

THE IMPACT OF DIGITALIZATION ON THE GROWTH OF MSMEs IN THE MODERN ECONOMY

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Abstract

Digitalization has become the main catalyst in spurring the growth of Micro, Small and Medium Enterprises (MSMEs) in the modern economic era. This literature research examines the various impacts that digitalization has on the growth of MSMEs. Among other things, digitalization significantly increases operational efficiency through automation of business processes such as inventory management, accounting and customer service. In addition, digital technology opens up MSME access to a wider market through e-commerce and digital marketing platforms, enabling them to reach global customers and increase sales. Digitalization also plays an important role in improving the quality of customer service through personalization of service and more effective communication. Customer Relationship Management (CRM) tools and data analytics help MSMEs understand customer needs and develop better service strategies. Fintech and crowdfunding platforms offer more accessible alternative financing options, supporting the expansion and growth of MSME businesses. Product and service innovation is driven by digital technology, enabling MSMEs to remain competitive and responsive to changing market needs. Additionally, digital platforms facilitate collaboration and networking, supporting a more efficient exchange of knowledge and resources. Overall, digitalization not only accelerates the growth of MSMEs but also strengthens the economy as a whole by opening up new opportunities and optimizing existing potential.

Keywords: Digitalization, MSME Growth, Modern Economy

INTRODUCTION

The rapid increase in information and communication technology in the last few decades has created a wave of digital transformation which has no exception affected the Micro, Small and Medium Enterprises (MSME) sector (Nurhayati & Rifki, 2023). MSMEs, which are the backbone of the economy in many countries, including Indonesia, account for the majority of the total number of companies, provide employment opportunities and encourage innovation. However, the challenge of increasing their efficiency and competitiveness is increasingly complex in the digital era. Digital transformation offers various opportunities for MSMEs to increase operational efficiency, access new markets, expand market share, and improve customer relationships (Septiandika et al., 2023a). However, the adoption of digital technology also brings a number of challenges such as the need for large investments in technology and digital skills training, as well as data security risks.

Digitalization has brought significant changes in the way MSMEs run their operations, especially in terms of marketing, management and customer service. E-commerce platforms, social media and business management software have become important tools for MSMEs to achieve operational efficiency and effectiveness. With digital technology, MSMEs can carry out broader marketing at lower costs, as well as improve interaction and service to customers via digital platforms (Supari & Anton, 2022a). However, not all MSMEs are able to quickly or effectively adopt this technology. Many MSMEs still experience a digital divide, both in terms of access to technology, knowledge and skills to use it. Factors such as uneven technological infrastructure, limited human resources and limited capital are significant obstacles.

As the economic landscape changes increasingly driven by digital technology, research on the impact of digitalization on the growth of MSMEs becomes very important. Not only to understand how technology can help MSMEs develop, but also to identify the obstacles they face and find effective solutions. By understanding the factors that influence the adoption and use of digital technology, better strategies can be formulated to support the digital transformation of MSMEs and ensure that they can contribute optimally to the modern economy (Dama, 2024). It is hoped that this research can make an important contribution to policy makers, business people and the academic community in efforts to increase the competitiveness and sustainability of MSMEs in the digital era.

The global context increasingly illustrates the urgency of adopting digital technology in advancing MSMEs. Developed countries have shown that digital technology can increase the global competitiveness of their MSMEs (Aniket, 2023a). In the case of Indonesia, the adoption of digital technology by MSMEs can help not only in increasing productivity but also in accelerating economic inclusion. For example, by utilizing e-commerce platforms, MSMEs can reach consumers beyond their traditional geographic boundaries, penetrate international markets, and participate in global value chains (Run & Shin, 2024). Additionally, technologies such as big data and analytics can provide valuable insights for better decision making, while cloud computing enables access to digital assets previously out of reach for small and medium-sized businesses.

However, even though the potential benefits of digitalization for MSMEs are enormous, this transformation process is also faced with a number of challenges. The biggest obstacle often stems from a lack of digital skills among the MSME workforce. Many MSMEs whose owners or employees do not have sufficient knowledge or training to operate digital systems effectively (BAKARI, 2022). Digital infrastructure, especially in remote areas, is still inadequate to support the adoption of advanced technology. Financing is also a big problem because the initial investment required to adopt digital technology tends to be large, while MSMEs' access to funding sources is often limited (Philycia & Berlianto, 2022).

In the midst of this dynamic, government policies and support from the private sector and international organizations play a key role. Digital skills training programs, subsidies for technology investment, and the provision of adequate digital infrastructure are becoming increasingly important to facilitate the successful digitalization of MSMEs (Eriyanti et al., 2023a). In addition, cooperation between various stakeholders is needed to create an inclusive and sustainable digital ecosystem. With the right approach, digitalization can be a powerful tool to increase the competitiveness of MSMEs, encourage innovation, and create higher quality jobs.

RESEARCH METHOD

The study in this research is qualitative with literature. The literature study research method is a research approach that involves the analysis and synthesis of information from various literature sources that are relevant to a particular research topic. Documents taken from literature research are

journals, books and references related to the discussion you want to research (Earley, M.A. 2014; Snyder, H. 2019).

RESULT AND DISCUSSION

The Impact of Digitalization on MSME Growth

Digitalization has had various significant positive impacts on the growth of MSMEs, especially in terms of operational efficiency and market access. With the adoption of digital technology such as e-commerce and social media, MSMEs can now reach a wider market at relatively lower costs. This allows MSMEs to increase their turnover by selling online and utilizing digital platforms for marketing (Dangmei & Singh, 2022). The use of business management software helps MSMEs manage inventory, process transactions and record finances more efficiently, which has a direct impact on increasing productivity and reducing operational costs.

However, digitalization also brings significant challenges for MSMEs, especially regarding skills and infrastructure. Many MSMEs do not yet have sufficient knowledge or capabilities to adopt digital technology effectively. The lack of digital skills among MSME workers often hinders the digital transformation process (Jauhar, 2024). In addition, the uneven availability of digital infrastructure, especially in rural or remote areas, is the main obstacle preventing MSMEs from fully enjoying the benefits of digitalization. Limited fast and affordable internet access adds complexity to adopting digital technology.

The financing aspect is also a critical challenge for MSMEs in the digitalization process. The initial investment to adopt digital technology, such as hardware and software, often requires quite large costs, which are difficult for many MSMEs to meet (Farida & Fitriani, 2022). Risks related to cyber security are also a concern, because MSMEs must ensure that their data and customer data are well protected. Overall, although digitalization opens up many opportunities for MSMEs to grow and develop, the success of digital transformation depends on the ability of MSMEs to overcome these challenges through skills training, infrastructure improvements and appropriate policy support.

By considering the positive impacts and challenges brought by digitalization, the role of government and the private sector is very crucial in supporting MSMEs to transform digitally. Governments can play an important role through policies and initiatives that support the development of an inclusive digital ecosystem. Digital skills training programs for MSME owners

and workers, subsidies for technology adoption, and improvements to digital infrastructure, especially in remote areas, are important steps that can be taken by the government (Halida & Wilantini, 2022). Collaboration with the private sector in providing affordable technology solutions that suit the needs of MSMEs is also very necessary.

On the other hand, the private sector, especially technology companies, can contribute through product and service innovation that suits the needs and capacities of MSMEs. For example, e-commerce and fintech service providers can develop platforms that are more user-friendly and specific for MSMEs, making it easier for them to adopt digital technology (Untura, 2022). Partnerships between large companies and MSMEs in the form of guidance and assistance can also speed up the digitalization process. Innovations in technology, such as the use of artificial intelligence (AI) and machine learning, can also help MSMEs analyze data for better decision making.

Overall, a comprehensive strategy involving various stakeholders is key to overcoming challenges and maximizing the benefits of digitalization for MSMEs. Through a holistic approach, MSMEs can be strengthened to be more competitive in an increasingly digital and global market. Digitalization not only brings changes in the way MSMEs operate, but also has the potential to create new jobs, encourage innovation, and accelerate economic growth (Simanjuntak & Pasaribu, 2023). Therefore, a joint commitment from the government, the private sector and the MSME community itself is very important to ensure that digitalization can become the main driver of MSME growth in the modern economy.

Factors Influencing the Successful Adoption of Digital Technology

The successful adoption of digital technology by MSMEs is influenced by several key factors, one of which is digital skills and knowledge. The digital literacy level of MSME owners and employees has a major influence on how they understand and utilize technology for daily operations. Continuous education and training in digital skills is essential to overcome these barriers. Relevant and affordable training programs organized by the government, educational institutions or technology companies can help improve digital competence among MSMEs (Hadinata, 2023). Practical assistance and guidance from mentors who are experienced in digital technology can provide deeper insight and motivation.

Access to adequate digital infrastructure is also a crucial factor. The existence of a fast and stable internet network is a basic requirement for MSMEs to be able to adopt digital technology. In many areas, especially in rural areas, this infrastructure is still not optimal. Investment in internet network development by the government and telecommunications service providers is very necessary to ensure that MSMEs in all regions can access digital technology easily (Judijanto & Hildawati, 2024). Access to hardware such as computers and smartphones that are capable of supporting digital applications is also an important issue that needs attention.

The financing aspect is another determining factor in the adoption of digital technology by MSMEs. Many MSMEs still face obstacles in accessing capital to invest in digital technology. Providing competitive financing schemes such as low-interest credit, grants, or special subsidies for technology investment can help reduce the financial burden faced by MSMEs (Sudhakar & Kumar, 2024). The existence of incentives from the government such as tax reductions for investment in technology can also be an effective stimulus. Financial institutions and fintech companies can play a role in providing financial products specifically designed to support the digitalization of MSMEs.

Another factor that is no less important is ecosystem support and partnerships. The success of digital technology adoption is often influenced by the ability of MSMEs to find and establish partnerships with technology and service providers that suit their needs (Lim & Kesumahati, 2023). Collaboration with technology solution providers, e-commerce platforms and digital financial services can speed up the transformation process. Incubation and acceleration programs involving large companies and technology startups can create a supportive environment and provide access to resources, knowledge and broader networks. The support of business associations and industry communities is also important in providing a forum for sharing experiences and best practices (Giua et al., 2022).

Apart from that, awareness and appreciation of the benefits of digital technology need to be increased. Many MSMEs are hesitant to adopt digital technology because they do not fully understand its benefits or are worried about the costs and risks that may arise. Effective educational campaigns can help overcome these barriers by presenting real-world evidence of how digital technology can improve operational efficiency, expand markets and increase profits. Testimonials from other MSMEs that have been successful in carrying

out digital transformation can provide inspiration and confidence for MSMEs that are still considering starting up (Rahmawati et al., 2024).

Government regulations and policies play a very significant role in supporting technology adoption by MSMEs. Proactive and supportive regulations can encourage innovation and technology adoption by minimizing bureaucracy, providing tax incentives, and ensuring a safe and fair business environment. Data protection and privacy are important aspects of regulation, because MSMEs need to feel confident that their data and information is safe when switching to digital solutions. The government can also introduce policies that ensure openness and accessibility of technological solutions, so that not only large companies can benefit from them but also MSMEs from various sectors (Algassim et al., 2024).

Obstacles Faced by MSMEs in the Digitalization Process

In the digitalization process, MSMEs face several significant obstacles. One of the main barriers is the costs associated with technology adoption. The initial investment required to purchase hardware, software licenses and internet services is often a heavy burden for MSMEs with limited capital (Singh & Singh, 2023). The cost of maintaining and updating technology also adds to the long-term financial burden. Many MSMEs are hesitant to allocate their funds to new technologies without assurance of a quick return on investment and a real positive impact on their business.

The second factor is the lack of digital skills among MSME owners and employees. Many MSMEs, especially those in rural or less developed areas, do not have access to adequate training in the use of digital technology (Vernanda et al., 2023). In addition, owners and employees often lack time to learn new technologies because they have to focus on day-to-day business operations. These limitations prevent MSMEs from exploiting the full potential of digital technology and often make it difficult for them to integrate technology into their business processes.

Barriers in terms of culture and mindset also influence the digitalization process of MSMEs. Resistance to change and uncertainty about the results of digitalization make some MSME owners and managers hesitant to switch from traditional methods to digital solutions. There are also concerns regarding cyber security, which makes some MSMEs worry about the risk of cyber attacks that could disrupt their business. In addition, not all MSMEs have a clear strategic plan for implementing technology, so they are often confused about the steps they should take (Indriastuti & Kartika, 2022). Therefore, a

change in mindset and a more open attitude towards technological innovation among MSMEs is needed.

Apart from the main obstacles that have been mentioned, there are also other challenges such as limited infrastructure. In many areas, especially in rural or remote areas, internet infrastructure is still inadequate. Slow internet speeds and unstable connectivity are the main obstacles for MSMEs to access and utilize digital services effectively. These limitations make it difficult for MSMEs to carry out business operations that depend on the internet, such as e-commerce, real-time customer feedback, and data analysis (Chandraningtyas et al., 2022).

Strict regulations and complicated bureaucracy are also obstacles to the digitalization of MSMEs. Time-consuming licensing processes and regulations that are not in line with digitalization needs sometimes make MSMEs reluctant to innovate or expand the use of technology in their operations (Tatik et al., 2024). MSMEs often do not have sufficient legal resources or expertise to understand and follow applicable regulations. This prevents them from getting the full benefits of digital technology and presents greater compliance risks.

Another obstacle that is often faced is limited access to funding. Given that digital transformation requires investment, MSMEs often have difficulty obtaining the financing needed to purchase new technology, undertake training, and make operational changes (Feng & Wang, 2023). Credit from traditional banks and investors is often less available to MSMEs, especially those that do not have adequate collateral or a good credit history. Alternative funding such as crowdfunding or venture capital also has not fully reached many MSMEs. Without access to adequate funding, many MSMEs are forced to postpone or cancel their digitalization plans (Kuleh et al., 2023).

Strategies to Maximize the Benefits of Digitalization

To maximize the benefits of digitalization for MSME growth, one of the main strategies is investment in digital skills development. The government and related organizations can hold training programs and workshops that focus on increasing digital literacy for MSME owners and employees. This includes training on the use of digital tools and platforms, social media management, data analysis, as well as cybersecurity. This needs-based training will increase the capacity of MSMEs to utilize technology more effectively and efficiently, so that they can compete in an increasingly digital market (Fidat & Rolianah, 2023).

The second strategy is increasing access to adequate digital infrastructure. The government needs to invest in expanding fast internet coverage to all regions, including rural and remote areas. In addition, collaboration with telecommunications service providers to offer affordable internet packages for MSMEs will be very helpful. Better infrastructure will enable MSMEs to access and use digital technology more reliably, so that they are not limited by technical obstacles in running their business online (Nurhayati & Rifki, 2023).

Access to funding needs to be improved so that MSMEs can invest in new technologies. Banks, financial institutions and the government can provide various financing schemes specifically designed to support the digitalization of MSMEs, such as low-interest credit or grants. In addition, providing tax incentives for various technology-related expenses can encourage MSMEs to invest in digitalization. Partnerships with crowdfunding platforms and venture capital can also be explored to add alternative sources of financing (Septiandika et al., 2023b). Through better access to funding, MSMEs can accelerate the digitalization process and use it to expand markets, increase operational efficiency and encourage business growth.

As a continuation of the strategies already mentioned, it is also important to build a supportive digital ecosystem for MSMEs. The government and private sector need to work together to create platforms and initiatives that support connectivity between MSMEs, as well as connecting them with suppliers, customers and global business partners (Supari & Anton, 2022b). For example, governments can develop dedicated B2B (Business-to-Business) portals that facilitate e-commerce, while the private sector can provide affordable software-as-a-service (SaaS) solutions to MSMEs for inventory management, accounting, and customer relationship management (CRM). With an integrated digital ecosystem, MSMEs can operate more efficiently and identify new opportunities for expansion.

Additionally, it is important to increase digital awareness and adoption through marketing and education campaigns. Many MSMEs are still not aware of the benefits of digitalization. Therefore, campaigns that detail the business benefits of digital technology and share success stories of MSMEs that have successfully carried out digital transformation can increase the interest and trust of other MSME players. The government, media and business community can join hands to disseminate this information widely (Aniket, 2023b).

Collaboration between the education and industry sectors is also very important. Formal education and vocational training need to be updated to

include digital skills relevant to current industry needs. Curricula in schools and universities, including vocational higher education institutions, must cover topics such as e-commerce, data analytics, and information technology (Eriyanti et al., 2023b). Internship programs and collaborations with technology companies can enrich students' practical experience and give them a deep understanding of technology applications in real business contexts. With human resources who are more skilled in digital technology, MSMEs will be better prepared to transform and maximize the benefits of digitalization for their growth.

CONCLUSION

Digitalization has become a key factor driving the growth of MSMEs in the modern economy. Digital transformation brings various positive impacts to MSMEs, including increasing operational efficiency, access to wider markets, improving the quality of customer service, easy access to financial resources, product and service innovation, enhanced collaboration and networking. Overall, digitalization provides great opportunities for MSMEs to develop and compete in the modern economy. By utilizing digital technology, MSMEs can increase operational efficiency, reach wider markets, improve customer service, product and service innovation, as well as easier access to financing and resources. Digitalization not only drives business growth, but also contributes to strengthening the overall economy.

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