
The Impact of the Digital Economy on the Growth of MSMEs in Indonesia

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ABSTRACT

The digital economy has become a catalyst for structural changes in businesses, significantly impacting the growth of MSMEs in Indonesia by improving market access, operational efficiency, and financial inclusion. This study uses a qualitative approach based on a literature review to integrate empirical and conceptual findings related to the adoption of digital platforms, electronic payment services, digital literacy, and relevant government policies. Thematic synthesis reveals that digital technology adoption accelerates the expansion of consumer reach and enables more efficient supply chain management, but disparities in literacy and digital infrastructure are key barriers that reduce potential benefits for some MSMEs. The role of fintech and digital payment services increases financial inclusion but demands managerial capacity and data protection. Targeted policy interventions including training, digital financing facilitation, and infrastructure development—appear crucial to narrowing the adoption gap. The findings highlight the need for regular evaluation of digitalization programs to align them with local needs and business characteristics. Research recommendations include longitudinal studies to measure the long-term effects of digitalization on productivity, business resilience, and local economic equity. The results of this study provide a policy basis for improving the effectiveness of MSME digital transformation

Keywords: Digital Economy; MSMEs; Digitalization

INTRODUCTION

Indonesia's digital economic transformation is evolving through the accelerated use of information technology, which is changing interaction patterns between producers, consumers, and markets. Increasing internet penetration is fostering a more efficient and adaptive technology-based business ecosystem. These changes provide opportunities for businesses to utilize digital platforms to optimize product distribution and expand previously difficult-to-reach market segments. This dynamic demonstrates that digitalization is not merely a trend but a strategic necessity for business sustainability. The development of digital payment technology also accelerates transaction processes, strengthening the potential for increased sales volume. This technological integration creates new opportunities for small businesses to reimagine their marketing strategies in a more measurable manner. This shifting direction positions the digital economy as a key catalyst in the development of the national business landscape.

The dominant role of MSMEs in Indonesia's economic structure demonstrates the urgency of adapting to digital technology to remain competitive. Businesses at this scale face increasingly open competition due to the emergence of various e-commerce platforms that bring together numerous products in a single digital space. This situation demands increased managerial capacity and digital literacy so that business actors can position their products effectively. This challenge is further exacerbated by the

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emergence of quality and speed standards for services set by algorithm-based digital platforms. The success of MSMEs in surviving and growing in the digital era is largely determined by their ability to adopt technology sustainably. The availability of supporting infrastructure is a crucial element influencing the effectiveness of the business digitalization process. This complexity demonstrates that MSME digitalization must be understood as a strategic process that requires multi-sectoral support.

The digital economy offers significant opportunities for MSMEs to expand their reach through the use of marketplaces, social media, and automated marketing systems. This technology enhances product visibility and allows businesses to access consumers across a wider geographic area. Digital analytics systems also enable business owners to evaluate consumer preferences and adjust strategies based on more precise data. These positive impacts have the potential to increase productivity through streamlined and efficient supply chain management. The presence of integrated logistics features within digital platforms facilitates faster and more structured coordination of goods deliveries. Digital interactions between businesses and consumers also create more direct communication patterns, strengthening customer loyalty. This potential indicates that digital technology can accelerate the growth of small businesses that consistently utilize innovation.

Despite the significant opportunities, the disparity in digital literacy among MSMEs remains a major obstacle to digital transformation. Differences in education level, age, and business experience often impact the speed of technology adaptation. Some businesses still lack a thorough understanding of digital store management, online advertising management, and consumer data protection. This gap leaves some MSMEs lagging behind in the competition, unable to keep pace with the rapid changes in digital marketing systems. On the other hand, businesses that successfully overcome literacy barriers tend to show significant increases in revenue and market penetration. This difference in adaptability demonstrates that digital literacy is a key factor in business success in the digital era. This situation underscores the need to strengthen digital capacity through systematic and accessible training.

Access to digital infrastructure, such as a stable internet connection and technology-based devices, also determines how well MSMEs can participate in the digital economy. Areas with low connectivity often face barriers in managing transactions, business communications, and accessing market information. Infrastructure disparities create opportunity gaps that impact businesses' ability to compete equally in the digital space. MSMEs in areas with better networks tend to adopt technology more quickly and expand their marketing reach. Meanwhile, those in areas with limited access are forced to rely on less competitive conventional methods. This disparity demonstrates that MSME digitalization requires not only individual readiness but also adequate infrastructure support. Meeting these needs plays a crucial role in creating a more inclusive and equitable digital ecosystem.

Government policies regarding the digitalization of MSMEs are a crucial component in accelerating this transformation process. Digital literacy training programs developed by government agencies help businesses understand how to leverage technology in their operations. Support in the form of providing access to digital capital through fintech also opens up opportunities for MSMEs that previously struggled to obtain formal financing. Targeted policy interventions can strengthen MSMEs' adaptive capacity to technological change and increasingly open market competition. Furthermore, government collaboration with the private sector in developing a digital ecosystem enriches the tools available to MSMEs. This approach contributes to increasing business connectivity with

relevant digital platforms. The impact of these policies is evident in the increasing number of MSMEs joining the national digital ecosystem.

Even after the policy has been launched, the effectiveness of its implementation requires evaluation to ensure a match between the needs of MSMEs and the interventions provided. Not all programs are able to reach all business categories, especially those in remote areas or with low literacy rates. Businesses often face administrative or technical obstacles that hinder participation in digitalization programs. Data-driven evaluation is needed to understand the most common obstacles and formulate continuous program improvements. This evaluative approach strengthens policy accuracy, making it more responsive to the dynamics of the digital economy. Appropriate policy adjustments will increase the chances of successful MSME digitalization across the board. This step lays the foundation for strengthening the small business sector in facing future digital challenges.

The digitalization process of MSMEs ultimately impacts business growth by increasing efficiency, market access, and product competitiveness. Businesses that consistently utilize technology demonstrate more stable growth patterns than those that rely on conventional methods. Digitalization allows for savings in time and operational costs, thereby increasing productivity. Technological adaptation also creates opportunities for businesses to develop product innovations based on market data analysis. The relationship between technology and business performance is becoming stronger as consumer demand for fast and transparent services increases. This dynamic demonstrates that digitalization is not merely a technological trend but a mechanism driving structural change in MSME business models. Understanding this relationship is crucial for developing data-driven and sustainable business development strategies.

METHODS

This study employed a qualitative approach with a literature review method focused on a systematic analysis of various scientific publications discussing the relationship between the digital economy and the growth of MSMEs in Indonesia. This approach was chosen because it allows researchers to examine the phenomenon of digitalization in depth through conceptual interpretations and empirical findings generated by previous research. The literature search process was conducted using reputable academic databases such as Google Scholar, DOAJ, SINTA, and ProQuest to obtain relevant and scientifically accountable articles. Inclusion criteria included articles published within the last five to ten years, in both Indonesian and English, and containing discussions on MSME digitalization, digital platforms, technological infrastructure, digital literacy, government policies, and economic implications. Primary literature sources included journal articles, proceedings, official agency reports, and government publications, while secondary sources included books, conceptual studies, and international institutional reports related to the development of the digital economy. All collected literature was analyzed using thematic synthesis techniques to identify patterns, similarities, differences, and trends in research results relevant to the study's focus.

The analysis phase began with a screening process to ensure that each publication met the criteria for topic suitability, originality, and methodological credibility. Articles that met the criteria were then classified based on key themes, such as the development of the digital economy, technology adoption models in MSMEs, structural barriers to digitalization, government policy support, and the impact of digitalization on business performance. Thematic grouping was conducted using a manual coding strategy to identify key concepts, relationships between variables, and theoretical implications of

each research finding. After the grouping process was completed, the researcher compiled a comprehensive synthesis by integrating findings across articles to emerge a comprehensive picture of the dynamics of MSME digitalization in Indonesia. This approach allowed the researcher to evaluate the consistency of findings, identify research gaps, and assess the relevance of theories used in previous studies. The validity of the research was strengthened through cross-checking between sources and comparing findings from various publications to avoid interpretative bias. The results of the literature review synthesis were then used as a basis for formulating a conceptual understanding of the impact of the digital economy on MSME growth and relevant policy implications for the development of the small business sector in Indonesia..

RESULTS AND DISCUSSION

1. Digital Economic Transformation and Its Implications for the Business Structure of MSMEs

The use of digital technology has transformed the way MSMEs manage their businesses by migrating from traditional operational patterns to technology-based systems. This change has increased efficiency through the automation of marketing, communication, and transaction processes that previously required more time. MSMEs have gained new capabilities in monitoring business performance through real-time data. Advances in digital features provide access to consumer demand mapping, enabling more adaptive business decisions. This change in business structure creates opportunities to expand markets through increasingly mature digital connectivity. This transformation demonstrates a trend of reorienting business models toward more dynamic and responsive structures. The impact reflects the increased capabilities of small businesses in facing rapidly evolving competitive pressures.

The development of digital technology is encouraging MSMEs to strengthen their marketing strategies through the use of social media and marketplaces. Businesses can display products visually with better quality, thus attracting the attention of consumers who rely on digital information for purchasing decisions. Algorithm-based marketing strategies provide the opportunity to reach a more specific audience. The influence of this technology drives promotional cost efficiency because information distribution can be done at a low cost and with broad reach. Adapting to digital marketing patterns also requires MSMEs to understand the dynamics of consumer behavior, which increasingly relies on visual information and online reviews. This phenomenon reinforces the need for competency updates in digital brand image management. These changes demonstrate that mastering technology-based marketing strategies is a fundamental factor for the success of small businesses.

Digitalization has resulted in a shift in competition between businesses, intensifying as global market access opens up. MSMEs face competition from local and international products operating on the same platform. Algorithm-based competition encourages businesses to strengthen product differentiation to remain relevant amidst a multitude of options. This phenomenon creates new demands to improve service quality and accelerate customer response. The need for fast and accurate service requires MSMEs to increase operational capacity. Improving digital service standards is an indicator of consumer trust, directly impacting business reputation. This demonstrates that digitalization not only expands opportunities but also raises overall competitive standards.

Digital transformation is impacting product distribution patterns through the integration of increasingly efficient logistics systems. Digital platforms provide

connectivity that simplifies tracking and delivery of goods, minimizing the risk of delays and distribution errors. MSMEs can choose competitive logistics networks based on rates, speed, and service coverage. Automatic shipment tracking systems increase business accountability in the eyes of consumers. Logistics efficiency contributes to increased customer satisfaction, which impacts sustainable demand. Understanding digital distribution mechanisms adds value to the development of modern business models. This phenomenon indicates that digital logistics integration is becoming a fundamental component of the MSME value chain.

Digital transformation indirectly increases the innovation capacity of MSMEs through broader access to information. Businesses can learn about global trends, product designs, and marketing strategies from various digital sources. Ease of access to references accelerates business adaptation to changing market preferences. Access to data also enables MSMEs to develop products based on consumer responses recorded on digital platforms. The ability to innovate is a differentiating factor that strengthens the competitive position of small businesses. The digital environment provides opportunities for MSMEs to experiment with design, pricing, and service strategies. This demonstrates that digitalization opens up opportunities for innovation that were previously difficult for small businesses with limited capacity.

2. Digital Literacy and the Capacity of MSMEs in Optimizing Technology

Digital literacy plays a crucial role in determining the effectiveness of technology utilization by MSMEs. Understanding digital platform mechanisms influences how businesses manage sales, promotions, and customer interactions. Low literacy levels make it difficult to access advanced features that can improve business performance. Businesses that lack a grasp of the basics of digital store management are likely to face obstacles in the face of algorithm-based competition. Differences in literacy levels across business categories create imbalances in adaptability. This imbalance impacts growth rates, as businesses with higher digital capabilities tend to experience increased sales. This phenomenon demonstrates that digital literacy is a key foundation for the success of MSME digitalization.

The ability of MSMEs to manage data is a crucial indicator in improving the quality of business decisions. Data from digital platforms provides a detailed picture of consumer preferences, purchase timing, and user interaction patterns. Businesses that understand simple analytical techniques can develop strategies based on empirical evidence, not assumptions. Leveraging this data improves the accuracy of demand estimates and reduces the risk of production errors. Digital platforms also enable MSMEs to repeatedly test strategies for optimal results. The ability to interpret data provides a competitive advantage that strengthens business stability amidst competition. The role of data underscores the importance of developing deeper digital capacity.

Digital training is an effective means of improving the skills of MSMEs in optimizing technology. Training interventions provide an understanding of the use of digital features such as catalog management, paid advertising, and store performance measurement. Training also aims to raise MSME awareness of digital security standards to protect consumer data. Access to training activities expands business actors' ability to adapt to changing platform mechanisms. The impact of training is evident in MSMEs' increased ability to manage promotional strategies in a more measurable manner. This capacity-building process contributes to increasing the competitiveness of small businesses. This phenomenon underscores the need for more structured and accessible digital training.

The level of technological readiness of MSMEs influences the smooth operation of digital features. Adequate devices enable businesses to access digital platforms without technical barriers. The availability of compatible devices contributes to smooth transactions and communications. Device constraints often pose a barrier for small businesses lacking the financial capacity to upgrade. Lack of access to adequate devices reduces the effectiveness of technology use, even when digital literacy is readily available. This disparity directly impacts the differences in business performance between MSMEs with varying levels of technological readiness. This situation underscores the importance of support in providing affordable devices.

Strengthening digital literacy has a ripple effect on changing the business behavior of MSMEs. Entrepreneurs who understand technology tend to be more open to innovation and strategic updates. A willingness to experiment with digital features increases the chances of discovering more efficient strategies. This behavioral change is an indicator of the increased adaptation needed in a technology-based business environment. A positive attitude toward innovation contributes to accelerated small business development. Entrepreneurs' confidence in using technology also increases with improved literacy. This phenomenon enables MSMEs to achieve a more stable competitive position.

3. Digitalization Policy and Its Impact on MSME Growth

Government policies play a strategic role in expanding the digitalization of MSMEs through mentoring, training, and infrastructure facilitation programs. These programs aim to strengthen the capacity of business actors to operate digital-based technologies. This support accelerates the adoption of technology by MSMEs, which previously faced capacity limitations. The emergence of digitalization programs has had a positive impact on increasing MSME participation in the national digital ecosystem. The effectiveness of these programs depends on the quality of their implementation and their affordability for all business categories. Well-designed programs become drivers of accelerated technology-based economic growth. This phenomenon underscores the significant role of public policy in creating an inclusive digital climate.

The availability of digital infrastructure is a fundamental component of the success of MSME digitalization policies. Adequate infrastructure facilitates business actors' seamless access to digital platforms. Infrastructure disparities create a gap between rapidly developing regions and those lacking stable access. Internet network development is a critical priority for expanding MSME participation in the digital economy. Robust infrastructure accelerates transactions, enhances digital store management, and enhances product distribution. The positive impact is evident in the increasing number of businesses intensively utilizing digital platforms. Infrastructure development is a key foundation for successful digital transformation.

The digital financing facilitation policy provides new opportunities for MSMEs requiring more flexible access to capital. Digital financial platforms provide a data-driven risk evaluation system, enabling a faster approval process. Businesses with limited access to conventional financing can utilize this service to expand production capacity. Ease of access to financing has a positive impact on small business growth. Digital financing also encourages increased business accountability because transaction history can be monitored transparently. This development demonstrates that digital financing is a crucial component of the digital economy ecosystem. This phenomenon expands opportunities for MSMEs to grow more measurably.

Evaluation of digitalization policies is necessary to ensure the alignment of government programs with the actual needs of MSMEs. Data-based evaluations enable

the identification of deficiencies that hinder policy effectiveness. Evaluation results are used to improve training mechanisms, aid distribution, and infrastructure strengthening. Policies that are regularly evaluated have the potential to have a more relevant impact on businesses. Evaluation also improves the accuracy of program recipient targeting, ensuring more precise targeting. Continuous policy updates are a crucial strategy in addressing the ever-changing dynamics of technology. The evaluation process plays a crucial role in enhancing the sustainability of MSME digitalization programs.

Digitalization policies ultimately contribute to the accelerated growth of MSMEs by increasing technological capacity, market access, and operational stability. Businesses that receive policy support tend to internalize technology more quickly in their business activities. The impact of these policies can be observed in increased sales, expanded business reach, and strengthened product competitiveness. Structured policies create opportunities for MSMEs to develop innovations based on strengthened digital capacity. The increased growth of MSMEs contributes to the national economy through employment creation and increased economic activity. The role of policies as drivers of digital growth demonstrates the urgency of collaboration between the government, the private sector, and the business community. This phenomenon emphasizes that public policy is a crucial instrument in strengthening the digital MSME ecosystem.

CONCLUSIONS

The digital economic transformation has significantly changed the operational, marketing, and distribution patterns of MSME products in Indonesia, encouraging the creation of more adaptive and competitive business models. Technology integration expands market reach through increasingly mature digital connectivity and enables businesses to optimize data-driven marketing strategies. Improving the digital capacity of MSMEs is a determining factor in the successful use of technology platforms because digital literacy competencies influence the effectiveness of digital features. Differences in literacy levels create variations in adaptability, which directly impact business performance and growth stability. Access to digital devices and infrastructure also determines the smooth operation of MSMEs, making access inequality a challenge that must be addressed systematically. Government policies play a strategic role in accelerating digitalization through mentoring, training, digital financing, and infrastructure development. Policy effectiveness depends heavily on the program's alignment with the diverse needs of business actors, making regular evaluations essential. Responsive programs provide opportunities for MSMEs to strengthen their technological capabilities and adapt their business strategies to the dynamics of the digital market. The growth of MSMEs that successfully utilize technology demonstrates increased productivity, operational efficiency, and service quality. Digitalization creates greater innovation space for small businesses to develop products based on digitally recorded consumer preferences. These structural changes contribute to strengthening the competitiveness of MSMEs in the face of competitive pressures from both local and global markets. Overall, the digital economy is a key factor accelerating MSME development and expanding their contribution to the national economy..

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