Strengthening the MSME Digital Economy as Indonesia's National Economic Resilience

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ARTICLE INFORMATION

ABSTRACT

The objective of this research is to examine policies that enhance national economic resilience by leveraging the digital economy for Micro, Small, and Medium Enterprises (MSMEs). The employed methodology involves a descriptive approach through a literature review utilizing PESTEL analysis (Politics/Policy, Economic, Social, Technology, Education, and Legal). PESTEL analysis results show positive results for several factors, namely Politics/Policy and Economics, meaning that these factors contribute to the advancement of the digital economy in Indonesia, encompassing Social, Technological, Legal, and Education aspects. There are still gaps and inadequate regulations for the community and MSME actors.

Keywords: Digital Economy, National PESTEL Analysis, Resilience, SMEs

INTRODUCTION

National resilience in various fields is urgently needed by the country so that it can progress and develop, one of which is in the economic field which aims to maintain national economic independence to achieve a good level of economic resilience. Economic development is focused on strengthening economic resilience by creating a conducive and dynamic business climate and harnessing scientific and technological advancements, utilizing existing products and services, and enhancing competitiveness in the context of global economic rivalry (Marlinah, 2017). Advances in internet-based information technology have had an influence on the expansion of the digital economy, such as online businesses, startups, unicorns, and others both at home and abroad, including in Indonesia (Soemarwoto, 2020).

The digital economy in 2021 contributes 5.7 percent of the Gross Domestic Product (GDP) *(Kominfo, 2022).* The digital economy of Indonesia is anticipated to experience a20 percent growth, reaching USD 146 billion by 2025, with further expansion expected in the subsequent years. This makes Indonesia as a country experiencing the largest digital economic development among Southeast Asian countries, but Indonesia's digital economy transformation still needs to be optimized (Kemenkeu, 2022). The evolution of Indonesia's digital economy aligns with shifts in consumer behavior, as 49.6 percent of individuals now seek product information online prior to making a purchase (Alvara Strategic Research, 2019; Fuadi, Akhyadi, & Saripah, 2021). The advancement of the digital economy has the potential to facilitate the rise of novel business models, foster integration among various sectors, and bring about alterations to existing sectoral business models. These sectors include the financial industry, cultural and creative economy domains, agricultural sector, and agrological sector (Kominfo, 2019).

Micro, Small, and Medium Enterprises (MSMEs) hold a crucial positions as the foundation of the Indonesian national economy (Bank Indonesia, 2022). MSME has developed rapidly for the last decade in Indonesia (Sumarlinah, Sukesi, & Sugiyanto, 2022). Realizing that MSME in Indonesia remains to exist and thrive despite the economic crisis (Lombogia, Lumapow, Kewo, Wantah, & Wuisang, 2022). The MSME sector holds paramount significance, given its status as the largest contributor to the GDP. Additionally, it serves as a key player in job creation, and plays a crucial role in replacing the manufacturing of consumer goods or partially finished product (Bahtiar & Saragih, 2020; Ridwansyah, Supriyaningsih, & Amrina, 2021). As per the ASEAN Investment Report disclosed in Speptember 2022, Indonesia leads the ASEAN region in terms of the quantity of MSMEs. The Estimated count of MSMEs in Indonesia for 2021 is approximately 65.46 million units, significantly surpassing that of neighboring countries like Thailand, Malaysia, Singapore, the Philippines, and Vietnam. The number of MSMEs can absorb 97 percent of the workforce and contribute 60.3 percent of GDP and contribute to national exports (ASEAN, 2022).

Unfortunately, according to the Ministry of Communication and Informatics, the number of MSMEs that can do business online is only around 19 million business units, or 29 percent (Kominfo, 2022). Merely 24 percent of all MSMEs have embraced digital technology, engaging in sales through diverse e-commerce platforms *(Coordinating Ministry for Economic Affairs, 2022).* Whereas based on Google, Temasek, and Bain reports, Indonesia has the potential for digital economic growth worth USD 124 billion in 2025 (Google, Temasek, & Bain & Company, 2022). Indonesia MSMEs face hindrances in undergoing digital transformation, including insufficient financing, absence of digital skills training, limited policy support, the absence of business mentoring, and inadequate digital infrastructure (Boston Consulting Group dan Telkom

Indonesia, 2022). This is a concern for the government as a policy maker who has a very important role in the sustainability of MSMEs (Novitasari, 2022).

Indonesia has the potential for the number of MSMEs and the projected development of the largest digital economy in Southeast Asia, making Indonesia must be prepared to face the challenges and threats of the digital economy in the MSME sector to increase economic growth through policies that can optimize these potentials. Given this context and the identified issues, the objective of this research is to examine Indonesia's national resilience from the economic field by strengthening the digital economy of MSMEs in Indonesia using PESTEL (Politic/Policy, Economic, Social, Technology, Education, Legal) analysis. This research consists of a literature study, analytical methods, results, and discussion, as well as conclusions and suggestions.

LITERATURE REVIEW

National Economic Resilience
National Resilience consists of many aspects, such as Ideological Resilience, Political Resilience, Socio-Cultural Resilience, Defense-security Resilience, and Economic Resilience. Indonesia's economic resilience is a condition in which the Indonesian economic system can succeed in prioritizing stable growth and equitable economic development among its people (Suryohadiprojo, 1997; Wiryawan, 2023).

Economic resilience refers to the dynamic state of a nations's economic vitality characterized by resilience and durability. It entails the capacity to bolster national strength in confronting and surmounting various threats, obstacles, disruptions, challenges, both external and internal, whether direct or indirect. The ultimate goals are to ensure the continuity of the nation's economy and the stability of the state. Economic resilience may be characterized as a country's ability to maintain stable economic growth and maintain a sustainable standard of living for all its inhabitants through quality economic development while maintaining economic independence (Putra, 2022).

Digital Economy
Don Tapscott introduced the concept of the digital economy in 1995 through his book titled "The Digital Economy: Promise and Peril in the Age of Networked Intelligence". The digital economy refers to economic activities grounded in internet digital technology. It is alternatively termed the internet economy, web economy, digital-based economy, new knowledge economy, or new economy (Tapscott, 1995). Within the digital economy, the advent of digital disruption gives rise to a digital business model. The term "digital disruption" signifies the emergence of a novel business model resulting from the impact of digital of technology on altering the value of business transactions (Hartono, 2016). This means that humans no longer need to go to the market to obtain goods and services, but simply with a 'smartphone', goods can reach their homes to fulfill their desires (Permana & Puspitaningsih, 2019).

### Micro, Small, and Medium Enterprises (MSMEs)
According to Law Number 20 of 2008, Micro Enterprises are productive businesses owned by individuals and/or individual business entities that meet the criteria. Small Business is a productive economic business that stands alone, which is carried out by individuals or business entities that are not subsidiaries or not branches of companies that are owned, controlled, or become part either directly or indirectly of Medium or Large Businesses that meet the criteria.

Medium Business is a productive economic business that stands alone, which is carried out by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or become part of either directly or indirectly with Small Businesses or Large Businesses with a total net worth or annual sales proceeds as regulated in this Law Number 20 of 2008.

PESTEL Analysis
PESTEL analysis is an external business environment analysis tool and is considered appropriate for understanding the "overall picture" of an organization or a particular phenomenon (Walsh, 2005). PESTEL stands for Political, Economic, Social, Technological, Environmental, and Legal factors. It serves as a tool for examining and tracking external environmental influences affecting organizations (Christodoulou & Cullinane, 2019). Conducting a PESTEL analysis enables the identification of business opportunities and threats, facilitating timely adaption to market changes. Indirectly, the outcomes of a PESTEL analysis reveal opportunities and threats, which are subsequently discussed in a SWOT analysis, a fundamental tool for formulating organizational strategy.

Figure 1. PESTEL Framework
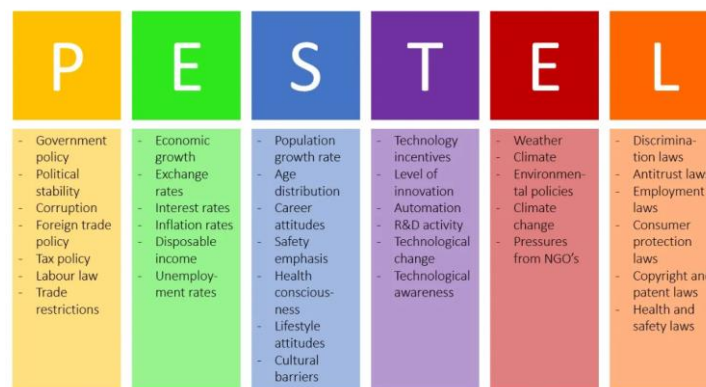
Source: Bruins, 2016; Mathovic, 2020.

Prior Research and Conceptual Framework
(Arrizal & Sofyantoro, 2020) analyzes economic resilience from increasing the digital economy through digital literacy and the legality of MSME businesses to increase economic resilience. Health, income, and family factors also affect the resilience of the national economy (Mujiyadi, 2015; Sudjana, 2019; Wiryawan, 2023; Sailendra & Djaddang, 2022; and Nata & Haryono, 2022). The development of information technology transformation so that people quickly adopt a digital economic system is directed toward economic independence which strengthens national resilience and Indonesia's GDP is also analyzed in writing (Soemarwoto, 2020; Aprilia et al., 2021; Novitasari, 2022; and Nizar & Sholeh, 2021). The digital economy is related to economic independence and national resilience for the independence and competitiveness of the nation's economy (Idat, 2019). The adoption of e-marketing through online marketplaces by MSME entrepreneurs yields a positive effect on economic resilience (Awali & Rohmah, 2020).

RESEARCH METHOD

In this study, a descriptive research method is employed, utilizing a literature review with a modified PESTEL analysis. The modifications in PESTEL involve transforming the Environment factor into Education and incorporating Political analysis as Policy. This adjustment aligns with research findings that underscore the significance of the educational factor in the advancement of the digital economy for MSMEs in Indonesia.

RESULTS

Policy/Politic Analysis (Policy/Politics)
The majority of MSMEs (56 percent) want better support from the government, in terms of access to capital, ease of doing business (31 percent), tax regulations (15 percent), and training (13 percent). The majority of MSMEs (56 percent) are satisfied with the support programs provided by the Government of Indonesia, but they still want further support, especially in the areas of skills training and legal aid. The five government programs with the lowest levels of satisfaction were: skills training (64 percent), certification process (42 percent), operational assistance (37 percent), capital loans and financial assistance (33 percent), and marketing and promotion (19 percent).

**Figure 2. SME Satisfaction Level with Government Programs**
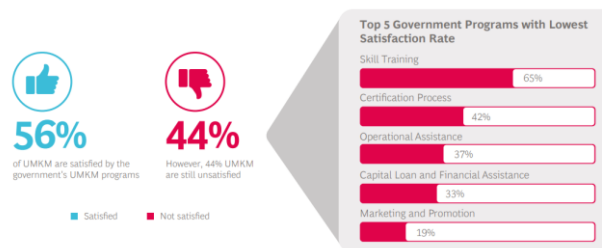
Source: Siregar, Malvinas, and Kurniawan, 2022.

The government has provided easy access to MSME financing through the distribution of KUR, KUR interest subsidies, working capital loan guarantees, final PPh rates of 0 percent for MSMEs, and extending credit restructuring. Until the end of July 2022, KUR distribution has been realized for IDR 209 trillion, equivalent to 56 percent of the 2022 target given to 4.4 million debtors. In addition to financial assistance, various facilities are also provided by the government such as electronic licensing registration, facilitation of standardization and certification for exports, access to financing and guarantees, and the prioritization in acquiring goods and services for the government and state-owned enterprises (BUMN) (Coordinating Ministry for the Economy, 2022).

Economic Analysis (Economy)
In 2022 the value of Indonesia's digital economy is estimated to reach US$77 billion. The figure is anticipated to experience further growth, with a compounded annual growth rate (CAGR) of 19 percent, reaching the range of US$220 billion-US$236 billion and the digital economy of Indonesia will be the largest in Southeast Asia until 2030 (Google, Temasek, & Bain & Company, 2022).

**Figure 3. Digital Economy Value of Southeast Asian Countries (2020-2030)**
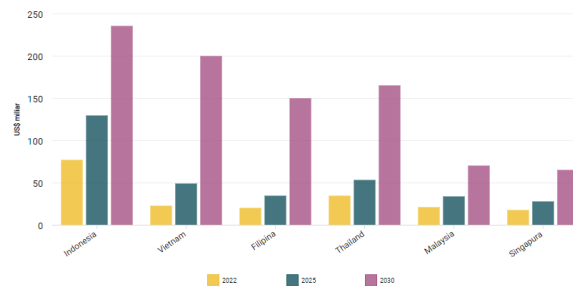
Source: Kusnandar, 2022.

The rapid growth of digital economic and financial transactions is driven by the growing public acceptance and preference for online shopping, the widespread availability and convenience of digital payment systems, and the efficiency of digital banking. The value of electronic money transactions (e-money) is expected to witness a 30.84 percent year-on-year (yoy) increase to Rp 399.6 trillion in 2022 and is projected to further rise by 23.90 percent (yoy) to reach Rp 495.2 trillion in 2023. The digital banking transactions are expected to see a year-on-year (yoy) increase of 28.72 percent, reaching IDR 52,545.8 trillion and the projection indicates a further growth of 22.13 percent (yoy) to reach IDR 64,175.1 trillion in 2023. Conversely, the quantity of currency in circulation (UYD) witnessed a 6.95 percent yoy upsurge, reaching IDR 1,026.5 trillion in December 2022 (Bank Indonesia, 2023).

Social Analysis (Social)
Based on the gender aspect, internet users in Indonesia are still dominated by men. The Central Statistics Agency (BPS), from data from the National Socioeconomic Survey or SUSENAS (2019) men still dominate internet use based on internet usage which is divided into 5 categories, namely desktop computers, laptops/notebooks, tablets, cellphones/mobile phones, others (BPS, 2019).

**Figure 4. The Proportion of Individuals Using the Internet by Gender (Percent), 2017-2019**
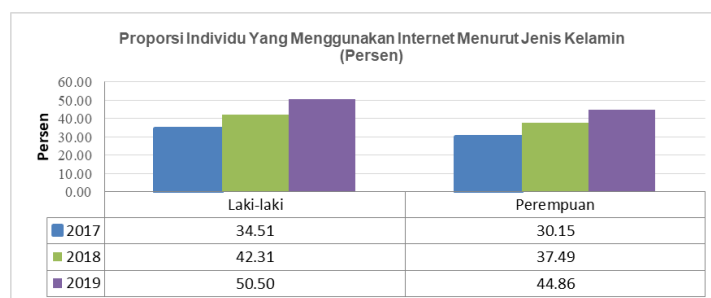
Source: BPS, 2019 (data processed).

Technology Analysis (Technology)
As per the Ministry of Cooperatives and SMEs, there are a total of 17.25 million or approximately 26.5 percent of MSMEs connected to the digital ecosystem as of 2022. This increase is due to Bank Indonesia regulations through the QRIS payment system which has been used by 16 million merchants, with 90 percent of them being MSMEs, so indirectly directly encourages the digitization of the MSME payment system.

**Figure 5. Number of Cyber Attacks in Indonesia 2019-2022 (Million Cases)**
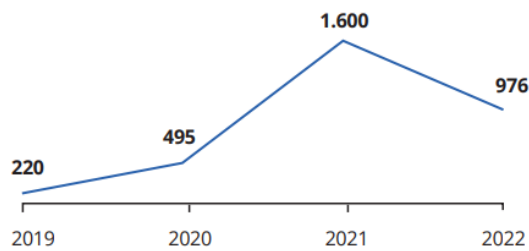
Source: Ventures, 2023.

Education Analysis (Digital Education/Literacy)
One of the obstacles to the use of technology in SMEs is digital literacy. Digital literacy among MSMEs is still relatively low, only 20 percent of MSMEs are digitally 'literate'. As evidenced by the BPS report, 34.10 percent of Indonesian business actors selling in *e-commerce* as of 15 September 2022. Meanwhile, the remaining 65.90 percent of business actors are still selling *offline* or conventionally (BPS, 2022).

Figure 6. Percentage of e-Commerce Businesses by Main Constraints, 2021
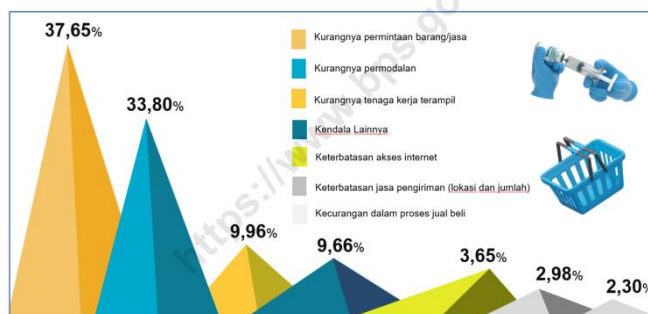
Source: BPS, 2021.

The limited digital literacy levels in Indonesia, particularly in rural regions, limits the economic potential that can be obtained by MSMEs from digital transformation. On a broader scale, low digital literacy will limit digital connections between users and MSME products/services, and exacerbate the digital divide between communities (Siregar, Malvinas, & Kurniawan, 2022). The gap between financial literacy and inclusion in the fintech sector reaches 8 percent. This shows that there are groups of people who have an understanding but have not had access to fintech services. This shows that there are opportunities that can be achieved by fintech players by expanding access to these community groups (East Ventures, 2023).

Legal (Regulatory) Analysis
To foster an environment conducive to the growth of the digital economy and to ensure the availability of swift, convenient, and accurate data/information, the government has enacted various regulations pertaining to e-commerce. These include Economic Policy Package XIV, which addresses the electronic-based economy, Presidential Regulations (Perpres) Number 74 of 2017 outlining the Roadmap for the Electronic-Based National Trading System (SPNBE), Government Regulation (PP) Number 80 of 2019 focusing on Trading Through Electronic Systems (PMSE), and Minister of Trade Regulation (Permendag) Number 50 of 2020 covering the provisions for business licensing, advertising, guidance, and supervision of business entities involved in trading

through electronic systems (BPS, 2022). Research by Elvlyn and Marhaen (2022) shows that the Job Creation Law also had a positive impact in encouraging the digitization of MSMEs during a pandemic which was marked by an increase in e-commerce transactions, the value of electronic trade transactions, the value of digital banking transactions, and so on.

This is contrary to the opinion of the Commission for the Protection of Business Competition. The development of the digital economy sector in Indonesia is accompanied by challenges in the form of inadequate legal instruments that protect all business activities in the digital economy era, especially those related to aspects of business competition and the protection of consumers' data (KPPU, 2019). MSMEs have limited resources making it difficult to obtain data to determine market preferences in the current digital era. Therefore, the role of KPPU and the existence of laws and regulations to protect MSMEs in the digital era need to be maximized (Septaviana, 2022).

Table 1. PESTEL Analysis

Politic/Policy	Economic	Social	Technology	Education	Legal
• 56 percent of MSMEs are satisfied with program support from the government. • Follow-up programs are expected in the form of capital/financing, taxation, law and training. • The government has channeled subsidies for easy financing through the KUR program and increased online access for business licensing.	• The value of Indonesia's digital economy will increase in 2022 and is projected to become the largest in Southeast Asia in 2030. • The increase in digital money is the impact of increasing digital payments such as Qris and M-banking.	• The gap in internet usage in Indonesia can be seen from that it is still centered in urban areas and is dominated by men. • Internet quality in Indonesia is still in the lowest 3rd rank in ASEAN. • DKI Jakarta is the area with the highest digital competitiveness but still low for government regulations, while Papua is the area with the lowest digital competitivenes.	• Only 26.5 percent of MSMEs are already connected to the digital ecosystem. • Digital financial services are considered to be inferior to conventional services. • Security in the use of digital technology is one of Indonesia's challenges.	• Only 20 percent of MSMEs have understood digital literacy. • Only 34.10 percent of MSMEs are already selling on e-commerce. • Low levels of digital lottery are still experienced in rural areas.	• According to KPPU, there are no adequate legal instruments for the digital economy sector for MSME actors.

Source: Processed Data.

DISCUSSION

The distribution of internet access still tends to be centered in western Indonesia and urban areas so the distribution of ICT infrastructure needs to be improved. Increasing internet access in rural areas in 2021 will also not be able to eliminate the gap between urban and rural areas. On the other hand, Indonesia's average internet speed is in the lowest 3rd rank among ASEAN countries (East Ventures, 2023). In 2023, Jakarta scores very high on indicators of entrepreneurship and productivity (100), as well as infrastructure (98.2), but scores low on indicators of regulation and local government capacity (37.4). This indicator is assessed based on the gross enrollment rates for SMA/SMK and tertiary institutions, growth in life expectancy, and poverty reduction which has not been optimal. Meanwhile, Central Papua is the province with the lowest digital competitiveness in 2023. The newly expanded province only received a score of 23.2 out of 100. All provinces in Java Island have the highest digital competitiveness index. Most of the provinces on the islands of Sumatra and Kalimantan have medium competitiveness, while the provinces in Eastern Indonesia have the lowest position.

Digital financial services are still less popular than conventional services. As many as 73.5 percent of the 10,000 respondents have used financial services in the form of Automated Teller Machines (ATMs) and 73.1 percent used bank accounts. Meanwhile, those who use digital wallets are 65.4 percent and users of other digital financial services are even lower, such as mobile banking users at only 13.3 percent and internet banking at 7.7 percent (Kominfo, 2022).

One of Indonesia's challenges in increasing the use of digital technology is security. Indonesia's cybersecurity level is ranked 84th and occupies the third lowest place among the G20 countries, partly because there is no cybersecurity policy and an independent data protection agency. In addition, there are cyber security threats as challenges to the digital economy and this is also related to the security of personal data (NCSI, 2022).

CONCLUSION

PESTEL analysis shows that there are strengths and weaknesses in increasing national economic resilience through the MSME digital economy. Political/policy and economic factors have a good influence on the development of the MSME digital economy. As for technological, social, legal, and educational factors, it is still the government's task, especially in terms of the gap in internet use in society and digital literacy for MSME actors. MSMEs in Indonesia are still experiencing various challenges such as in terms of innovation and technology that need to be improved, financing, human resources (HR), branding and marketing, legality, as well as standardization and certification (Coordinating Ministry for the Economy, 2022b). Broadband access, expanding electronic payments or e-payments, access to investment, and electronic government services (e-government) have been directed to be implemented.

The digital economy plays an important role in increasing the resilience of the national economy. MSMEs are one of the pillars of Indonesia's economic growth so increasing the digital economy in MSMEs is a concern for the government so that it can optimize the potential of MSMEs and the development of the digital economy in Indonesia through policies to face challenges and reduce digital economy threats in strengthening national economic resilience.

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