


# Increasing The Competitiveness Of Msmes In Karawang Through Digital Technology And Sustainable Business Models

Wike Pertiwi

Faculty of Economics and Business, Universitas Buana Perjuangan Karawang

Article Info	ABSTRACT
<p><b>Keywords:</b> Digital Technology, Sustainable Business Models, MSME Competitiveness</p>	<p>This study aims to analyze the level of adoption of digital technology and the Sustainable Business Model by MSMEs in Karawang, as well as identifying supporting factors, obstacles, and their impact. Qualitative and quantitative approaches are used in this study. Through online surveys and in-depth interviews, the research results show that the majority of MSMEs in Karawang have integrated digital technology, such as social media and e-commerce, with their operations. A number of MSMEs also adopt sustainable business practices, although to varying degrees. Supporting factors include training, financial support, and awareness of the benefits. Key barriers include cost and lack of understanding. The implication of this research is the need for broader training to increase MSMEs' understanding of the potential of digital technology and sustainable business practices. Financial and educational support should also be considered to overcome barriers. The importance of better internet access is also a focus in driving digital technology adoption. Overall, this research provides important insights about the adoption of digital technology and sustainable business models among MSMEs in Karawang. The implications of the results of this research can help formulate further strategies in supporting the positive growth and transformation of MSMEs in the digital era.</p>
<p>This is an open access article under the <a href="https://creativecommons.org/licenses/by-nc/4.0/">CC BY-NC</a> license</p> 	<p><b>Corresponding Author:</b> Wike Pertiwi Faculty of Economics and Business, Universitas Buana Perjuangan Karawang <a href="mailto:wike.pertiwi@ubpkarawang.ac.id">wike.pertiwi@ubpkarawang.ac.id</a></p>

## INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) have a significant role in the country's economy (Glonti et al., 2021), including Indonesia. MSMEs contribute to job creation, economic growth, and income equality. However, the challenges faced by MSMEs cannot be ignored, including global competition, limited number of employees, (Cardon & Stevens, 2004; Coetzer et al., 2019), lack structure organization, management that tends to simple, lack of regularity in organization, lack of effort in manage risk (Lavastre et al., 2012), and limited access to technology, especially in the face of the era of digitalization and changes in consumer behavior. (Skare et al., 2023). In order to strengthen position compete with MSMEs, they can adopt digital technology and embryonic sustainable business models (Kamal et al., 2021). Digital technology has potential big For support MSMEs in diverse aspects, including produce innovation in product And service, manage change source Power man And technology, as well as expand coverage marketing as well as optimizing

business processes (Rusdana et al., 2022; Skare et al., 2023) . Digital platforms operating in various media can be a means for rural MSMEs to market and sell their products, thereby improving their competitive position. (Kamal et al., 2021) . Not only that, digital marketing communication strategies can be applied to introduce MSME products to various parties, which effectively supports increasing their competitiveness. (Khamisah & Kertasari, 2022) . Besides that , digitalization has enabling rural SMEs For apply delivery effective logistics so that their metropolitan partners No own superiority competitive in field logistics (Glonti et al., 2021) .

Significant improvement in implementation digital transformation has increase ability compete from MSMEs (Pratama et al., 2021) . MSMEs that adopt digital technology strengthens Power competition they through innovation in create , propose , deliver , and catch mark (Skare et al., 2023) . Although Thus , there are a number of obstacles that can influence superiority competitive Small Business and Medium (SME) in utilization digital technology . Implementing digital technology has acknowledged as factor important in increase Power competitive , but matter This need presence power skilled work And trained in field technology The stakeholders interests , including SME owners and agency related , necessary realize urgency as well as potential benefit from digital technology , so that created encouragement For adopt change This (Proksch et al., 2021) . Besides that , SME managers also need get ready self For adopt digital technology in effective . This is involving deep understanding about method integrate technology to in operational everyday , managing data efficient , and optimizing business processes with help technology . Without understanding this , implementation digital technology may No will give expected results (Proksch et al., 2021) . However , the challenges more carry on appear If No There is harmony between skills power Work And type digital devices used with a greater vision wide related with digitalization or digital transformation of SMEs. In matter this , it is necessary existence synergy between ability employees , devices hard And device the software used , as well as objective term long from effort digitalization . Success implementation digital technology in increase Power UKM competition will difficult achieved If No There is harmony This (Nguyen et al., 2013) .

Digital technology is not the only one factor affecting development of MSMEs, in fact faced with increasing sustainability challenges, climate change and environmental issues are increasingly driving the importance of adopting sustainable business models that take into account social and environmental impacts. (Bocken & Geradts, 2020) . This is called sustainable business model innovation (SBMI). The implementation of sustainable business models also plays an important role in strengthening the competitiveness of MSMEs. . For example, the Business Model Canvas (BMC) concept can be adopted by MSMEs to identify and apply canvas business model patterns as part of their sustainable development strategy. (Widjajanti et al., 2022) . A system dynamics-based approach can also be used to model and simulate dynamic feedback loop interactions, effect delays, and nonlinear relationships between various factors that contribute to sustainable growth in MSMEs. (Kurniasih et al., 2023) . Moreover, Blockchain technology has the potential to enable new and sustainable business models, while supporting the achievement of the UN Sustainable

Development Goals (SDGs). (Calandra et al., 2023) . Blockchain implementation can be related to cost reduction in the supply chain, making a valuable contribution to the capability and dexterity MSMEs in increasing their competitiveness in volatile market (Iranmanesh et al., 2023) . The Karawang region, as one of the industrial and economic centers in Indonesia, also faces similar challenges. (Setiyani & Rostiani, 2018) . MSMEs in Karawang have a lot of potential to improve the regional economy by increasing MSME productivity (Sari & Santoso, 2020; Setiyani et al., 2023) . However, they need support to be able to adapt to changing times and increase their competitiveness. Therefore, the application of digital technology and the adoption of sustainable business models in Karawang MSMEs are essential to maintain and improve their position in the ever-growing economy. (Setiyani et al., 2023) .

In the context of increasing the competitiveness of MSMEs in Karawang, there are several gaps that need to be addressed: First, many MSMEs in Karawang still have limited knowledge and skills in utilizing digital technology. (Dharta & Chaerudin, 2023) . This gap can hinder the ability of MSMEs to innovate, compete, and market products effectively. Second, limited access to quality internet and adequate digital infrastructure in several areas in Karawang can hinder the implementation of digital technology in MSMEs. (Sari & Santoso, 2020) . Third, although awareness of the importance of sustainable business models is increasing, there are still difficulties in implementing them effectively. (Nursyabani & Rachpriliani, 2023) . MSMEs may face challenges in integrating sustainable practices into their daily operations. Fourth, the lack of a platform for sharing knowledge, experience and collaboration between MSMEs can hinder growth and mutual learning. (Anatan & Nur, 2023) . To address these gaps, this study aims to investigate the potential and benefits of implementing digital technology and adopting sustainable business models in increasing the competitiveness of MSMEs in Karawang. By analyzing the factors that influence the success of implementing digital technology and sustainable business models, it is hoped that this study can provide useful guidance and recommendations for relevant stakeholders.

## METHODOLOGY

### Results Study

an exploratory case study involving 76 MSMEs in Karawang . The main focus of these MSMEs is to improve Power competition with the support of digital technology and business models sustainable . This research was designed on the grounds that currently there is little understanding of how MSMEs adapt their business models in the face of the challenges of competition and digitalization. Most literature focuses more on large companies and does not consider the resource limitations of MSMEs . (Reim et al., 2022) . Therefore, we leverage data from multiple in-depth case studies to provide more comprehensive insights.

At the beginning of the study, we selected four different groups of MSMEs as our study targets. The groups include: Culinary Business , Fashion Business, Agribusiness Business, Industrial MSMEs creative and others. We selected relevant MSMEs by considering the sector, region, and available contacts. The respondents interviewed were selected based on three criteria: 1 ) they must be decision makers ( Managers or UMKM

owners ). 2). Must Work in the UMKM , 3) Working during not enough over 2 years . With this approach, we hope to gain a deeper understanding of how MSMEs face the challenges of internationalization and digitalization, and how they transform their business models to address these challenges.

In this study, efforts were made to ensure the reliability and validity of the results through various steps. Reliability and validity were ensured by collecting responses from various respondents in the survey. The respondents came from various MSMEs who had different perspectives. The use of purposive (non-random/non-probability) sampling was used in interviews with respondents selected based on the criteria mentioned earlier. The sampling process is carried out selectively and adjusted to the predetermined criteria. Respondents who are potentially interviewed are notified via telephone . And come direct on MSMEs about the opportunity to participate in this study. A total of 76 semi-structured interviews were conducted with representatives of industrial MSMEs creative .

## RESULTS AND DISCUSSION

### Results

Following This results interview with MSME owners in Karawang who focus on " Improvement Competitiveness of MSMEs in Karawang Through Digital Technology and Business Models Sustainable ". Interview This aiming For get outlook about How use digital technology and business model implementation sustainable can give impact positive to Power MSME competition in the region Table 1 , is part from results the interview we gave example 5 respondents .

**Table 1.** Example Results Interview

No.	Name of UMKM Owner	Type of business	Use of Digital Technology	Sustainable Business Model	Main Challenges	Suggestions for Improvement
1	US	Muslim Clothing	E-commerce Platforms, Social Media	Eco-Friendly Materials	Competition with big brands	Cooperation between MSMEs for joint marketing and promotion of local products can strengthen our competitiveness.
2	MJ	Snack	Delivery App, Social Media	Recycled Packaging	On Time Delivery	Training in supply chain management and logistics will help us better meet customer demands.
3	BS	Wood Crafts	Instagram, Online Store	Recycling Materials	Capital Limitations	The government can provide access to funding programs or low-interest loans to help develop our businesses

No.	Name of UMKM Owner	Type of business	Use of Digital Technology	Sustainable Business Model	Main Challenges	Suggestions for Improvement
4	SR	Beauty Products	Social Media, E-commerce Platforms	Natural and Chemical Free Ingredients	Competition with Imported Products	Support in overseas marketing and regulations that support local products can help us compete in the global market.
5	AH	Graphic Design Services	Online Portfolio, Online Consultation	Electronic Waste Reduction	Lack of Awareness of the Importance of Design	Educational campaigns about the benefits of high-quality design can help customers understand the added value of our services.

Table 1 provides description that digital technologies , such as e-commerce platforms and social media , play a role important in expand range market . MSMEs also the more implementing a business model sustainable with focus on material friendly environment And recycle repeat . However , the challenges of capital and skills Still there is , and competition with brand big And product import become things to do faced . Cooperation between -MSMEs and support government expected can help overcome obstacle this . Although speak about technology , quality product And service still considered as priority main . Education as well as awareness consumer Also become factor important in increase Power MSME competitiveness . Results study interview in a way Overall can concluded on table 2 below :

**Table 2.** Conclusion in a way overall with amount respondents who answered every points

No	Conclusion	Number of Respondents
1	The majority of MSME owners in Karawang have adopted digital technology in their operations, such as using e-commerce platforms and social media to market products.	68
2	Sustainable business models, such as the use of environmentally friendly materials and recycling practices, have become a focus for most MSMEs in an effort to increase their competitiveness.	57
3	The main challenges faced by MSMEs are limited capital, limited market access, logistics problems, and lack of skilled labor.	72
4	As a solution, some MSME owners are trying to establish partnerships with local raw material producers, develop their own delivery services, and improve workforce training.	45
5	Local governments and related institutions need to provide further support in the form of training, access to financing, and development of better logistics infrastructure.	61

In general overall , through implementation digital technology and business models sustainable , UMKM in Karawang own opportunity big For strengthen position they in an increasingly growing market competitive . With proper support from various parties , steps This can bring impact positive in increase Power competition , growth business , as well as contribution to development sustainable in Karawang. In general summary results related interviews with challenges , digitalization and business models sustainable can made in form table 3 below :

**Table 3.** Analysis challenge And solution

Challenge	Activity Digitalization	Business Model sustainable
<ul style="list-style-type: none"> <li>• Limited Access and Knowledge of Technology</li> <li>• Limited Digital Infrastructure</li> <li>• Data Security and Privacy</li> <li>• Implementation Costs</li> <li>• Cultural and Mindset Change</li> </ul>	<ul style="list-style-type: none"> <li>• Technology Training</li> <li>• Local E-commerce</li> <li>• Digital Financial Solutions</li> <li>• IoT Implementation</li> <li>• Technology Mentorship</li> <li>• Mobile Application</li> <li>• Data analysis</li> <li>• Digital Promotion</li> </ul>	<ul style="list-style-type: none"> <li>• Business Collaboration</li> <li>• Government Partnership</li> <li>• Continuing Education</li> <li>• Sustainable Production</li> <li>• Supply Chain Management</li> <li>• Product Diversification</li> <li>• Environmental Reporting</li> <li>• Consumer Awareness</li> <li>• Policy Support</li> </ul>

On table 3 can known that digitalization own potential big For present progress And growth in world business , but Also accompanied by a number of challenges that need to be overcome overcome . Challenges the covering limitations access And knowledge technology , limited digital infrastructure , security And data privacy , costs implementation , as well as change culture and the mindset inside organization . For overcome challenges this , some solution And activity digitalization can adopted . This involving investment in training technology for employees , local e-commerce development For expansion business , implementation solution digital finance , utilization of the Internet of Things ( IoT ), and technology mentorship for new business in digital field . In addition that , data analysis , mobile applications , and digital promotion too can increase interaction with customer And understanding about trend market . For achieving a sustainable business model , collaboration business , partnership government , and education sustainable in the digital field and sustainable become key . Production practice friendly environment , management chain efficient supply , diversification products , as well as reporting transparent environment Also contribute on sustainable business models . Awareness consumer about practice sustainable as well as support policy government participate push success in face



challenge digitalization . In frame developing a sustainable business model is important For integrate digital solutions with objective social , environmental , and economy term long . With Thus , business can reach sustainable growth And contribute on development inclusive economy And friendly environment in the digital era. For to clarify table , can made picture as following :

**Figure 1.** Challenges And solution For Power UMKM competition

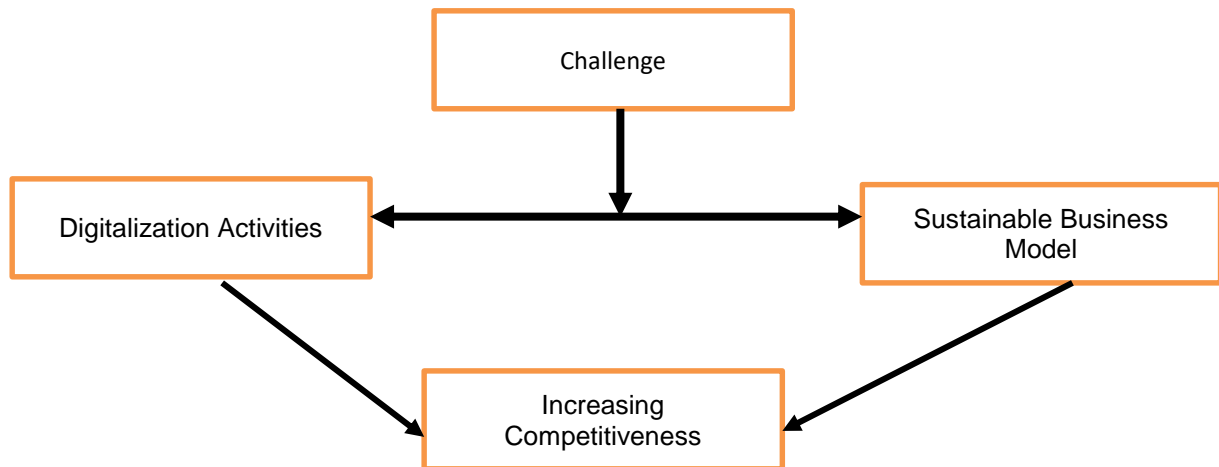


Figure 1, gives description that in the midst of the digital era that continues developing , Micro , Small and Medium Enterprises Medium (SMEs) face to face with challenge new And significant opportunities . Challenges the covers limitations access And understanding technology , digital infrastructure that has not been even , data security , cost implementation , as well as change culture in organization . However , with apply steps proper digitalization , SMEs can overcome challenge This And building a business model sustainable that supports growth term long . The impact of digitalization and sustainable business models on the competitiveness of MSMEs is enormous. By adopting digital technology, MSMEs can optimize operational efficiency, improve product and service quality, and reduce production costs. This allows MSMEs to compete with large-scale businesses, even at the global level. Sustainable business models that prioritize social and environmental responsibility also improve brand image and appeal to consumers who are increasingly concerned with sustainable issues.

## Discussion

### Increasing Adoption of Digital Technology by MSMEs in Karawang

The results of this study provide an interesting picture of the adoption of digital technology among MSMEs in the Karawang area. The data collected indicates that the majority of MSMEs have taken positive steps by integrating digital technology into various aspects of their operations. Most of them, reaching more than 70% of the total MSMEs involved in the study, have succeeded in creating an online presence through the use of social media and e-commerce platforms. This step has undoubtedly helped MSMEs to reach a wider market and increase their competitiveness in the digital era. However, in-depth

monitoring of the condition of MSMEs in Karawang, it was also revealed that there is still a group of MSMEs that face obstacles in adopting digital technology. These obstacles are mainly related to limited access to the internet which can hinder the process of adapting digital technology for them. Although the majority have succeeded in moving forward, it is important not to forget this group that requires more attention in an effort to achieve full digital transformation.

In order to ensure that the adoption of digital technology can take place evenly and sustainably among MSMEs in Karawang, a number of strategic steps need to be taken: First, training and education on digital technology need to be intensified. By providing broader and more in-depth training to MSME owners, they will have a better understanding of the potential benefits of digital technology and how to integrate it effectively into their business operations. Second, technological infrastructure must be significantly improved. Wider, more stable, and affordable internet access must be a priority in regional development plans. By ensuring better connectivity, MSMEs that currently face difficulties in accessing digital technology will have a greater chance of adapting. Third, providing government support and incentives to MSMEs to develop and utilize e-commerce platforms needs to be a focus. By providing financial assistance or other incentives, local governments can help encourage MSMEs to build and maintain a strong online presence. Finally, encouraging collaboration between MSMEs and local technology companies and startups can be key to helping MSMEs overcome technical and operational challenges. Such collaboration will enable MSMEs to access technology solutions that suit their needs, thereby accelerating their adaptation to an increasingly digital business environment. By taking these steps, it is hoped that MSMEs in Karawang can experience a significant increase in the adoption of digital technology, make a greater contribution to regional economic growth, and increase their competitiveness in an increasingly global and digital market.

#### **Implementation of Sustainable Business Models by MSMEs in Karawang**

Based on the research, the aspects of implementing Sustainable Business Models by MSMEs in Karawang, Indonesia, can be described as follows. Around 60% of MSMEs in this region have realized the importance of considering environmental impacts in their business activities. However, the actual implementation rate of sustainable practices is still at 40%, which includes steps such as reducing waste and using environmentally friendly materials. To encourage more MSMEs to adopt a sustainable business approach, several strategic steps can be taken: First, education and awareness should be the main focus. By initiating educational programs and awareness campaigns, small business owners can be given a deeper understanding of the long-term benefits that arise from sustainable business practices. In doing so, awareness of the positive impacts on the environment and society can inspire real action.

Second, financial assistance needs to be highlighted as a crucial factor. Providing financial support or incentives to MSMEs interested in implementing sustainable practices will help overcome initial cost barriers that may arise in the implementation phase. This step can open up new opportunities and encourage MSMEs to be more proactive in adopting positive changes. Next, it is important to conduct environmental impact mapping. MSMEs



need help in measuring and understanding the environmental impacts of their operations. This will help them identify areas where improvements are needed, and allow for more targeted and effective strategy development. Finally, collaboration and networking are essential elements in the journey towards sustainable business. Fostering collaboration between MSMEs and research institutions, environmental NGOs, and similarly focused organizations will facilitate the exchange of knowledge and experiences. By building such networks, MSMEs will gain wider access to resources, mentorship, and opportunities to improve the quality of their sustainable business practices. Overall, encouraging the adoption of Sustainable Business Models by MSMEs in Karawang requires a holistic approach involving education, financial support, environmental impact mapping, and strong collaboration. With these steps, it is hoped that MSMEs can contribute significantly to environmental sustainability while still advancing their business growth.

### **Adoption of Digital Technology and Positive Impact on Sustainable Business Models**

The adoption of digital technology has brought significant positive impacts to MSMEs in various aspects. One of the main things that can be seen from the analysis results is that MSMEs that actively adopt digital technology experience a surge in their market share and turnover. Through the use of e-commerce platforms and online promotional strategies, MSMEs can reach wider customers and generate significant sales increases. Not only that, the use of digital technology also allows MSMEs to optimize operational processes, reduce costs, and increase overall productivity.

In addition to the impact on market growth, the integration of digital technology also contributes positively to the development of sustainable business models. MSMEs that successfully combine digital technology with sustainable practices report an improvement in their brand image. In addition, the adoption of sustainable business practices also increases customer trust. This is very important because customers are increasingly attracted to brands that care about environmental issues and business ethics. Another advantage is better access to data and analytics. By leveraging digital technology, MSMEs can collect and analyze data on customer behavior and market trends. This allows for smarter decision-making in designing marketing strategies, developing products, and optimizing inventory management.

Overall, the adoption of digital technology not only provides a boost to the growth of MSME businesses through increased sales and operational efficiency, but also strengthens the foundation of sustainable business models. The combination of digital technology and sustainable practices provides a great opportunity for MSMEs to expand their positive impacts in terms of the economy, environment, and society.

### **Supporting Factors and Barriers to the Adoption of Digital Technologies and Sustainable Business Models**

Supporting and inhibiting factors play a crucial role in driving the adoption of digital technology and sustainable business models among MSMEs. In an effort to spur the adoption of digital technology, there are several supporting factors that can play an important role. Training provided to MSME owners, as well as support from family and business partners, pave the way for technology integration in daily operations. The

motivation to improve operational efficiency and achieve greater profits is also a strong driver for digital technology adoption. In addition, overcoming major barriers such as limited internet access is essential. Collaboration with internet service providers and related institutions is essential to achieve wider and more reliable access, ensuring that no MSME is left behind in the digitalization journey.

In the context of sustainable business models, awareness of environmental issues is an important foundation. Efforts to raise this awareness need to be carried out consistently through educational campaigns and easily accessible information. However, to overcome the barriers associated with adopting sustainable business models, financial support and training also play an important role. MSMEs often face cost barriers and a lack of understanding of the long-term benefits of sustainable practices. Financial support can help reduce the burden of initial costs and encourage a smoother transition. In addition, training tailored to the needs of MSMEs will help overcome the lack of knowledge and skills that may be barriers to implementing sustainable business practices.

Overall, understanding these enablers and barriers is a key step in accelerating the adoption of digital technologies and driving the shift towards sustainable business models among MSMEs. Collaborative efforts involving the government, educational institutions, the private sector, and the wider community will be an important foundation in creating an environment that supports positive growth and transformation for MSMEs.

## CONCLUSION

The results of this study indicate that the adoption of digital technology and sustainable business models have a positive impact on increasing the competitiveness of MSMEs in Karawang. MSMEs that are able to overcome the challenges of technology access and implement sustainable business practices tend to experience improvements in aspects such as market share, turnover, brand image, and customer trust. The supporting factors and barriers identified can be a guide for MSMEs and related stakeholders in formulating more effective strategies in facing changing times and increasing competitiveness.

### Implications Study

The results of this study have important theoretical implications in the context of developing concepts and theories related to MSMEs, digital technology, and sustainable business models. First, this study enriches the understanding of the role of digital technology in improving the competitiveness of MSMEs. This finding supports the literature showing that the implementation of digital technology can have a positive impact on market share, operational efficiency, and customer interaction. Second, this study provides new insights into the adoption of sustainable business models by MSMEs. The theoretical implication of this finding is that awareness of social and environmental responsibility is deepening among MSMEs. This study also shows that MSMEs that successfully integrate sustainable business practices experience improved brand image and customer trust.

The practical implications of the results of this study can be felt by various parties, including MSMEs, local governments, educational institutions, and related business and industrial actors. First, for MSMEs in Karawang, this study provides a deeper understanding

of the potential for implementing digital technology and sustainable business practices. MSMEs can use these findings as a guide to develop more effective strategies to improve their competitiveness. Second, local governments and educational institutions can use the results of this study to design training programs that are tailored to the needs of MSMEs related to digital technology and sustainable business practices. This can facilitate the transfer of knowledge and skills needed for MSMEs to succeed in implementing these practices. Third, business actors and related industries can see the results of this study as an opportunity to support MSMEs in developing technological and sustainable capabilities. They can consider opportunities to provide technological solutions and support in developing sustainable business models.

### Research Limitations and Future Research Directions

The limitations of this study are the limited sample size and focus on the Karawang area. Therefore, generalization of the findings to a national scale may require further research with a larger sample and wider regional diversity. In addition, further research can go deeper in analyzing the specific impacts of various types of digital technologies and sustainable business models. Further research can involve longitudinal analysis to see the development of MSMEs in the long term after the adoption of digital technologies and sustainable business models. The study can also involve a deeper understanding of the social and cultural factors that influence the adoption of sustainable technology and business practices in various local contexts.

### REFERENCES

- Anatan, L., & Nur. (2023). Micro , Small , and Medium Enterprises ' Readiness for Digital Transformation in Indonesia. *Economic Inquiry*, 11(56).
- Bocken, N. M. P., & Geradts, T. H. J. (2020). Barriers and drivers to sustainable business model innovation : Organization design and dynamic capabilities. *Long Range Planning*, 53(4), 101950. <https://doi.org/10.1016/j.lrp.2019.101950>
- Calandra, D., Mas, F. D., Secinaro, S., Bagnoli, C., & Massaro, M. (2023). The link between sustainable business models and Blockchain: A multiple case study approach. *Business Strategy and the Environment*, 32(4), 1403–1417. <https://doi.org/10.1002/bse.3195>
- Cardon, M. S., & Stevens, C. E. (2004). Managing human resources in small organizations: What do we know? *Human Resource Management Review*, 14(3), 295–323. <https://doi.org/10.1016/j.hrmmr.2004.06.001>
- Coetzer, A., Inma, C., Poisat, P., Redmond, J., & Standing, C. (2019). Does job embeddedness predict turnover intentions in SMEs? *International Journal of Productivity and Performance Management*, 68(2), 340–361. <https://doi.org/10.1108/IJPPM-03-2018-0108>
- Dharta, F. Y., & Chaerudin, D. R. (2023). Using Digital Marketing Communications to Boost SMEs ' Local Economic Growth in Karawang Regency. *Proceedings of the International Conference on Economic, Management, Business and Accounting, ICEMBA 2022*, 17 December 2022, Tanjungpinang, Riau Islands, Indonesia, 3.

- <https://doi.org/10.4108/eai.17-12-2022.2333225>
- Glonti, B. V., Manvelidze, R., & Surmanidze, I. (2021). The Contribution of SME to Regional Economic Development: On example of Adjara Autonomous Republic. *European Journal of Sustainable Development*, 10(1), 513–526. <https://doi.org/10.14207/ejsd.2021.v10n1p513>
- Iranmanesh, M., Maroufkhani, P., Asadi, S., & Ghobakhloo, M. (2023). Computers & Industrial Engineering Effects of supply chain transparency , alignment , adaptability , and agility on blockchain adoption in supply chain among SMEs. *Computers & Industrial Engineering*, 176(January 2022), 108931. <https://doi.org/10.1016/j.cie.2022.108931>
- Kamal, T., Ruscitasari, Z., Hendriana, Y., & Rafail, W. R. (2021). Multiplatform-Based Digital Market Designs as Marketing and Sales Media of MSME Products in Pleret Village. *Telematika: Jurnal Informatika Dan Teknologi Informasi*, 18(3), 334–344. <https://doi.org/10.31515/telematika.v18i3.6004>
- Khamisah, N., & Kertasari, S. F. (2022). Utilization of E-Commerce and Digital Marketing to Increase Value-added Products for MSMEs and Home Businesses in Kerinjing Village. *Sricommerce: Journal of Sriwijaya Community Services*, 3(1), 57–64.
- Kurniasih, J., Abas, Z. A., Asmai, S. A., & Wibowo, A. B. (2023). System Dynamics Approach in Supporting The Achievement of The Sustainable Development on MSMEs: A Collection of Case Studies. *(IJACSA) International Journal of Advanced Computer Science and Applications*, 14(6), 990–998.
- Lavastre, O., Gunasekaran, A., & Spalanzani, A. (2012). Supply chain risk management in French companies. *Decision Support Systems*, 52(4), 828–838. <https://doi.org/10.1016/j.dss.2011.11.017>
- Nguyen, T. H., Newby, M., & Macaulay, M. J. (2013). Information Technology Adoption in Small Business: Confirmation of a Proposed Framework. *Journal of Small Business Management*, 53(1), 1–21. <https://doi.org/10.1111/jsbm.12058>
- Nursyabani, N., & Rachpriliani, A. (2023). International Journal of Social Science And Human Research The Effect of Green Innovation and Sustainability Report on the Financial Performance of MSMEs in Karawang. *International Journal of Social Science And Human Research*, 06(08), 4844–4853. <https://doi.org/10.47191/ijsshr/v6-i8-32>
- Pratama, F. C., Purnomo, A., & Aziz, N. A. (2021). Digital Transformation in Small Medium Enterprises : Mapping of the Knowledge Base. *International Conference on Industrial Engineering and Operations Management Monterrey*, 2214–2223.
- Proksch, D., Rosin, A. F., Stubner, S., Pinkwart, A., Proksch, D., Rosin, A. F., Stubner, S., & Pinkwart, A. (2021). The influence of a digital strategy on the digitalization of new ventures : The mediating effect of digital capabilities and a digital culture. *Journal of Small Business Management*, 00(00), 1–29. <https://doi.org/10.1080/00472778.2021.1883036>
- Reim, W., Yli-viitala, P., Arrasvuori, J., & Parida, V. (2022). Journal of Innovation. *Journal of Innovation & Knowledge*, 7(3), 100199. <https://doi.org/10.1016/j.jik.2022.100199>
- Rusdana, N. R., Choirani, S. J., & Friska, A. S. (2022). Digital Marketing Communication Strategy for Micro , Small and Medium Enterprises ( MSMEs ) in Business Competition.

- International Journal of Research and Applied Technology, 2(1), 163–168.
- Sari, R. P., & Santoso, D. T. (2020). Readiness Factor Identification on Kabupaten Karawang SMEs towards Industry 4 . 0 Era. *Jurnal Teknik Industri*, 22(1). <https://doi.org/10.9744/jti.22.1.65-74>
- Setiyani, L., Andreansyah, D., Gunawan, R., & Yusuf, A. M. (2023). Analysis Adoption e-Commerce SMEs Using Innovation Diffusion Theory Framework ( Case Report : Karawang District ). Atlantis Press International BV. <https://doi.org/10.2991/978-94-6463-076-3>
- Setiyani, L., & Rostiani, Y. (2018). Analysis of E-Commerce Adoption by SMEs Using the Technology - Organization - Environment ( TOE ) Model : A Case Study in Karawang , Indonesia. *International Journal Of Science, Technology & Management*.
- Skare, M., De, M., Obesso, M. De, & Ribeiro-navarrete, S. (2023). International Journal of Information Management Digital transformation and European small and medium enterprises ( SMEs ): A comparative study using digital economy and society index data. *International Journal of Information Management*, 68(October 2022), 102594. <https://doi.org/10.1016/j.ijinfomgt.2022.102594>
- Widjajanti, K., Prihantini, F. N., & Wijayanti, R. (2022). International Journal of Sustainable Development and Planning Sustainable Development of Business with Canvas Business Model Approach: Empirical Study on MSMEs Batik Blora , Indonesia. *International Journal of Sustainable Development and Planning*, 17(3), 1025–1032.