

UTILIZATION OF DIGITALIZATION FOR MSME DEVELOPMENT AS A PILLAR OF ECONOMIC DEVELOPMENT

Diwayana Putri Nasution^{1*}, Hilmi², Rizki Ramadhan³, Feri Susilawati⁴, Rachmad Ikhsan⁵, Lia Nazliana Nasution⁶, Wahyu Indah Sari⁷
^{1.3.4.5}Politeknik Aceh, Indonesia

²Universitas Malikussaleh, Indonesia

^{6.7}Universitas Pembangunan Panca Budi, Indonesia

*Corresponding Author:

putri@politeknikaceh.ac.id

Abstract

The purpose of this study is to see the use of MSME digitalization to develop MSMEs as a pillar of economic development. Digitalization is very necessary in the global era, where human resources are required to be able to adapt to the development of digitalization. However, in reality, this has not happened comprehensively in various aspects of MSMEs. The reason behind this research is that many MSMEs still do not have adequate capabilities in terms of digitalization. The research method used is the literature review method and digitalization theory which explains the use of digitalization for the development of MSMEs. The results of the study show that the use of digitalization is very influential in increasing the competitiveness of MSMEs and their development. MSMEs also contribute optimally to economic development. The suggestion from this study is that training and development of digitalization capabilities are needed in an effort to increase the development of MSMEs as a pillar of Indonesia's development.

Keywords: MSMEs, Digitalization, Economic Development

1. Introduction

MSMEs have an important role in economic development. MSMEs are a very vital sector for the Indonesian economy. Based on data from the Ministry of Cooperatives and SMEs in 2022, MSMEs contribute around 61.07% to national GDP and absorb 97% of the workforce. MSMEs are the backbone of Indonesia's economy, contributing more than 60% to the Gross Domestic Product (GDP) and absorbing around 97% of the workforce (Ministry of Cooperatives and SMEs, 2022).

However, MSMEs still face various obstacles, such as limited market access, capital, and management capabilities. In the era of the industrial revolution 4.0, digitalization is the key to overcoming challenges. Along with the increasingly digital world, the adoption of digital technology and the use of digitalization have emerged as an important strategy to be a solution to this problem by strengthening the MSME sector and encouraging economic development in Indonesia. Digitalization not only makes it easier for MSMEs to market their products, but also improves operational efficiency and opens access to financing sources. Therefore, the development of Micro, Small, and Medium Enterprises has become an important focus of the Indonesian government in achieving economic growth and welfare.

Digitalization can open up opportunities in the development of MSMEs such as market expansion, increased operational efficiency, and access to financing. The results of the study show that the adoption of digital technology can increase the competitiveness of MSMEs and contribute significantly to national economic growth. Digitalization has become an integral part of business transformation in various sectors, including Micro,

Small, and Medium Enterprises (MSMEs). Digitalization has become a key element in business transformation, especially for Micro, Small, and Medium Enterprises (MSMEs). The COVID-19 pandemic has prompted many MSMEs to turn to digital platforms as a way to survive and thrive. This creates opportunities for innovation in business models and marketing (Wilestari et al., 2023).

With digitalization, MSMEs can significantly expand their market reach. The use of online platforms allows them to reach consumers in a variety of locations that were previously unreachable (Pramesworo et al., 2024). Digitalization supports increased efficiency in business processes, such as financial recording and inventory management, which were previously done manually. For example, businesses such as Sanfresh have successfully implemented a digital-based financial recording system that facilitates sales analysis (Harto et al., 2023).

However, the reality on the ground shows that only about 20% of MSMEs have adopted digital technology, mostly due to a lack of knowledge and skills among MSME actors. This indicates the need for training and competency improvement in the use of digital technologies. Many MSMEs face challenges related to internet quality and adequate technology accessibility. This can hinder their ability to operate effectively in the digital environment. With more and more businesses turning to digital, competition is becoming more intense. MSMEs need to continue to innovate and adapt to market trends to stay competitive (Arnu et al., 2024) (Wilestari et al., 2023) (Pramesworo et al., 2024).

Digitalization is an important step for MSMEs to survive and develop in this modern era. Despite significant challenges, the opportunities offered by digital transformation can help MSMEs improve their competitiveness and operational efficiency. Therefore, related research is needed in developing digitalization so that digitalization activities can develop optimally. This research was conducted with the aim of analyzing the use of digitalization in the development of MSMEs as a pillar of economic development.

2. Theoretical Background

2.1 MSMEs

MSMEs are one of the effective ways to reduce poverty and unemployment in Indonesia. MSMEs are recognized as a major contributor to national development, besides that they can also be a considerable job opening for workers in Indonesia who are in dire need of jobs in the midst of difficulties in getting jobs in the current era of globalization. MSMEs need to receive more attention from the government so that they can develop more in Indonesia.

2.2 Digitalization Theory

2.2.1 Technology readiness index (TRI)

The Technology Readiness Index (TRI) is a theory developed by Parasuraman in 2000. TRI is a method to measure a person's readiness to accept and use new technology. TRI uses four variables as a benchmark, namely: Optimism, Innovation, Discomfort, Insecurity.

Optimism. Many MSMEs see digitalization as an opportunity to improve efficiency and market access. For example, MSMEs in the fashion sector have leveraged e-commerce platforms to reach international customers, demonstrating confidence in the benefits of technology.

Innovating. MSMEs that have an innovative tendency are faster in adopting digital technology. For example, startups in the fintech sector such as OVO and DANA have changed the way financial transactions are conducted in Indonesia, followed by MSMEs that have begun to accept digital payments (Sutrisno & Widiastuti, 2022).

Discomfort. Discomfort is often felt by MSMEs related to the cost of implementation and the complexity of technology. For example, many MSMEs in the agricultural sector face challenges in adopting smart agricultural management systems that require initial training and investment (Rizki & Setiawan, 2023).

Insecurity. Doubts regarding data security and privacy can hinder the adoption of the technology. Many MSMEs in the health sector are still hesitant to use cloud-based management systems due to concerns about patient data security (Handayani & Nugroho, 2021).

2.2.2 Technology Adoption Model

TAM (Technology Acceptance Model) is an information system theory that explains how users accept and use new technologies. This model was developed by Fred Davis in 1989. The use of TAM-based digitalization is as follows:

Perception of ease of use. Technologies that are considered easy to use are adopted faster. MSMEs that adopt cloud-based point-of-sale (POS) systems find that ease of use and integration with other systems drives their adoption (Agus & Widodo, 2022).

Perception of benefits. Technologies that are perceived to provide tangible benefits are more likely to be adopted. For example, e-commerce applications such as Tokopedia and Bukalapak have helped MSMEs in the retail sector to increase sales and manage inventory more effectively (Prasetyo & Rahardjo, 2023).

3. Methods

This research uses a literature review approach with a qualitative method. The method used is a literature review by collecting data from various journals. Data analysis is carried out quantitatively and qualitatively, by presenting graphs to visualize the findings. The focus of the research is to analyze the impact of digitalization on the development of MSMEs and its contribution to economic development. The data is analyzed qualitatively to identify trends, benefits, and challenges in the adoption of digital technology by MSMEs.

4. Results and Discussion

4.1 Study on the Utilization of Digitalization for MSME Development

Based on literature studies, studies such as Benchmarking the MSME ecosystem in Indonesia found that the digital economy has a significant role in supporting the growth and competitiveness of MSMEs. (Putra et al., 2019). This study highlights the importance of encouraging digital transformation among MSMEs to improve their productivity, performance, and financial inclusion (Muditomo & Setyawati, 2022). Another study also investigated the interactive components of the digital MSME ecosystem for an inclusive digital economy in Indonesia. The study identifies important factors that contribute to the successful implementation of digitalization among MSMEs, such as policy support, digital infrastructure, and capacity building. (Putra et al., 2019).

According to research by Sari et al. (2023), MSMEs that utilize digital platforms have experienced an increase in sales of up to 40%. In addition, social media such as Instagram

and Facebook are also effective marketing tools to increase brand visibility. Digitalization allows MSMEs to reach a wider market through e-commerce platforms and social media.

Another study conducted by INDEF shows that in the past year, 50 of the total MSME respondents used the Shopee e-commerce application in running their businesses online. This indicates that half of the MSMEs in this survey are familiar with using e-commerce platforms to sell. In addition to Shopee, online sales places that are also widely used by MSMEs are Facebook Marketplace (33.46%), Instagram Shop (28.74%), and TikTok Shop (20.87%). Furthermore, there are 17.32% of MSMEs that sell online on food delivery service applications (Online Food Delivery).

Overall, the influence of digitalization for MSME actors who switch from offline businesses to online businesses (MSMEs in the Offline-Online category) has a positive influence. This positive influence is marked by an increase in the number of workers and the average annual turnover generated by MSMEs in the Offline-Online category after digitizing their business (INDEF, 2024).

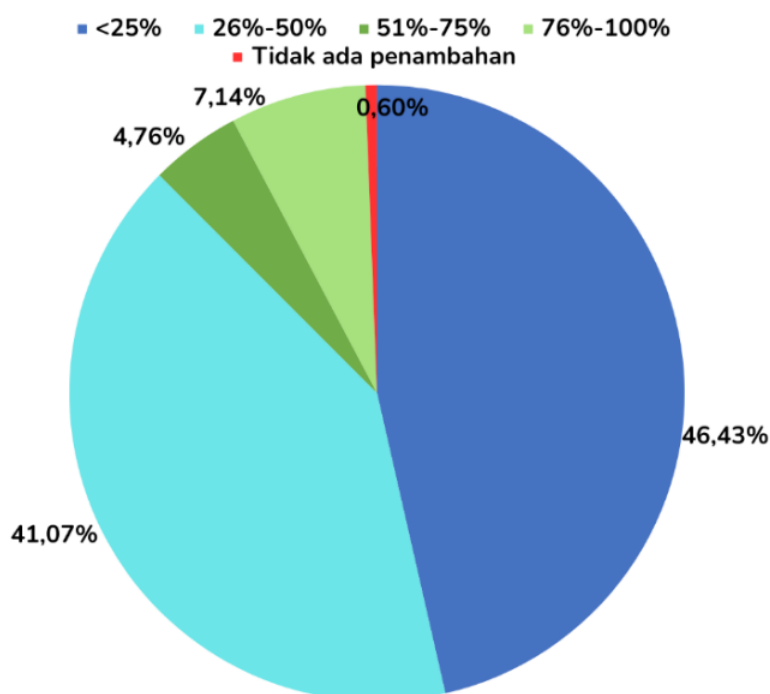


Figure 1. Increasing the Average Annual Turnover of MSME Groups through Digitalization

Source: INDEF, 2024

The figure above shows that after starting to digitize their business, 24.42% of MSME actors in the Offline-Online category admitted to experiencing an increase in the number of workers. In this context, of the 24.42% who experienced an increase in the workforce, 71.43% of them increased the workforce by up to 2 people. In terms of turnover, after using online platforms, 88.37% of MSME actors in the Offline-Online category stated that they experienced an increase in annual average turnover. A total of 66.28% of them experienced an increase in annual average turnover of up to 50% after using the online platform for their business.

Based on the literature review, it can be concluded that Digitalization provides many benefits for MSMEs, including increased market access through e-commerce, operational efficiency through digital payment systems, and better business management through the

use of applications. The increase in turnover value illustrates that digitalization has a positive impact on the development of MSMEs.

However, technology adoption still faces considerable challenges, especially for MSMEs located in remote areas with limited internet access and technological infrastructure. In addition, a lack of understanding of technology, concerns about the security of digital transactions, and limited capital to invest in technology are the main obstacles that must be overcome. The three main challenges of selling online in the results of this survey are in line with a study from Skare, et al (2022) which states that the main challenges of selling online are the lack of skilled labor, lack of experienced managers, and competitive abilities that must be qualified.

It is necessary to develop aspects to maximize the digitalization of MSMEs. The use of digitalization in the development of MSMEs is a strategic step that can increase business competitiveness and sustainability in the digital economy era. However, the success of the implementation of digital technology by MSMEs does not only depend on the availability of the technology itself, but also on factors that affect technology adoption, such as the Technology Acceptance Model (TAM) and Technology Readiness Index (TRI).

TAM explained that the success of technology adoption by MSMEs is greatly influenced by Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). If MSMEs feel the real benefits of digital technology in improving business efficiency and expanding the market, and feel that the technology is easy to use, then the adoption rate will be higher. Therefore, it is important for stakeholders such as governments, financial institutions, and technology companies to provide technology that is not only advanced but also user-friendly for MSMEs.

On the other hand, TRI identified that the readiness of MSMEs in adopting technology is influenced by four main dimensions, namely Optimism, Innovativeness, Discomfort, and Insecurity. MSMEs with a high level of optimism and innovation tend to be faster in adopting new technology, while inconvenience and insecurity factors towards technology can hinder the digitalization process. Therefore, an approach that focuses on increasing digital literacy, reducing psychological barriers, and increasing trust in technology security is very crucial in accelerating digital adoption by MSMEs.

This is in line with research conducted by INDEF which shows that based on the results of the overall survey, both in the Offline-Online MSME and Online MSME categories from the beginning, MSME actors revealed their main reasons for implementing business digitalization, including practicality in selling online (79.13%), wider exposure/traffic (72.83%), and the potential for faster business growth (69.69%). The success of selling online is inseparable from the role of digital platforms, including e-commerce. The majority of business actors stated that digital platforms increase sales (100%), strengthen customer relationships and loyalty (99.21%), and increase the number of customers (98.82%). This states that digital platforms are able to increase sales both from strengthening relationships and loyalty from existing customers and expanding the increase in the number of new customers (INDEF, 2024).

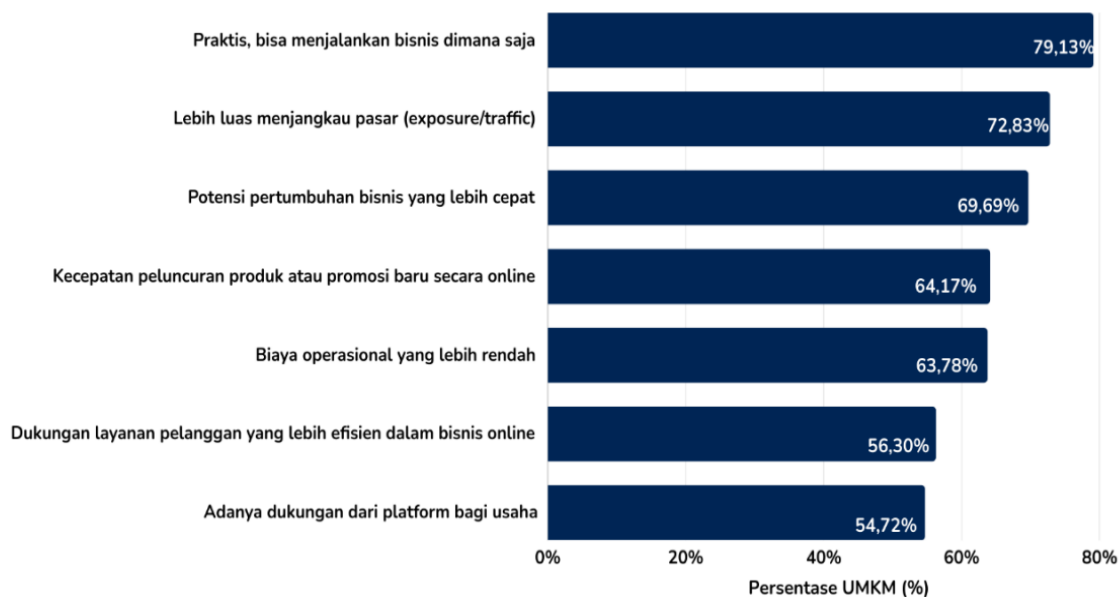


Figure 2. Top Reasons for Implementing Business Digitalization

Source: INDEF, 2024

Things that can be done to develop MSMEs through digitalization based on TRI and TAM are as follows:

Transformasi Digital UMKM: Teknologi, Keterampilan, dan Kolaborasi

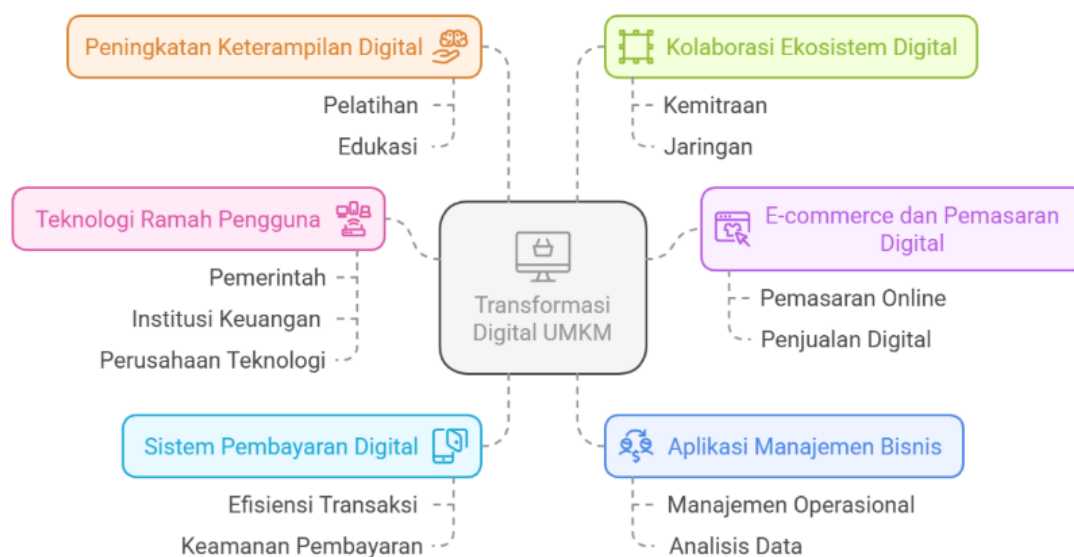


Figure 3. Utilization of Digitalization for MSME Development

1) Digital Transformation through E-commerce and Digital Marketing

Digitalization can be used to expand the MSME market through e-commerce platforms and social media. By utilizing the marketplace, MSMEs can reach a wider range of consumers without having to own a physical store. Digital marketing through social media, paid advertising, and SEO (Search Engine Optimization) strategies also allows MSMEs to increase visibility and attract new customers at a more cost-effective rate than conventional marketing methods.

- 2) The Use of Digital Payment Systems to Improve Transaction Efficiency.
Digital payment systems such as e-wallets, QRIS, and mobile banking allow MSMEs to receive payments faster, safely, and without having to rely on cash. This not only increases convenience for customers but also helps MSMEs in better transaction recording, which ultimately supports more professional business financial management.
- 3) Utilization of Business Management Applications and Software.
MSMEs can improve operational efficiency by utilizing cloud-based applications and software for stock management, financial records, and customer relationship management (CRM – Customer Relationship Management). With digitalization in business management, MSMEs can save time and costs and reduce the risk of errors in business operations.
- 4) Digital Skills Improvement through Training and Education.
In order for MSMEs to truly experience the benefits of digitalization, business actors need to be provided with training on digital literacy, cybersecurity, and digital marketing strategies. With increasing digital skills, MSMEs will be better prepared to adopt technology and be more confident in utilizing various digital platforms to grow their businesses.
- 5) Collaboration with the Digital Ecosystem.
MSMEs can more quickly adapt to digitalization through collaboration with various parties, such as marketplaces, digital banking, fintech companies, and the government. Support from this digital ecosystem can help MSMEs in gaining access to business capital, wider marketing, as well as legal protection and security of digital transactions.

Overall, digitalization provides a great opportunity for MSMEs to grow, but it also presents challenges that must be overcome through a systematic and collaborative approach. By understanding the factors influencing technology adoption through TAM and TRI, as well as by overcoming the key barriers identified in the literature study, MSMEs can make optimal use of digital technologies to improve the competitiveness and sustainability of their businesses in this digital era.

Digitalization provides a great opportunity for MSMEs to grow faster and more efficiently. By utilizing digital technology, MSMEs can increase business scale, optimize business operations, and expand market reach both at the national and international levels. However, the successful use of digitalization requires technological readiness, user readiness, and support from various stakeholders. Therefore, a holistic strategy through digital education, infrastructure improvement, and collaboration with the digital ecosystem is needed so that MSMEs can take full advantage of digitalization and sustainability. With the right approach, digitalization is not only a tool for MSMEs, but also a key factor in building a more inclusive, competitive, and highly competitive business ecosystem in the digital economy era.

4.2 The Role of MSME Development as a Pillar of Development through Digitalization Peranan UMKM Sebagai Pilar Pembangunan Ekonomi melalui Digitalisasi



Figure 4. The Role of MSMEs as a Pillar of Economic Development

Digitalization has a very significant impact on the development of MSMEs themselves as well as economic development as a whole. Here are some of the impacts obtained if the digitization of MSMEs runs optimally:

- 1) **Increased Productivity and Operational Efficiency**
With the adoption of digital technology, MSMEs can automate various business processes such as inventory management, accounting, and marketing. The use of information systems and e-commerce allows MSMEs to reduce operational costs through efficiency in production and distribution, increase the speed of service to customers, and facilitate access to more accurate business data for decision-making. Research shows that the application of information technology, such as accounting information systems and e-commerce, has a positive impact on the operational efficiency of MSMEs, including in better inventory management, financial tracking, and decision-making. Digital technologies such as inventory management systems and accounting applications help MSMEs manage business operations more efficiently. A study by Wijaya and Prasetyo (2022) shows that the use of information technology can reduce operational costs by up to 25%. This allows MSMEs to allocate resources more effectively. Digital technologies such as inventory management systems and accounting applications help MSMEs manage business operations more efficiently.
- 2) **Greater Access to Global Markets**
Digitalization allows MSMEs to reach consumers outside their geographical area, both at the national and international levels. Studies show that digitalization has a huge positive impact on the development of MSMEs, including wider market access

and more effective marketing. Digitalization allows MSMEs to reach a wider market through e-commerce platforms. MSMEs in the culinary sector such as cafes and restaurants in Jakarta who use online delivery applications expand their market reach and increase income (Rizki & Setiawan, 2022).

With a presence on e-commerce platforms and the use of digital marketing strategies, MSMEs can:

- a) Reach potential customers without the limitations of physical locations.
 - b) Increase product exports through global platforms.
 - c) Optimize marketing strategies with digital data analytics.
- 3) Increasing Financial Inclusion and Ease of Access to Funding
- Digital payment systems, such as e-wallets and fintech platforms, accelerate transactions and increase financial inclusivity for MSMEs. In addition, digitalization also opens access to more flexible financial services, such as fintech-based digital loans that are more accessible than conventional banks, Crowdfunding and peer-to-peer lending that accelerate business capital raising, and transaction-based digital credit scores that allow MSMEs to get credit with lighter terms. With digitalization, MSMEs can save time and costs that were previously used for manual processes, as well as run more effective and scalable marketing campaigns.
- 4) Driving Innovation and Competitive Advantage.
- Digitalized MSMEs tend to be more innovative in developing products and services. The use of technology such as big data and the Internet of Things (IoT) allows MSMEs to Develop products that are more in line with market needs based on data analytics, improve customer experience through technology-based services, Adapt faster to changes in industry trends. Digitalization allows MSMEs to grow and compete in an increasingly competitive industry.
- 5) Contribution to Macroeconomic Growth
- As MSMEs become increasingly digitalized, their positive impact on the national economy becomes more significant. Some of the macro benefits that can occur include
- a) Increasing National GDP: The digitization of MSMEs can significantly increase the contribution to national GDP.
 - b) Job Creation: Fast-growing MSMEs will absorb more labor in various sectors.
 - c) Economic Equity: With digitalization, MSMEs in remote areas can also develop, reducing economic disparities between regions.

The digitization of MSMEs will have a huge impact in increasing productivity, expanding market access, increasing financial inclusion, encouraging innovation, and accelerating national economic growth. However, to achieve this, it is necessary to support a strong digital ecosystem, increase digital literacy, and government policies that support the acceleration of MSME digital transformation. With optimal digitalization, MSMEs can become the backbone of a more resilient and competitive economy in the era of globalization.

5. Conclusion

Digitalization provides many benefits for MSMEs, namely increased turnover, including increased market access through e-commerce, operational efficiency through digital payment systems, and better business management through the use of applications. Technology still faces considerable challenges, especially for MSMEs located in remote areas with limited internet access and technological infrastructure. The success of the

implementation of digital technology by MSMEs does not only depend on the availability of technology itself, but also on factors that affect technology adoption, such as the Technology Acceptance Model (TAM) and Technology Readiness Index (TRI). MSMEs' efforts to adapt to digitalization are Digital Transformation through E-commerce and Digital Marketing, the Use of Digital Payment Systems to Improve Transaction Efficiency, the Utilization of Business Management Applications and Software, Digital Skills Improvement through Training and Education, and Collaboration with the Digital Ecosystem. The impact of economic development is due to the digitalization of MSMEs running optimally, namely: 1). Increasing Productivity and Operational Efficiency, 2). Greater Access to Global Markets. 3) Increasing Financial Inclusion and Ease of Access to Funding, 4). Encouraging Innovation and Competitive Advantage, and 5) Contributing to Macroeconomic Growth.

The suggestions from this study are as follows:

- 1) Training and development of digitalization skills in an effort to increase the development of MSMEs as a pillar of Indonesia's development. Digital education and mentoring programs for MSMEs must continue to be improved. Continuous training on the use of digital technology in business can help MSMEs overcome the psychological and technical obstacles they face.
- 2) Collaboration between the government, the private sector, and the community that can optimize digitalization for the development of MSMEs.
- 3) The government's role in creating policies that support the digitalization of MSMEs, such as providing tax incentives for technology adoption and expanding access to digital infrastructure.
- 4) The involvement of education and training institutions in improving the digital literacy of MSME actors so that they can understand and optimize the available technology.
- 5) Digital platforms such as marketplaces and fintech can also play a role in making it easier for MSMEs to transact and manage their businesses more efficiently.

References

- Agus, T., & Widodo, H. (2022). "Digitalisasi UMKM dan Peningkatan Kesejahteraan: Studi Kasus di Sektor Kuliner." **Jurnal Ekonomi dan Bisnis Indonesia**, 15(2), 123-135.
- Arnu, A. P., Ratnasari, I., Suartini, S., Muhammad, R. F., Zahra, N. S., Santoso, W., & Millasyifa, N. (2024). Peningkatan kompetensi sumber daya manusia pada UMKM dalam menghadapi era digitalisasi dan persaingan bisnis. *Jurnal Inovasi Hasil Pengabdian Masyarakat (JIPEMAS)*, 8(1), 37-47. <https://doi.org/10.33474/jipemas.v8i1.22391>
- Badan Pusat Statistik. (2023). *Statistik E-commerce 2023*. Jakarta: BPS.
- Handayani, W., & Nugroho, S. (2021). "Penerapan Teknologi Digital pada UMKM: Pengalaman Adopter Awal di Jakarta." **Jurnal Teknologi dan Manajemen**, 11(1), 45-58.
- Harto, B., Sumarni, T., Dwijayanti, A., Komalasari, R., & Widyawati, S. (2023). Transformasi Bisnis UMKM Sanfresh Melalui Digitalisasi Bisnis Pasca Covid 19. <https://journals.upi-yai.ac.id/index.php/IKRAITH-ABDIMAS/issue/archive>
- INDEF. (2024). Peran Platform Digital Terhadap Pengembangan UMKM di Indonesia. <https://indef.or.id/wp-content/uploads/2024/01/Laporan-Final-Peran-Platform-Digital-Terhadap-Pengembangan-UMKM-di-Indonesia-INDEF.pdf>

- Kementerian Koperasi dan UKM. (2022). "Laporan Kinerja UMKM Indonesia 2022." Jakarta: Kementerian Koperasi dan UKM.
- Muditomo, A., & Setyawati, N. (2022). Digital Transformation of Small Medium Enterprises: A Descriptive Analysis of Quick Response Indonesia Standard Data. *Equilibrium: Jurnal Ilmiah Ekonomi dan Pembelajarannya*, 4(2), 139-150.
- Pramesworo, I. S., Yustisia, N., & Evi, T. (2024). Jurnal Abdimas Perbanas Jurnal Pengabdian Kepada Masyarakat Perbanas Institute Jakarta Transformasi Usaha Mikro Kecil dan Menengah: Menuju Bisnis Kreatif dan Inovatif. *Jurnal Abdimas Perbanas*, 5(No. 1), 8–20. <https://journal.perbanas.id/index.php/JAP/>
- Prasetyo, D., & Rahardjo, S. (2023). "Penerapan Teknologi Digital dalam UMKM: Studi Kasus di Sektor Kuliner." **Jurnal Teknologi dan Inovasi**, 12(2), 102-115.
- Putra, G. P. E., Evangeulista, G., Agustin, A., Pramesti, D. T., & Madiistriyatno, H. (2023). Strategi UMKM dalam Menghadapi Digitalisasi. *Oikos-Nomos: Jurnal Kajian Ekonomi dan Bisnis*, 16(1), 33-45.
- Rizki, A., & Setiawan, R. (2022). "Pemasaran Digital pada UMKM: Studi Kasus di Yogyakarta." **Jurnal Pemasaran dan Manajemen**, 18(3), 78-92
- Sari, D., Putri, R., & Handayani, W. (2023). "E-commerce Adoption and Its Impact on MSMEs' Performance." **Journal of Digital Business**, 10(1), 78-92.
- Sari, D. P., Wijaya, A. F., & Nugroho, A. S. (2023). Pengaruh Pemanfaatan Platform Digital terhadap Peningkatan Penjualan UMKM di Indonesia. *Jurnal Ekonomi dan Bisnis Indonesia*, 8(1), 12-25.
- Sutrisno, S., & Widiastutputri, N. (2022). "Inovasi Radikal dalam UMKM: Analisis Model Bisnis Digital di Jakarta." **Jurnal Manajemen dan Inovasi**, 14(2), 150-165.
- Wijaya, T., & Prasetyo, A. (2022). "The Impact of Digitalization on Operational Efficiency of MSMEs in Indonesia." **Indonesian Journal of Business and Management**, 7(4), 201-215.
- Wilestari, M., Mujiani, S., Sugiharto, B. H., Sutrisno, S., & Risdwiyanto, A. (2023). Digitalisasi dan Transformasi Bisnis: Perspektif Praktisi Muda UMKM tentang Perubahan Ekonomi. *Jurnal Ilmu Sosial Dan Humaniora*, 12(2), 259–268. <https://doi.org/10.23887/jish.v12i2.61216>