



Business sustainability challenges in the face of technology and digital literacy: a study of Micro, Small, and Medium Enterprises

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ABSTRACT

The study investigates Micro, Small, and Medium Enterprises (MSMEs) within the Tanjung Lesung tourism sector in Banten Province. It focuses on the application of digital literacy for business sustainability in the contemporary technological landscape. The research employed a qualitative descriptive research method involving observation and in-depth interviews. Data was collected through observation and in-depth interviews. Analysis involved data reduction, display, and conclusions drafting. The findings underscore the pivotal role of digital technology in fostering business continuity. The study emphasizes MSMEs' pursuit of sustainability through tailored strategies, including the attainment of sustainability certifications to bolster market presence, particularly in eco-conscious segments.

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1. INTRODUCTION

National development is an endeavour with the main goal of improving the capabilities of society in order to shape a better future and produce positive changes from previous conditions (Rondinelli, McCullough, and Johnson 1989). This process involves the active involvement of both the government and the community (Irvin and Stansbury 2004). While the community has the main role as the actor, the government has the responsibility to guide, protect, and create a conducive climate to support national development holistically (Kusumasari, Alam, and Siddiqui 2010).

In the era of globalisation, successful development relies heavily on the economic sector (Narula and Dunning 2000). Economic development is one of the main indicators of national development because it plays an important role in increasing people's income and welfare equally (Anand and Ravallion 1993). The main objective of economic development is to increase the

amount of goods and services, as well as employment opportunities for the community (Roseland 2000). The implementation of economic development requires the participation of all levels of society and government through regional development initiatives and the optimisation of all available resources (Stimson, Stough, and Roberts 2006).

The key role of the community in economic development, especially in Micro, Small and Medium Enterprises (MSMEs), has a very high strategic role (Rinaldi et al. 2022). This is possible considering the contribution of MSMEs in the Indonesian economy. Based on data from the Investment Coordinating Board (BKPM), the contribution of MSMEs to Gross Domestic Product (GDP) in 2020 is 61.97% or around IDR 8,500 trillion, making MSMEs a major player in economic development that cannot be ignored. Another advantage of MSMEs lies in the utilisation of natural resources and labour-intensive, especially in a number of economic sectors, including agriculture, trade, fisheries, and various other sectors (Wairimu 2015). In addition, MSMEs also contribute dominantly to labour absorption and national income. Data from the Ministry of Industry shows that MSMEs managed to absorb 97.22% of the labour force, an increase from the previous 96.99%.

MSMEs are a type of business unit grouped by the number of workers consisting of micro businesses, small businesses, and medium businesses, as defined by the Central Bureau of Statistics. Micro, Small, and Medium Enterprises (MSMEs) have long been recognised as key players in the economy, especially in efforts to address poverty and unemployment. Nonetheless, the MSME sector is still faced with a number of challenges such as financial issues, human resources, marketing, the development of modern technology continues to be an obstacle in the effort to optimise business growth (Singh, Khamba, and Nanda 2018).

Prakoso (2020) revealed that knowledge of financial aspects has an important role for MSME business owners so that performance can improve which encourages business progress (Rohayati et al. 2023). Financial literacy helps medium-sized businesses to optimise the use of financial resources, manage risks, and achieve sustainable growth. Therefore, financial literacy is not only a must for business people but also a fundamental basis that includes maintaining business continuity and avoiding financial problems (Wallace and Webber 2017). A strong knowledge and understanding of financial aspects encourages MSME business owners to more effectively manage finances, face financial challenges, and make wise decisions in a business context (Susan 2020).

In the current era of global competition, financial literacy utilises the role of technology to facilitate access to financial information (Gomber et al. 2018). The use of technology in financial literacy allows easier access to financial information such as real-time transaction monitoring and financial data analysis for better decision making (D'Acunto and Rossi 2023). Therefore, in addition to financial literacy, mastery of technology is also needed so that MSMEs are able to compete in the current industrial era (Irman, Budiyo, and Suwitho 2023). In line with the importance of technology mastery for MSME business owners, digital literacy is becoming increasingly essential to ensure that individuals and organisations can take full advantage of the potential offered by the digital world (Erlanitasari, Rahmanto, and Wijaya 2020).

Digital literacy is the ability of an individual or organisation to use, understand and interact with digital technologies, forming the basis for better financial and business management in a financial context (Mohammadyari and Singh 2015). Digital literacy indicators can be grouped into several categories, including operational and technical skills, digital information and communication literacy, and the ability to create digital content and digital strategies (Iordache, Mariën, and Baelden 2017). This research attempts to make a new analytical contribution in the context of sustainable business development of MSMEs in terms of the content of digital literacy, which currently manifests in the ability to follow and understand digital trends, reach consumers online, and participate in the technology-driven global business ecosystem.

A number of previous studies have highlighted the positive impact of digital literacy on MSMEs. For example, Van Laar, Van Deursen, Van Dijk, & De Haan (2019) emphasised the importance of 21st century digital skills for MSMEs. Meanwhile, Oluwakemi's (2019) research on small business

owners found that digital literacy has a significant impact on the success of small business owners. These results are in line with the results of Sariwulan & Suparno's (2020) research which revealed that digital literacy has a significant positive impact on MSME performance. The results showed that the higher a person's level of digital literacy knowledge, the better the performance of these MSMEs (Rakib et al. 2024).

But in reality, data from the Ministry of Tourism and Creative Economy shows that only around 10.25 million MSMEs in Indonesia are connected to digital platforms. This figure indicates that only around 16% of MSMEs are capable of running businesses online, highlighting the low level of digital literacy among MSMEs in Indonesia (Suryani et al. 2022). As a result, MSMEs with a lack of digital literacy may experience a decline in their competitiveness (Putra, Tahir, and Hasan 2023). Without adequate digital literacy, MSMEs may not be able to optimise the full potential of available technologies, such as online presence, e-commerce, and other digital tools, thus reducing competitiveness and operational efficiency. Therefore, a lack of digital literacy may hinder MSMEs' access to international business opportunities, reducing competitiveness on an increasingly connected global stage.

Tanjung Lesung Tourism Area, Banten, offers alluring beach charm and great tourism potential (A. Setiawan et al. 2023). However, the challenges of limited telecommunications infrastructure and low levels of digital literacy around the area are significant barriers to the growth of micro, small, and medium-sized businesses that depend on the tourism industry (A. B. Setiawan et al. 2023). Limited internet access and a lack of understanding of digital technology may prevent local entrepreneurs from capitalising on online marketing opportunities and technology-based services to improve the competitiveness and sustainability of their businesses in this digital era.

Based on the description in this background section, the author would like the results of this study on challenges to provide in-depth insights into how MSMEs can overcome barriers in adopting technology and digital literacy to improve their business sustainability in this ever-changing era. Many MSMEs may not realise the potential benefits of technology and digital literacy or lack sufficient understanding to integrate them in their operations (Bagale et al. 2021). Lack of education and awareness can be a barrier to dealing with technological change (Ertmer 1999).

2. RESEARCH METHOD

This research uses a descriptive qualitative approach method with the aim of describing in more depth digital literacy and its impact on the sustainability of micro, small and medium enterprises (MSMEs) in Tanjung Lesung Tourism, Banten. The qualitative approach was chosen to provide a more detailed picture of how sustainability challenges are faced by MSMEs in the face of technology and digital literacy. Another reason supporting this research method is because the qualitative approach is used to provide a more detailed description of phenomena that are difficult to explain in other ways, such as explaining work processes, detailing mathematical formulas, describing various concepts, identifying characteristics of objects and individuals, presenting data in graphic form, explaining certain cultures and procedures, and other aspects that require detailed explanation.

The focus of this research lies on answering problems in an in-depth understanding of the challenges and impacts of a growing technological sophistication that will have an impact on digitalisation on the sustainability of MSMEs in Tanjung Lesung Tourism, Banten. In the context of qualitative research, respondents or research subjects are referred to as informants, namely people who provide information related to the data desired by researchers, namely related to the sustainability challenges faced by MSMEs. Qualitative research subjects in this context are MSME players in Tanjung Lesung Tourism, Banten who are expected to provide insights and experiences related to digital literacy and the sustainability challenges faced. The framework used in this research as well as a description of the indicators used as a measuring tool for the analysis material to be studied.

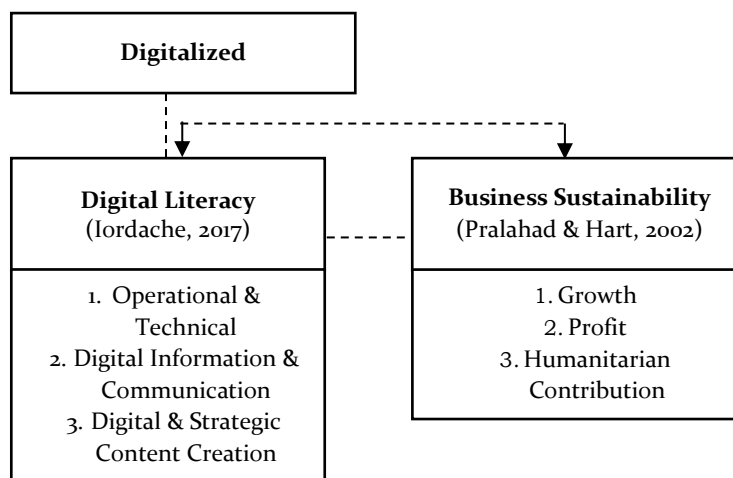


Figure 1. Framework of thought scheme

Based on the stages of data analysis in the figure below, data was obtained from in-depth interviews using a structured approach. Therefore, the data was collected and analysed simultaneously.

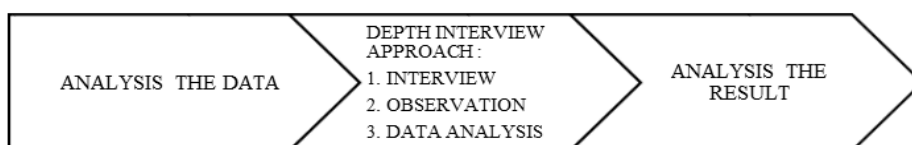


Figure 2. Data analysis stages

In-depth interviews are utilized to collect data using the empowerment model, followed by analysis. Subsequently, the analysis involves comparing the results with previous research and theoretical frameworks, and finally, a plan is devised to collect empirical data from each study group through the analysis. The criteria and characteristics of the informants obtained are as follows:

Table 1. Identity of informants (Culinary Business Actors in Tanjung Lesung Tourism Banten)

No	Name	Age (Years)	Gender	Last education	Position
1	AW	28	Female	S1	Traditional Food Business Owner/Owner.
2	RC	36	Male	S1	Owner/Business Owner of Coffee Shop.
3	SW	32	Female	SMA	Owner of a roadside snack stall.

Source: Primary Data (2023)

3. RESULTS AND DISCUSSIONS

Based on the research conducted, this research makes several questions that have been asked through the dept interview approach. The questions are as follows:

Table 2. An overview of data from the in-depth interview approach

NO	QUESTION	ANSWER
1.	Do you feel you have enough digital knowledge in running a business in Tanjung Lesung Tourism Area?	<i>"I feel very inhibited in keeping up with the times, especially because my age makes it difficult to learn the science of technology in running my business. Nowadays there are many who are already selling online but I still sell as usual, even so the benefits obtained in selling in this tourist area are no longer like the first time I sold."</i>
2.	How does the low level of digital literacy around the region affect the online marketing and sales strategy for your business?	<i>"The low level of digital literacy makes it difficult for us to capitalise on the potential of online marketing and sales. Many local customers are not familiar with online purchasing or using food ordering apps, reducing the number of customers we can reach through digital platforms."</i>
3.	What strategies have you implemented to overcome the challenges of technology and digital literacy in your business in Tanjung Lesung Tourism Area?	<i>"We have endeavoured to improve digital literacy among our employees by providing training on the use of digital technology. In addition, we are also actively looking for alternative solutions, such as utilising mobile networks or providing free internet access for customers to make online transactions easier."</i>
4.	Do you think that MSMEs around this tour need a long and short-term strategy in order to survive in this technological era?	<i>"Of course, we would love to have parties who want to help us grow, both from the private sector and from the government. This is so that we can also help this tourist spot grow through our efforts."</i>

3.1. Analysis of Tanjung Lesung Overview

Tanjung Lesung is located in Pandeglang Regency, Banten Province. By issuing Government Regulation No. 26 of 2012 on the Tanjung Lesung Special Economic Zone (SEZ), which is designated as an integrated tourism area, the central government wants to improve tourism as a competitive tourist destination worldwide by increasing tourist visits, length of stay, and spending. Media Centre News (Thursday, 21 April 2016). Tanjung Lesung, located 170 km from Jakarta, is referred to as a paradise on the West Coast of Java Island due to its natural beauty, diversity of flora and fauna, and outstanding culture. This SEZ was first built by Jababeka Group after Morotai SEZ. In addition, Tanjung Lesung is the first tourism SEZ that has international standard infrastructure. Therefore, PT Banten West Java TD, a subsidiary of Jababeka Group, introduced Tanjung Lesung SEZ with a new vision called "Seaside Township". This change is part of Jababeka Group's effort to increase its corporate value by changing its goal to build a new township in Indonesia. Tanjung Lesung offers a wide range of attractive advantages in investing, especially with the construction of a number of infrastructure. Two major infrastructure projects that are being developed in Tanjung Lesung are South Banten airport and the Serang - Panimbang toll road in accordance with Presidential Decree No. 3 Panimbang toll road in accordance with Presidential Regulation No. 3 Year 2016.



Source: tanjunglesung.com

Figure 3. Lokasi Tanjung Lesung

Tanjung Lesung has advantages among others: Tanjung Lesung on the west coast of Java Island located in the province of Banten, a young province that is full of potential, has an exceptional location that offers beautiful landscapes and seascapes views of the sea. The beaches of this western part are among of the archipelago's leading tourist areas. Java has an impressive range of natural and such as Ujung Kulon, Mount Krakataoa, Ethnic Baduy, Panaitan Island and Peucang Island. There are many beautiful tourism locations around the Tanjung Lesung SEZ that will become a new tourist destination. Tanjung Lesung occupies a natural peninsula on the west coast of West Java and borders the Sunda Strait. Tanjung Lesung is a development that offers various investment opportunities. With potential location that the reasons why so many MSME owners want to sell in Tanjung Lesung.

3.2. Strategies to increase digital literacy awareness for MSMEs business Tanjung Lesung Tourism Banten

Human life has benefited greatly from the advancement of digital technology, which can overcome the limitations of time and space by bringing all spaces closer together, as if there is no barrier between one place and another. There are many examples that show how much of an impact digital technology advancements have had on human life in various fields, including online transport and buying and selling, distance learning, digital business through various platforms and marketplaces, and many more. MSMEs can develop into economic powerhouses by using digital technology-based marketing concepts. Social media is the easiest digital marketing tool to use in the development of small and medium-sized enterprises (MSMEs). In fact, social media allows MSME businesses to promote their products to millions of people while connecting new customers.

The MSME community most often uses social media to market online, which is the first step towards digital transformation, as this medium allows everyone easy access. As MSME businesses expand towards long-term goals and have a wider market reach, social media may no longer be relevant as a digital marketing tool. As a result, it will be important for MSME players to start using various e-commerce platforms and digital marketplaces to increase trust and expand their network. Based on the results of in-depth interviews conducted in this study, several informants admitted that they still did not understand digital literacy and also felt that currently it is very difficult to make their business grow due to not knowing the use of the internet or the basics of information and communication

technology. This research is in line with the fact that MSMEs are often faced with limited resources, including time, money and labour. The main reason that is actually an obstacle in learning a digital literacy is that MSME actors are busy with daily operations, only focus on one aspect and find it difficult to allocate time and resources to learn technological literacy.

This research is in line with observations made by Setiawan et al. (2021) on Digital Literacy Education: Assistance for Digital Transformation of Sukabumi Pakidulan MSME Actors explained that MSME actors really need to be able to improve digital literacy in order to be able to maximise digital media to develop their business, but unfortunately there are still many who do not intend to learn this, it can be proven if a business does not show rapid progress every year. Opinions by Murti et al., (2022) rapid and continuous technological developments can make some MSME actors feel overwhelmed or unsure about which technologies are most relevant and useful for their business. Information technology is an essential element for cultural, economic, political and social transformation and social transformation. Digital literacy is the ability to use information and communication technologies to find, evaluate, create, and communicate to find, evaluate, create and communicate information, which requires cognitive and technical skills. information, which requires both cognitive and technical skills (Edward, 2023). The results of observations in this study also saw the phenomenon that some MSME players may feel uncomfortable or even afraid of facing technology.

Fear of mistakes or inability to use new technology can be a barrier. The results of these observations are also the same as those found in Angeles' research (2022). In addition to fear and lack of intention, some MSME actors may view technological literacy as an expensive investment, especially if they see it as an expense that does not immediately generate instant benefits. According to Routray (2021), the purpose of digital literacy literacy is to increase the ability to make adjustments in carrying out life, interaction and socialising. adjustments in running life, interacting and socialising in a digital society. Digital literacy is an ability that suits individuals to live, learn and co-operate in a digital society. If that awareness will never be present, of course, these MSME players will sooner or later be threatened with bankruptcy. Sommer (2021) explains that digital literacy has become a very important aspect for MSME players to master in this era to welcome the 21st century generation Z (Gen-Z) where digital markets will occur more massively. In addition, the existence of digital literacy of MSMEs makes it possible to realise the digital transformation of MSMEs in an even way so that it has an impact on the stronger support of the national economy massively. Based on the description of several theories that have been linked to this research along with the results of observations with informants, this research makes a strategy that can be used in contributing to science, namely, as follows

To enhance digital literacy awareness among UMKM entrepreneurs, several strategies can be employed. Firstly, UMKM entrepreneurs should focus on enhancing their financial literacy, as it has been found to positively impact business decision-making and financial management, leading to sustained business growth and long-term sustainability (Aribawa, 2016). Additionally, the utilization of digital marketing communication strategies can help UMKM entrepreneurs reach their target market and increase sales, thereby improving business performance (Febriyanto & Arisandi, 2018). Digital marketing also facilitates meeting consumer needs and accessing product information, which is essential for UMKM businesses (Asnawiyah et al., 2022). Furthermore, the optimization of digital media usage, digital marketing, and product branding can enhance content creation, promotion, and serve as an alternative marketing platform for UMKM entrepreneurs (Raharja & Natari, 2021). Moreover, the implementation of national financial literacy and inclusive finance strategies can contribute to the growth, stability, and poverty reduction of UMKM entrepreneurs, ultimately leading to economic development and reduced inequality (Arisa, 2022). Additionally, providing UMKM entrepreneurs with digital marketing training and collaborating with local governments for digital marketing-based empowerment activities can help them leverage digital marketing effectively (Mukhlison et al., 2022). Furthermore, educating and training UMKM entrepreneurs in IT-based business strategies can enhance their business performance and IT utilization (Rianto & Woestho,

2022). In addition, UMKM entrepreneurs should focus on improving their financial literacy, understanding basic accounting, effective financial management, accessing bank loans, and utilizing financial facilities to ensure the sustainability of their businesses. Furthermore, empowering UMKM entrepreneurs with economic literacy can drive creativity and resilience, enabling them to adapt and sustain their businesses in challenging times. Overall, the strategies to enhance digital literacy awareness among UMKM entrepreneurs encompass financial literacy, digital marketing utilization, national financial strategies, and IT-based business strategies. These strategies aim to improve business decision-making, financial management, market reach, and overall business performance, ultimately contributing to the sustainability and growth of UMKM businesses.

3.2. Strategies to increase digital literacy awareness for MSMEs business Tanjung Lesung Tourism Banten

Sustainable tourism is becoming increasingly important due to the recognition that the tourism industry can have a significant impact on the local environment, culture and economy. A sustainable tourism strategy aims to protect natural diversity and the local environment. By implementing environmentally friendly practices, such as good waste management, protection of conservation areas, and sustainable use of resources, tourism can help maintain natural beauty and ecosystems. The results of the interview with Rizky Cahyadi explained that MSME players in Tanjung Lesung get business assistance so that they can help promote to people. This is also the result of research, namely, there is still a lack of assistance to parties who help MSME business actors in Tanjung Lesung even though this place has high potential to be visited very often, it is a shame if there is no progress by these business actors.

Why is a strategy needed in developing MSMEs because with a sustainability strategy it becomes an exposure in the future what needs to be done, what types of actions are in line with their business in this technological era. Sustainable strategies is essential for various reasons, and it plays a crucial role in ensuring the long-term viability of tourism destinations. Sustainable tourism aims to minimize negative impacts on the environment, preserve local cultures, and contribute to the well-being of local communities. Long-Term Viability for Sustainable strategies in tourism ensures the long-term viability of tourism destinations by balancing economic, social, and environmental aspects, thereby safeguarding the integrity of the destinations (Larasati & Rahmawati, 2017; Firdausyah et al., 2021). Based on the results of the interviews conducted, it is known that the application of digital literacy can increase the profits of MSME players. This is reinforced by the digital knowledge possessed by business owners, which allows them to minimise losses; in addition, the digital knowledge applied by business owners is very beneficial for business continuity, because it allows them to reach a larger consumer base, which of course increases business profits. Applying digital literacy actually helps businesses' ability to increase revenue.

Based on research from Surmeier (2020) dynamic capability building and social upgrading in tourism, this reference is relevant to the discussion as it explores how sustainability standards in tourism can contribute to capability building and social upgrading at the enterprise level, providing insights into strategies to enhance the capabilities of MSMEs in the tourism sector, including Tanjung Lesung Tourism. Based on the results of the research at this point, the researcher created a concept that can be used to help find strategies that can be arranged for MSMEs actors.

Table 3. Sustainability strategies for MSMEs in Tanjung Lesung Tourism

No	Sustainability Strategies	Description
1.	Sustainability Literacy Training	Provide training to MSMEs about the importance and implementation of sustainable practices in their operations. This includes understanding waste management, energy efficiency, and the use of environmentally friendly materials.

2.	Development of Environmentally Friendly Products:	Encourage MSMEs to develop products and services that are environmentally friendly. For example, products that use recycled materials or follow sustainable production processes.
3.	Sustainability Certification	Encourage or provide support for MSMEs in Tanjung Lesung to obtain sustainability certifications. This can enhance their business image and provide greater access to environmentally conscious markets.
4.	Promotion of Sustainable Tourism	Include information about MSMEs committed to sustainability practices in the promotion of Tanjung Lesung tourism. This can attract tourists seeking sustainable experiences and positive impacts.
5.	Tourist Education	Provide information to tourists on sustainable ways to enjoy the Tanjung Lesung destination, including support for local MSMEs committed to sustainability.
6.	Use of Sustainable Technology	Encourage MSMEs to adopt sustainable technologies, such as the use of renewable energy, technology-based inventory management systems, and sustainability-focused applications.
7.	Monitoring and Evaluation	Implement a monitoring and evaluation system to track the impact of sustainability practices adopted by MSMEs. This helps identify areas that need improvement and ensures alignment with sustainability goals.

From the table this research give a conclusion from explanation Alonso et al., (2017) that stakeholder Engagement so much important, by understanding the role of stakeholders in craft beer tourism development and how similar stakeholder engagement strategies can be applied to Tanjung Lesung Tourism. Digital literacy education can begin with honing content reading abilities. As a result of rigorous reading, using digital literacy for content understanding will become increasingly important.

Modern communication include not only the creation of texts but also the steps involved in choosing, arranging, filtering, and reassembling previously obtained information. The emergence of digital technology reinforces the fundamental components of digital literacy, which include obtaining information and connecting it to the context that needs to be generated.

4. CONCLUSION

Based on observational data and questionnaire responses, the following conclusions were reached in this research. A digital literacy solution in business can function as a primary tool to support the business's ongoing operations. The most important factor that business owners must attend to is business continuity. The primary results that business owners need to focus on are growth, profit, and human resource contributions. This achievement is likely influenced by a body of knowledge, particularly in the area of digital literacy, which is one of the main barriers to business success. The location of Tanjung Lesung in the province of Banten is a popular tourist destination for several reasons, such as its strategic location, beautiful panoramic views, and the attraction of many tourists who are interested in visiting continuously because it has become one of the icons in the province of Banten.

REFERENCES

- Anand, Sudhir, and Martin Ravallion. 1993. "Human Development in Poor Countries: On the Role of Private Incomes and Public Services." *Journal of Economic Perspectives* 7(1):133–50.
- Bagale, Girish Santosh, Venkata Ramana Vandadi, Deepmala Singh, Dilip Kumar Sharma, Durga Venkata Kusuma Garlapati, Ravi Kumar Bommiseti, Ravi Kumar Gupta, Roy Setsiawan, V. Subramaniaswamy, and Sudhakar Sengan. 2021. "Small and Medium-Sized Enterprises' Contribution in Digital Technology." *Annals of Operations Research* 1–24.
- D'Acunto, Francesco, and Alberto G. Rossi. 2023. "IT Meets Finance: Financial Decision-Making in the Digital Era." Pp. 336–54 in *Handbook of Financial Decision Making*. Edward Elgar Publishing.
- Erlanitasari, Yosi, Andre Rahmanto, and Mahendra Wijaya. 2020. "Digital Economic Literacy Micro, Small and Medium Enterprises (SMES) Go Online." *Informasi* 49(2):145–56.
- Ertmer, Peggy A. 1999. "Addressing First-and Second-Order Barriers to Change: Strategies for Technology Integration." *Educational Technology Research and Development* 47(4):47–61.
- Gomber, Peter, Robert J. Kauffman, Chris Parker, and Bruce W. Weber. 2018. "On the Fintech Revolution: Interpreting the Forces of Innovation, Disruption, and Transformation in Financial Services." *Journal of Management Information Systems* 35(1):220–65.
- Iordache, Catalina, Ilse Mariën, and Dorien Baelden. 2017. "Developing Digital Skills and Competences: A Quick-Scan Analysis of 13 Digital Literacy Models." *Italian Journal of Sociology of Education* 9(Italian Journal of Sociology of Education 9(1):6–30.
- Irman, Mimelientesa, Budiyanto Budiyanto, and Suwitho Suwitho. 2023. "Increasing Financial Inclusion through Financial Literacy and Financial Technology On MSMEs." *International Journal Economics Development Research* 126–41.
- Irvin, Renee A., and John Stansbury. 2004. "Citizen Participation in Decision Making: Is It Worth the Effort?" *Public Administration Review* 64(1):55–65.
- Kusumasari, Bevaola, Quamrul Alam, and Kamal Siddiqui. 2010. "Resource Capability for Local Government in Managing Disaster." *Disaster Prevention and Management: An International Journal* 19(4):438–51.
- Mohammadyari, Soheila, and Harminder Singh. 2015. "Understanding the Effect of E-Learning on Individual Performance: The Role of Digital Literacy." *Computers & Education* 82:11–25.
- Narula, Rajneesh, and John H. Dunning. 2000. "Industrial Development, Globalization and Multinational Enterprises: New Realities for Developing Countries." *Oxford Development Studies* 28(2):141–67.
- Putra, Agus Tri, Thamrin Tahir, and Muhammad Hasan. 2023. "Analysis of Financial Literacy and Digital Literacy on the Sustainability of Micro, Small and Medium Enterprises (MSMEs)." *International Journal of Asian Business and Management* 2(6):977–92.
- Rakib, Muhammad, Muhammad Azis, Marhawati Najib, and Andika Isma. 2024. "Impact of Digital Literacy, Business Innovation, Competitive Advantage on the Existence of SMEs: A Quantitative Study in Makassar City, Indonesia." *Calitatea* 25(198):277–83.
- Rinaldi, Fitri, Syamsul Maarif, Suyono Thamrin, and Asep Adang Supriyadi. 2022. "Role of Micro, Small, and Medium Enterprises (MSMEs) in Supporting National Defense from Economic Perspective." *Journal of Positive School Psychology* 8914–20.
- Rohayati, Suci, Budi Eko Soetjipto, Agung Haryono, Hari Wahyono, Albrian Fiky Prakoso, and Mohamad Arief Rafsanjani. 2023. "Financial Management Model for Micro and Small Enterprises Owner in Surabaya." *Journal of Higher Education Theory and Practice* 23(17):213–35.
- Rondinelli, Dennis A., James S. McCullough, and Ronald W. Johnson. 1989. "Analysing Decentralization Policies in Developing Countries: A Political-economy Framework." *Development and Change* 20(1):57–87.
- Roseland, Mark. 2000. "Sustainable Community Development: Integrating Environmental, Economic, and Social Objectives." *Progress in Planning* 54(2):73–132.
- Setiawan, Ahmad Budi, Karman, Ari Cahyo Nugroho, Amri Dunan, and Bambang Mudjiyanto. 2023. "Digital Strategies and Policy Approach for Small Medium Micro Business Development in Indonesia." Pp. 71–86 in *Open Innovation in Small Business: Creating Values for Sustainability*. Springer.
- Setiawan, Azhari, Rizky Octa Putri Chairin, Rizqi Apriani Putri, Agung Dhamar Syakti, Hilfi Pardi, ONanong Thippimol, Ziaul Haque Munim, Jalaluddin Abdul Malek, and Andi Misbahul Pratiwi. 2023. *Proceedings of the International Conference Social-Humanities in Maritime and Border Area (SHIMBA 2023)*. Vol. 799. Springer Nature.
- Singh, Davinder, J. S. Khamba, and Tarun Nanda. 2018. "Problems and Prospects of Indian MSMEs: A Literature Review." *International Journal of Business Excellence* 15(2):129–88.
- Stimson, Robert J., Roger R. Stough, and Brian H. Roberts. 2006. *Regional Economic Development: Analysis and Business sustainability challenges in the face of technology and digital literacy: a study of Micro, Small, and Medium Enterprises (Indra Permana)*

- Planning Strategy*. Springer Science & Business Media.
- Suryani, Umi, Mts Arief, Sri Bramantoro, and M. Hamsal. 2022. "The Impact of Digital Literacy and E-Commerce Adoption with O2O Business Adoption on the Performance of Small and Medium Enterprises." *International Journal of EBusiness and EGovernment Studies* 14(2):199–223.
- Susan, Marcellia. 2020. "Financial Literacy and Growth of Micro, Small, and Medium Enterprises in West Java, Indonesia." Pp. 39–48 in *Advanced issues in the economics of emerging markets*. Emerald Publishing Limited.
- Wairimu, Winnie Wangari. 2015. "Micro, Small and Medium-Size Enterprises (MSMEs) as Suppliers to the Extractive Industry." *United Nations Development Programme Report*.
- Wallace, Michael, and Lawrence Webber. 2017. *The Disaster Recovery Handbook: A Step-by-Step Plan to Ensure Business Continuity and Protect Vital Operations, Facilities, and Assets*. Amacom.