, MSMEs, Systematic Literature Review

INTRODUCTION

Amidst increasingly competitive global economic developments, the role of young entrepreneurs is becoming increasingly crucial in driving economic growth, innovation, and creating new jobs. Young entrepreneurs are often considered more flexible, adaptive, and creative in facing the challenges of the modern market. In today's digital era, access to technology and information has opened up significant opportunities for young people to start businesses and develop innovative ideas.

The development of digital technology has brought significant changes to various aspects of life, including financial transaction systems. One rapidly developing innovation is digital payments, which allow people to conduct transactions without using cash. The presence of various platforms such as GoPay, OVO, DANA, ShopeePay, and QRIS has simplified the buying and selling process, both online and offline. For Micro, Small, and Medium Enterprises (MSMEs), digital payment systems are expected to improve transaction efficiency, expand market reach, and expedite customer service.

Based on a 2020 survey by the Katadata Insight Center, several key factors are considered by consumers when choosing a digital payment service. Security ranks highest, with a consideration rate of around 65%, followed by ease of use (60%), convenience (55%), and practicality (50%). Meanwhile, factors such as product reputation, merchant network, and the number of promotions ranked lower. This data indicates that security and convenience are consumers' top priorities when using digital payment services. The data from the 2020 survey by the Katadata Insight Center are as follows:



Source: databoks.katadata.co.id

Figure 1. Various Factors Consumers Consider When Choosing Digital Payment Services

This phenomenon illustrates that the public is increasingly open to digital payment systems, but remains concerned about their security and reliability. For MSMEs, this presents both an opportunity and a challenge. On the one hand, adopting digital payments can increase business competitiveness and efficiency. However, on the other hand, various challenges remain in their implementation. (Databoks, 2020)

Common issues include low digital literacy and transaction security among MSMEs. Many businesses lack understanding of how to manage and secure digital accounts, leaving them vulnerable to fraud or transaction errors. Furthermore, limited technological infrastructure, such as unstable internet connections, particularly in rural areas, hinders the optimal implementation of digital payments.

Another issue concerns transaction fees and platform policies. Some service providers still impose administrative fees, which are considered quite burdensome for small businesses with thin profit margins. On the consumer side, there remains low trust in digital systems, especially among those accustomed to using cash. This situation has led some customers to be reluctant to use digital payment methods when transacting with MSMEs.

From the data above, this is a challenge for the millennial generation in realizing it and should not be an obstacle. However, research by Budiyanto & Effendy

(2020) shows that current efforts still face obstacles, including, "Limited business facilities and infrastructure, particularly related to technological tools. Most MSMEs use rudimentary technology, making it difficult to compete in terms of quality and quantity."

In today's competitive era, the millennial generation needs to master technological developments, including in terms of online promotion in business competition, as shown in research conducted by Effendy & Sunarsi, (2020). "Online promotion is more effective marketing through social media, compared to promotion through electronic media and print media." As emphasized in the research by Effendy, et al. (2025) that "The use of social media such as WhatsApp, Instagram, and TikTok has become an important tool in marketing products and building brand image."

From the problems above, it becomes an opportunity for the millennial generation to face the challenges of business competition in the current competitive era, there is no word of giving up for the millennial generation in realizing a business that continues to exist and win the competition. Therefore, to overcome these problems, research is needed on "Digital Payment System Transformation for MSMEs: A Systematic Literature Review."

LITERATURE REVIEW

1. Understanding Digital Payments

According to Fachrizi et al. (2021), a digital or electronic payment system is defined as "a payment system that allows individuals to pay for various transactions, check balances, and transfer funds instantly, originating not only from banks but also from payment service providers."

Furthermore, digital payment systems are also considered capable of providing convenience and various benefits for users in conducting financial transactions. This is in line with Ardianysah's opinion in Rahmayanti (2023), which states that, "Digital payment methods are considered easier, simpler, and provide benefits if service providers offer discounts on certain payments. Digital payments are a form of technological innovation in financial services that can produce business models, applications, processes, or products by providing financial services." (Ardianysah in Rahmayanti, 2023).

Therefore, according to the author, a digital payment system is a technology-based transaction tool that allows people to make payments quickly, securely, and efficiently without relying on cash. In addition to facilitating transactions, digital payment systems also play a role in supporting digital transformation, improving operational efficiency, expanding market access, and strengthening the competitiveness of MSMEs in the digital era.

2. Definition of MSMEs

The definition of MSMEs (Micro, Small and Medium Enterprises) in Effendy, et al. (2023) regarding the regulations of Law Number 20 of 2008 concerning Micro, Small and Medium Enterprises (MSMEs), is as follows:

a. Micro Enterprises and its criteria

A micro-enterprise is a productive business owned by an individual and/or a sole proprietorship that meets the criteria for a micro-enterprise. The criteria are: "Having a maximum net worth of Rp. 50,000,000.00, excluding land and buildings where the business is located, or having a maximum annual sales turnover of Rp. 300,000,000.00."

b. Small business and its criteria

A small business is a stand-alone productive economic enterprise, carried out by an individual or business entity that is not a subsidiary or branch of a company owned, controlled, or part of either directly or indirectly. And the criteria are "Having net assets of more than Rp. 50,000,000.00 up to a maximum of Rp. 500,000,000.00 excluding land and buildings where the business is located or having annual sales results of more than Rp. 300,000,000.00 up to a maximum of Rp. 2,500,000,000.00."

c. Medium Enterprises and its criteria

Medium Enterprises are independent productive economic enterprises, carried out by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or are part of either directly or indirectly. And the criteria are "Having net assets of more than Rp. 500,000,000.00 up to a maximum of Rp. 10,000,000,000.00 excluding land and buildings for business premises or having annual sales results of more than Rp. 2,500,000,000.00 up to a maximum of Rp. 50,000,000,000.00." (Putri in Effendy, et al. (2024)

METHOD

1. Research methods

This research uses an exploratory descriptive approach to examine "Digital Payment System Transformation for MSMEs: A Systematic Literature Review." This research was compiled by applying the literature review method or library study as a basis for obtaining and analyzing various relevant scientific sources. In Sudaryanto & Wijayanti (2013), that, "This conceptual approach is carried out by referring to several sources, such as books, scientific journals, and the internet. All existing descriptions of ideas are combined in a single framework of thought.

Furthermore, according to Cooper and Schindler (2014), "Research that critically examines or reviews knowledge, ideas, or findings contained in the body of academic-oriented literature, and formulates its theoretical and methodological contributions to a particular topic."

Based on this opinion, this study utilizes various relevant scientific references to obtain a comprehensive understanding of the transformation of digital payment systems for MSMEs and compiles a synthesis of research results as a basis for answering research objectives.

2. Data Analysis Methods

The data analysis used in this study, using the literature review method, includes a comprehensive description of how to analyze the researched concept. The approach used in analyzing this data is the exposition method, which is "by

presenting existing data and facts so that correlations can be found between them." (Ulhaq et al., 2020)

3. SLiterature Search Strategy

The successor publication article order on Google, Google Scholar, Scopus Preview and Research Gate using selected keywords, namely "Digital Payment System Transformation for MSMEs" in English and Indonesian.

As for the meaning Groups or journals that meet the inclusion and exclusion criteria are selected for further analysis. This literature review utilizes literature from the last 10 years, from 2016 to 2025, accessible in full-text PDF format and scholarly (peer-reviewed journals). The journals reviewed are research journal articles in Indonesian and English.

RESEARCH RESULTS AND DISCUSSION

Based on the results of a literature review of various previous studies on digital payment systems in MSMEs, two main findings were obtained: (1) the development of digital payment systems implemented by MSMEs, and (2) factors influencing the success of digital payment system transformation in MSMEs. Both findings are the result of a synthesis of various published studies.

1. The Development of Digital Payment Systems Implemented by MSMEs Based on a Systematic Literature Review

Research shows that the development of digital payment systems in MSMEs has experienced rapid growth in line with the development of digital technology and the increasing public demand for fast, easy, and secure transactions. Various studies have shown that digital payment systems have become part of the digital transformation, increasing transaction efficiency, expanding access to financial services, and supporting MSME competitiveness in the digital economy era.

As stated by Al Umar (2025), "The development of digital payment systems in Indonesia has shown significant progress in line with the increasing public demand for ease and efficiency in transactions. The transformation from cash to cashless payment systems through the QRIS (Quick Response Code Indonesian Standard) innovation has been a strategic step in building an inclusive digital economic ecosystem."

This finding is reinforced by research by Maulidah, et al. (2024), which states that "The shift from traditional to digital payments reflects a major transformation in how people manage and interact with money. In the era of the industrial revolution 4.0, the development of digital technologies such as the Internet of Things (IoT), artificial intelligence (AI), and mobile computing has penetrated the payment sector, bringing society into the era of digital payments. Mobile banking, for example, allows individuals to conduct financial transactions anytime and anywhere through their mobile devices. The Quick Response Code Indonesia Standard (QRIS) is a symbol of the shift to digital payments by simplifying the transaction process through QR codes that can be accessed by various payment applications."

Furthermore, the research results of Ningsih, et al. (2024) explain that "The presence of digital payments in Indonesia provides convenience and security in

transactions and supports the growth of the national digital financial economy. Bank Indonesia continues to work to develop a payment system that can accommodate digital changes while still maintaining security and consumer protection."

Based on the synthesis of various studies, it is clear that the development of digital payment systems is not only characterized by the increasing use of QRIS and digital payment services, but also demonstrates a transformation in the transaction behavior of the public and MSMEs. Digital payment systems provide convenience, efficiency, and security, while supporting the development of an increasingly inclusive digital economic ecosystem.

2. Factors Influencing the Success of Digital Payment System Transformation in MSMEs Based on a Systematic Literature Review

Results show that the success of digital payment system transformation in MSMEs is influenced by various factors, both internal and external. Various studies explain that the success of digital payment implementation depends not only on the technology used but also on business readiness, environmental support, and the ability to utilize digital technology.

According to Siregar (2024), "Factors supporting MSMEs' use of digital payments include making it easier for merchants to conduct payment transactions with both consumers and suppliers, ensuring better security, having the payment process recorded immediately, and having the funds transferred securely into the merchant's account, as well as supporting the younger generation."

In addition, Nasution, et al. (2025) stated that "The success of QRIS in creating a digital payment era in Medan City is influenced by a combination of internal and external factors. Internal factors include ease of use, transaction speed, and system security that encourage active adoption by MSMEs and consumers. External factors include digital infrastructure, community literacy, local economic characteristics, and policy support that ensure optimal implementation. This means that QRIS is not only an alternative payment method but has become a key instrument in the digital payment ecosystem."

Other research findings also support these findings. Maimuna et al. (2024) stated that "Digital technologies, such as e-commerce platforms, social media, and fintech, are key drivers enabling MSMEs to access broader markets, improve operational efficiency, and gain more flexible access to capital. Digital literacy plays a crucial role in determining the success of this transformation, as more tech-savvy MSMEs can more easily adapt to market developments and optimally capitalize on digital opportunities."

Based on the synthesis of various studies, it can be concluded that the success of digital payment system transformation in MSMEs is influenced by ease of use of technology, payment system security, transaction speed, digital infrastructure support, digital literacy among business actors, digital technology utilization, and government policy support. These factors complement each other in encouraging the sustainable adoption of digital payments, thereby improving operational

efficiency, expanding market access, and supporting MSME success in the digital era.

CONCLUSION

It can be concluded that the development of digital payment systems in Indonesia has progressed rapidly in line with the growing public demand for easy, efficient, and secure transactions. The transformation from cash to cashless payment systems, particularly through the implementation of QRIS, is a strategic step in building an inclusive digital economic ecosystem. Furthermore, Bank Indonesia's active support for the development of digital payment systems, while maintaining a strong emphasis on security and consumer protection, plays a crucial role in driving the growth of the national digital economy and finance.

Based on the results of the Systematic Literature Review of the three references, it can be concluded that the success of digital payment system transformation in MSMEs is influenced by a combination of internal and external factors. Internal factors include ease of use, transaction speed, system security, and the level of digital literacy and readiness of MSMEs, which encourage active adoption of digital payments. Meanwhile, external factors include digital infrastructure support, government policies, local economic characteristics, and developments in digital technologies such as fintech and e-commerce, which open market access and capital. The synergy of these factors makes digital payment systems, particularly QRIS, not only an alternative transaction method but also a key instrument for increasing the efficiency, competitiveness, and sustainability of MSMEs.

REFERENCES

- Al Umar, A. U. A. (2025). QRIS sebagai Sistem Pembayaran Digital untuk Meningkatkan Akses Keuangan Masyarakat di Indonesia. *Waralaba: Journal Of Economics and Business*, 2(2).
- Budiyanto, A., & Effendy, A. A. (2020). Analisa Kebijakan Pemerintah Kota Tangerang Selatan terhadap Pemberdayaan Koperasi dan UMKM dan Dampaknya terhadap Pemerataan Kesejahteraan Masyarakat. *Jurnal Mandiri: Ilmu Pengetahuan, Seni, Dan Teknologi*, 4(1), 80-93.
- Cooper, Donald R., dan Pamela, S. Schindler. (2014). *“Metode Riset Bisnis”*. Volume 1. Edisi 12 Jakarta: PT Media Global Edikasi.
- Databoks, 2020. *Keamanan, Faktor Pertimbangan Utama Konsumen Memilih Layanan Pembayaran Digital*.
<https://databoks.katadata.co.id/keuangan/statistik/d2441f4233fae02/keamanan-faktor-pertimbangan-utama-konsumen-memilih-layanan-pembayaran-digital>.
diakses pada Januari 2026
- Effendy, A. A., Mustofa, M. A., Basuni, R. R., Nurjaya, N., & Sunarsi, D. (2023). Determinants of Small medium Micro business empowerment: Systemic literature review. *International Journal of Artificial Intelligence Research*, 6(1.1).
- Effendy, A. A., Sudiarto, S., Pratama, G. D., Wahyudi, Y., & Sunarsi, D. (2024). Determinan Keberhasilan Usaha Mikro Kecil Menengah Berbasis Ekonomi Kreatif: Tinjauan Literatur Sistematis. *Jurnal Ilmiah M-Progress*, 14(2), 311-320.

- Effendy, A. A., Sunarsi, D., Supriyatna, W., Masriah, I., & Nurhadi, A. (2025). Enhancing MSME Competitiveness In The Creative Industry Through Human Resources Development In South Tangerang. *Jurnal Manajemen Industri dan Logistik*, 9(2), 138-151.
- Effendy, A. A., & Sunarsi, D. (2020). *Persepsi Mahasiswa Terhadap Kemampuan Dalam Mendirikan UMKM Dan Efektivitas Promosi Melalui Online Di Kota Tangerang Selatan*. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, & Akuntansi)*, 4(3), 702-714.
- Fachrizi, A. R., Purwanto, & Bustaram, I. (2021). Pengaruh Financial Technology Terhadap Kepuasan Keuangan Pada UMKM Di Kabupaten Pamekasan . *Jurnal Ekonomi, Keuangan dan Bisnis*, 1-8.
- Maimuna, F. F., Roroa, N. A. F., Misrah, M., Oktavianty, O., & Agit, A. (2024, October). Transformasi digital dalam kewirausahaan: Analisis faktor penghambat dan pendorong perkembangan ekonomi digital. In *Prosiding Seminar Nasional Pembangunan Ekonomi Berkelanjutan Dan Riset Ilmu Sosial* (Vol. 1, No. 1, pp. 187-198).
- Maulidah, A. R., Astuti, R. P., Nisa, K., Erlangga, W., & Hambarwati, E. (2024). Perkembangan sistem pembayaran digital: Pada era revolusi industri 4.0 di Indonesia. *Jurnal Ekonomi Dan Bisnis Digital*, 1(4), 798-803.
- Nasution, M. F., Yusuf, N. A. F., & Novitasari, N. (2025). Analisis Faktor Keberhasilan Qris Dalam Menciptakan Era Pembayaran Digital Di Kota Medan. *Journal Of Economic And Business Advancement*, 1(2), 32-41.
- Ningsih, L. W., Astuti, R. P., Holisah, S. N., Amin, M. S., & Yunus, M. (2024). Perkembangan sistem pembayaran di Indonesia: Kebijakan dan peran Bank Indonesia. *Jurnal Ekonomi Dan Bisnis Digital*, 1(4), 697-702.
- Rahmayanti, N. P. (2023). Pengaruh Marketplace dan Pembayaran Digital Terhadap Tingkat Penjualan UMKM Di Kota Banjarmasin. *Al-Kalam: Jurnal Komunikasi, Bisnis dan Manajemen*, 10(1), 28-36.
- Siregar, S. E. (2024). *Faktor-faktor yang memengaruhi UMKM menggunakan pembayaran digital* (Doctoral dissertation, UIN Syekh Ali Hasan Ahmad Addary Padangsidimpuan).
- Ulhaq, Zulvikar Syambani dan Mayu Rahmayanti. (2020). "Panduan Penulisan Skripsi Literatur Review." Malang: Fakultas Kedokteran UIN Maulana Malik Ibrahim