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Mapping Digital Business Research in Indonesia: An Economic Perspective through a Systematic Literature Review (SLR)

Asmarani[1]

[1] Universitas Sarjanawiyata Tamansiswa, Yogyakarta, Indonesia

Abstract

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Digital transformation has become a key driver of Indonesia's economic growth, supported by the rapid rise of e-commerce, fintech, ride-hailing, and platform-based economies. Over the last decade, these innovations have positioned Indonesia as the largest digital economy in Southeast Asia, with projections reaching hundreds of billions of dollars by 2030. This study employs a Systematic Literature Review (SLR) to map the contributions, opportunities, and challenges of digital business in Indonesia. Using academic databases and thematic analysis, the review reveals that digital business significantly contributes to Gross Domestic Product (GDP), expands financial inclusion, and strengthens micro, small, and medium enterprises (MSMEs). However, challenges remain, including unequal digital access across regions, regulatory gaps, limited digital literacy, and rising cybersecurity risks. Theoretically, this study advances academic discussions by providing a comprehensive overview of digital business research trends in Indonesia. Practically, it offers policy insights to enhance infrastructure, improve digital literacy, and design adaptive regulations to support an inclusive and sustainable digital business ecosystem.

*Corresponding author:
(Asmarani)

1. Introduction

Digital transformation has reshaped the global business landscape and has had a significant impact on national economies, including Indonesia. Over the past decade, the advancement of digital technologies has spurred the emergence of various new business models, particularly in the sectors of e-commerce, fintech, online transportation, and platform-based economies. Indonesia's digital economy is even projected to become the largest in Southeast Asia, with its value expected to reach hundreds of billions of dollars by 2030 (Baijal et al., 2022). This phenomenon underscores the importance of a deeper understanding of the contribution of digital businesses to the national economy. In the global context, business digitalization has become a key driver of new economic growth. Digital technologies enable companies to create added value through operational efficiency, transaction cost reduction, and product and service innovation. According to Imamov and Semenikhina (2021), the digital revolution signifies a fundamental shift in the structure of the global economy, where information and technology are as crucial as capital and labor. This also applies to Indonesia, where digitalization offers vast opportunities to accelerate innovation-driven economic development.

From a national economic perspective, digital businesses contribute to GDP growth, enhance competitiveness, and create new employment opportunities. A 2022 report by Bank Indonesia highlighted those digital economic transactions through e-commerce, fintech, and digital payments have grown rapidly, amounting to hundreds of trillions of rupiah annually (Hidranto, 2022). Furthermore, digitalization supports productivity growth in the real sector through automation, supply chain integration, and the use of big data for business decision-making. Thus, digital businesses not only generate direct economic value but also strengthen the overall national economic structure (Miao, 2021; Bangsawan, 2023). However, the development of digital business in Indonesia is accompanied by major challenges. One crucial issue is the digital divide, namely the unequal access to information and communication technology between urban and rural areas. According to *Badan Pusat Statistik (BPS)* (2022), internet penetration in urban areas has surpassed 80%, while in some eastern regions of Indonesia, it remains below 50%. This disparity creates inequality in access to digital economic opportunities. In addition, cybersecurity risks have escalated alongside the expansion of digital activities. The 2021 Cybersecurity Report in Indonesia noted a surge in data breaches, online fraud, and ransomware attacks that could harm both individuals and institutions.

From a regulatory standpoint, Indonesia faces challenges in formulating adaptive policies for digital business development. Existing regulations often lag behind technological innovation, creating legal uncertainty for business actors. For instance, fintech regulation still faces hurdles related to consumer protection, data transparency, and supervisory mechanisms. This gap between technological innovation and regulation has the potential to hinder the growth of Indonesia's digital business ecosystem. Previous studies have discussed the contributions, opportunities, and challenges of digital business in Indonesia. For example, research by Respatiningsih et al. (2020) highlighted how digitalization increases MSME revenues through online market access. Meanwhile, The role of fintech in expanding financial inclusion. Nonetheless, the existing literature remains fragmented, making it difficult to present a comprehensive picture of the direction and trends in digital business development from a national economic perspective.

Therefore, this study seeks to develop a Systematic Literature Review (SLR) to address this gap. The SLR approach allows researchers to compile, evaluate, and synthesize findings from previous studies in a more structured and transparent manner. This study has two main objectives. First, from a theoretical standpoint, it aims to enrich the literature on Indonesia's digital economy by providing a comprehensive overview of the contributions, opportunities, and challenges of digital business. Second, from a practical perspective, its findings can serve as input for policymakers, business practitioners, and society in formulating more effective policies and business strategies in the digital era. A more comprehensive understanding of digital business in Indonesia will help maximize the potential of the digital economy while addressing its challenges. In conclusion, this article emphasizes the importance of systematically reviewing the existing literature to meet both academic and practical needs. It is expected that this study will contribute significantly to strengthening Indonesia's position as one of the leading digital economies in Southeast Asia, while also serving as a valuable reference for future research.

2. Methods

This study employs the Systematic Literature Review (SLR) approach developed by Kitchenham et al. (2009), as it provides a rigorous framework for comprehensively mapping existing literature, identifying research trends, and synthesizing findings in a systematic and structured manner. The use of SLR is particularly relevant for capturing the development of digital business research in Indonesia, given the rapid growth of the digital economy and the diversity of scholarly perspectives in this field. The research process was carried out in several stages. The first stage involved formulating research questions that focus on mapping trends in digital business research in Indonesia over the past decade, examining its economic contributions, identifying emerging opportunities, and addressing persistent challenges. Additionally, the study aims to highlight future research directions that could guide policymakers, academics, and practitioners.

The second stage was the literature search strategy, which relied on academic databases such as Google Scholar, Elsevier and Researchgate. Keywords used in the search process included digital business Indonesia, digital economy Indonesia, e-commerce Indonesia, fintech Indonesia, and digital economy transformation. To ensure the quality and relevance of the studies, inclusion criteria were applied to peer-reviewed journal articles published in either Indonesian or English, with a clear focus on the Indonesian digital economy. Exclusion criteria filtered out non-academic publications, opinion pieces, and articles lacking empirical or conceptual contributions.

The literature selection process followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method, which provides transparency and accuracy in the selection process. In the final stage, the selected articles were analyzed using content analysis and thematic synthesis. The analysis considered variables such as year of publication, research focus, methodological approaches, and key findings. The results were then categorized into major themes, including economic contribution, financial inclusion, the role of MSMEs, regulatory frameworks, and digital infrastructure, which collectively provide a comprehensive mapping of Indonesia's digital business landscape.

3. Results

3.1. Contribution of Digital Business to the Indonesian Economy

The analyzed literature indicates that digital business in Indonesia has a significant impact on economic growth, both directly through its contribution to Gross Domestic Product (GDP) and indirectly through financial inclusion and the empowerment of Micro, Small, and Medium Enterprises (MSMEs). In general, these contributions can be grouped into three main aspects: GDP growth, financial inclusion, and MSME strengthening. The growth of Indonesia's digital economy makes a tangible contribution to GDP. According to Komdigi (2021), the digital economy's contribution to national GDP reached around 5–6%. The e-commerce sector has become the main driver, with transaction values exceeding IDR 400 trillion in 2022. This contribution aligns with the projection of Baijal et al. (2022), who estimated that Indonesia's digital economy could reach USD 130 billion.

Compared with an earlier study by Marlinah (2019), which noted that the digital sector's contribution to GDP was still below 3%, there has been a significant upward trend in recent years. This reflects an accelerated adoption of digital technologies, particularly since the COVID-19 pandemic, which pushed economic activities toward digital platforms. Digital financial services, particularly fintech, have also expanded access to formal financial services. The Financial Services Authority (*Otoritas Jasa Keuangan/OJK*) in 2022 reported an increase in the financial inclusion rate from 67.8% in 2016 to 85% in 2022. Fintech innovations such as e-wallets, technology-based lending services, and digital investment platforms have provided solutions for communities previously underserved by conventional financial institutions. These findings are consistent with Mpofu (2023) in the Global Findex Database, which emphasized that digital finance is a key driver of financial inclusion in developing countries.

However, the Indonesian context is distinct, as fintech adoption is strongly influenced by high smartphone penetration and a predominantly young population. This differentiates Indonesia's development pattern from other developing nations, where infrastructure and financial literacy factors are more dominant. MSMEs, as the backbone of Indonesia's economy, have greatly benefited from digitalization. Research by Respatiningsih et al. (2020) shows that digitalization can increase MSME revenue by 30–40% through broader market access, operational cost efficiency, and the ability to adapt to shifting consumer preferences. This is further supported by Wandira et al. (2023), who highlighted that MSME digitalization in Southeast Asia plays a role in expanding employment, enhancing competitiveness, and accelerating post-pandemic economic recovery. However, in comparison with the study by Hamzah et al. (2023), major challenges remain in MSME digital literacy, limited technological infrastructure, and high logistics costs. Thus, while digitalization yields substantial positive impacts, its effectiveness is still highly dependent on human resource readiness and the support of the broader digital ecosystem.

Overall, the contribution of digital business to Indonesia's economy demonstrates a positive and increasingly significant trend year after year. Compared with earlier studies, there is clear evidence of the accelerating role of the digital economy, driven by technological advancements, the COVID-19 pandemic, and shifting consumer behavior. While prior to 2018 the digital economy's contribution was relatively small and largely limited to e-commerce, in the past five years it has expanded to encompass fintech, edtech, healthtech, and agritech. This trend shows that digital business is no longer merely a complement to the conventional economy but has become a primary engine of national economic growth.

Nevertheless, comparisons with earlier literature also reveal that these positive contributions continue to face barriers. Zuniga-Teran et al. (2020) emphasized challenges related to infrastructure gaps and unprepared regulations, while more recent studies highlight that despite the increasing contribution of the digital economy, digital divides and consumer protection remain critical issues. Therefore, although digital business significantly contributes to economic growth, the sustainability of this contribution greatly depends on government policies to strengthen digital infrastructure, improve technological literacy, and establish regulations that are adaptive to innovation. This literature review affirms that digital business has become one of the main pillars of Indonesia's economic growth. Its contribution is evident not only in GDP figures but also in enhancing financial inclusion and empowering MSMEs. Compared with earlier studies, the contribution of digital business today is stronger and more multidimensional, yet there remains considerable room for policy and strategy development to ensure a more equitable and sustainable impact across all regions of Indonesia.

3.2. Challenges and Directions of Digital Business Research in Indonesia

Although making significant positive contributions, the literature also highlights various challenges that continue to hinder the development of digital business in Indonesia. These challenges are not limited to technical aspects but also involve regulation, public literacy, and cybersecurity. A closer examination reveals four main aspects frequently discussed in the literature: the digital divide, regulations and policies, digital literacy and cybersecurity, and directions for future research. The gap in internet access between urban and rural areas remains one of the main barriers to digital economic development. Data from BPS (2022) shows that internet penetration in Java has reached 85%, while in Eastern Indonesia it remains below 50%. This disparity results in unequal access to digital economic opportunities, particularly for MSMEs in remote areas that struggle to adopt digital technologies.

Emphasizing limited ICT infrastructure as the primary obstacle to MSME digitalization. Compared to the findings of Kartiasih et al. (2023) in Southeast Asia, Indonesia's digital divide is relatively sharper due to geographical factors and uneven infrastructure distribution. Thus, addressing the digital divide remains a priority issue to ensure that the benefits of the digital economy can be experienced more inclusively. In addition to infrastructure gaps, regulations and policies also pose important challenges. Several studies highlight the need for adaptive regulations to keep pace with the rapid dynamics of digital business. For instance, fintech regulations in Indonesia still face obstacles in consumer protection, data transparency, and monitoring mechanisms.

Research by Bu et al. (2022) on fintech regulations in China shows that a clear and proactive regulatory framework can create a healthy investment climate and accelerate fintech adoption. This comparison indicates that Indonesia needs to accelerate policy adaptation to keep up with digital innovation. Without clear and adaptive regulations, risks for consumers and investors will increase, and trust in the digital ecosystem and business actors may decline. Digital literacy is one of the key determinants of MSMEs' success in adapting to technology. However, That most MSME actors still face limitations in strategically leveraging technology, particularly in digital marketing and data analytics. Compared with the survey results of the Indonesian Internet Service Providers Association, it is evident that although internet users have surpassed 210 million, the majority still use the internet for entertainment consumption rather than productive purposes Indonesian Internet Service Providers Association (*Asosiasi Penyelenggara Jasa Internet Indonesia/APJII*, 2022).

This indicates the need for more comprehensive strategies to strengthen digital literacy. The growth of digital business also faces serious challenges in the realm of security. Indonesia is among the countries with the highest levels of cyber threats in Southeast Asia. Marune et al. (2021) further note that low public awareness of personal data security exacerbates this vulnerability. Compared with earlier literature, security issues were not widely discussed, but they have now become one of the main focuses of recent research. This shift reflects increasing attention among academics and practitioners to consumer protection in the digital sphere as a crucial factor in building market trust.

4. Conclusion

This study emphasizes the importance of mapping the literature on digital business in Indonesia from an economic perspective through a Systematic Literature Review (SLR) approach. Using this method, various findings from previous studies are analyzed, evaluated, and synthesized to provide a comprehensive overview of both the contributions and challenges of digital business in Indonesia. The results indicate that digital business has played a significant role in driving economic growth, particularly through the increase of Gross Domestic Product (GDP), the expansion of access to financial services that support financial inclusion, and the strengthening of the competitiveness of Micro, Small, and Medium Enterprises (MSMEs) as the backbone of the national economy. Nevertheless, the development of digital business is not without structural barriers. The digital divide between urban and rural areas, regulations that are not yet fully adaptive to the dynamics of the digital economy, low levels of digital literacy among the population, and the growing threat of cybersecurity remain major concerns.

If left unaddressed, these obstacles could limit the full potential of digital transformation. Theoretically, this study contributes by presenting a research mapping framework for digital business, while also identifying directions for future research development. Practically, the findings offer recommendations for the government to strengthen digital infrastructure, improve digital literacy and technological skills among the population, and formulate responsive regulations. For business actors, the results provide a foundation for designing more innovative, inclusive, and competitive business strategies. Thus, digital business transformation in Indonesia should not merely be viewed as the adoption of technology, but as a critical instrument of national economic development capable of accelerating growth while enhancing the nation's competitiveness on a global scale.

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