

## Research Article

# A Qualitative Dynamic System Approach Post Covid-19 Recovering Strategy on the MSME and Tourism Sector of Cirebon, West Java

Lathifaturahmah<sup>1\*</sup>, Cory Vidiati<sup>2</sup>, Rachmat Syafei<sup>3</sup>, Rosdita Indah Yuniawati<sup>4</sup>, and Yuyud Susilo<sup>1</sup>

<sup>1</sup>Institut Pangeran Dharma Kusuma, Indramayu, West Java, Indonesia

<sup>2</sup>Universitas Islam Bunga Bangsa, Cirebon, West Java, Indonesia

<sup>3</sup>Universitas Islam Negeri Sunan Gunung Djati Bandung, West Java, Indonesia

<sup>4</sup>Institut Pesantren Babakan, Cirebon, West Java, Indonesia.

**ORCID**

Lathifaturahmah: <https://orcid.org/0009-0008-4148-0107>

**Abstract.**

This paper examines the government's strong interest in Indonesia's economic activities, especially in the context of post-COVID-19 economic recovery. The objective is to qualitatively analyze economic recovery strategies, especially in the MSME and tourism sectors, which have a significant impact on economic growth. A dynamic systems approach with qualitative methods was applied for collecting data through interviews, observations, and the use of secondary data from authentic articles. The findings highlight the need for support in the MSME sector, including improving the quality of human resources, financial management, tax incentives, credit relief and restructuring, increased working capital financing, product support, and e-learning training. The tourism sector requires innovation and diversification in the areas of product development, destinations, and tourism infrastructure management. This study makes a novel contribution by presenting a qualitative system dynamics conceptual model for post-COVID-19 economic recovery strategies. Future research will focus on testing and validating the components of this model in the context of MSMEs and tourism and will help policymakers, management teams, and relevant stakeholders in their efforts to recover MSMEs and tourism sectors from the impacts of disasters. This will have a significant impact on everyone involved.

**Keywords:** Post COVID-19, MSMEs, tourism

## 1. INTRODUCTION

This Indonesia's economic activity has always been a priority for the government, especially after the COVID-19 pandemic [1]. The government's interest is in sustaining the country's economy, and the government pursues strategic objectives of service, community empowerment, development and stabilization. One of its key tasks is the responsibility to strengthen the community as an important contributor to the realization of the national vision [2]. Government support for community self-reliance as part of

Corresponding Author:  
Lathifaturahmah; email:  
Lathifaturahmah@stkipadhaku.  
ac.id

**Published:** 3 July 2024

Publishing services provided by  
Knowledge E

© Lathifaturahmah et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the IJESAS Conference Committee.

 OPEN ACCESS

its empowerment role, including the introduction of a populist economy through the strengthening of MSMEs [3], [4]. Empowerment may increase the income of his MSME, but the income of an MSME entity that frequently participates in empowerment is not significantly different from the income of an MSME entity that rarely participates in empowerment [5]. MSMEs have an important role in developing the national economy through the growth of their businesses [6]. However, it has been found that in the face of various challenges, MSMEs continue to be the mainstay of governments to survive and meet the needs of their communities [5].

The role of MSMEs holds importance in the economy. As stated in Article 33(4) of the 1945 Constitution MSMEs are a part [2]. Have the potential to enhance the well-being of the people. According to data from the Ministry of Cooperatives and Small and Medium Enterprises Indonesia currently has around 64.19 million MSMEs, which contribute 61.97% to GDP with a value of Rp 8,573.89 trillion. These MSMEs play a role in boosting the economy by employing about 97% of the total workforce and contributing up to 60.4% of overall investment capital. These figures emphasize the role that MSMEs play in Indonesias landscape. On a note it is evident that access to institutions for MSMEs remains uneven across Indonesia due to limited government promotion efforts. Merely a quarter of MSMEs (around 13 million) currently have access to institutions such, as banks [8]. In the meantime the COVID 19 pandemic continues to have an impact, on MSMEs. These enterprises are facing challenges such as face to face interactions with customers difficulties in adapting to the new normal, a decline in sales [9]; decreased production and even business closures. Additionally there are concerns about disruptions to food security and nutrition [10].

It's worth noting that MSMEs play a role, in the tourism industry. The presence of MSMEs that support tourism projects is also part of local government regulations, and it is necessary to consider the presence of local MSMEs as a form of cultural wisdom that creates unforgettable memories for tourists. Two years after the coronavirus outbreak devastated the global tourism sector, it is still impacting the economies of many countries around the world, especially those dependent on tourism. The country is experiencing production losses [11]. According to the World Travel and Tourism Council (WTTC), the global travel and tourism sector's contribution to global output has declined dramatically, from around 10.5% of global GDP in 2019 to 5.5% in 2020. This has led to the creation of jobs. 62 million people died worldwide [12] Furthermore, it has a significant impact on individuals' risk perceptions of global travel and changes travelers' perceptions of travel and tourism [13]. To date, the tourism sector plays a fundamental role in most economies in terms of job creation, income generation, providing foreign exchange earnings, and

contributing to growth [14]. In addition to the tourism industry, tourism-related industries also contribute to job and income generation. Therefore, it is important to understand the factors that accelerate the recovery of the tourism industry from shocks such as the COVID-19 pandemic.

Regarding the impact of COVID-19 on the tourism industry, many studies have been conducted to investigate the impact of the economic and financial crisis [15]. However, there are still few examples of terrorism, conflict [16], and other factors [17], and there is still little literature discussing factors that can contribute to the recovery of the tourism sector. In addition to the tourism industry, tourism-related industries also contribute to job and income generation. Therefore, it is important to understand the factors that accelerate the recovery of the tourism sector from shocks such as the COVID-19 pandemic [13]. Although several policy responses have contributed to the recovery of the tourism sector, the central role of national resilience in promoting overall economic recovery has yet to be examined empirically [18]. Although the concept of resilience is closely related to a country's ability to cope with uncertainty due to shocks such as the COVID-19 pandemic, current literature provides little understanding of the relationship between resilience and crisis management policies [19]. Identifying standardized forecasts for economic recovery strategies for the tourism industry and MSMEs could provide an indicator of sustainable and shock-resilient economic growth.

## 2. METHOD

The survey was conducted among MSMEs and tourism stakeholders in Cirebon to provide insights into economic recovery strategies following the COVID-19 pandemic. In this study, qualitative data were analyzed at all levels of the modeling process [20]. Data collection techniques include interviews, discussion groups, Delphi studies, and participant observation [20]. Individual interviews or group problem identification are conducted with stakeholders to understand the problem and identify key variables [21]. Semi-structured interviews and discussion groups help manage system complexity through feedback [20].

Therefore, the research in this article applies qualitative system dynamics modeling techniques to study what economic recovery strategies might look like after the COVID-19 pandemic. The main contribution of this research is a further empirical assessment of the usefulness of qualitative system dynamics as an approach to holistically examine post-COVID-19 recovery strategies so that local governments, in particular, can provide

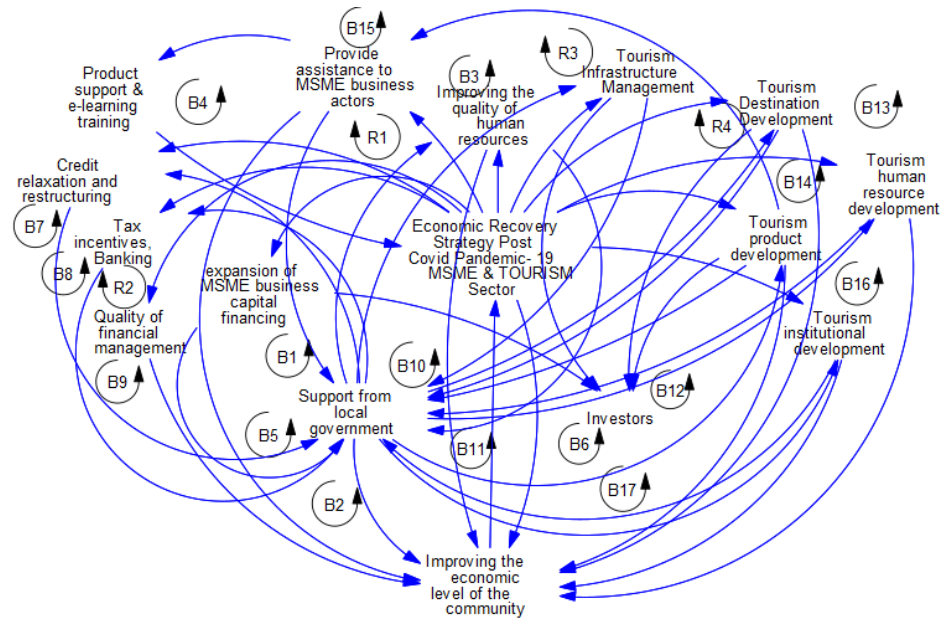
appropriate policies regarding post-COVID-19 economic recovery strategies. Table 1 show Research design: Qualitative system dynamics.

TABLE 1: Research design: Qualitative system dynamics.

Phases	Activities	Objectives
Phases One Problem Identification	Literature Review	Identify research gaps and model objectives in capturing the complete picture of the desired image display. Identify key variables for a conceptual model to get a holistic view of the MSME and tourism sector.
Phase Two Collection & Analysis	Interviews	Data collection from MSME and tourism stakeholders in Cirebon using non-probability sampling method. Data collection by the Ministry of Industry and Trade to identify key variables related to economic recovery strategies following the COVID-19 pandemic. In-depth interviews with MSME stakeholders and tourism managers. Possible causes and effects of the COVID-19 pandemic
	Data Interpretation	Interpret and analyze collected data to identify key variables, causes, and factors influencing post-COVID-19 economic recovery. Conceptualize themes and link them to related variables to generate meaningful theories and relationships.
Phase Two Collection & Analysis	Additional Data Collection	Collecting secondary data based on analysis of primary data, such as economic growth, COVID-19 impacts, political environment, policies, and administrative reports. This data helps identify the root causes of key variables within the MSME sector. The aim is to investigate the potential causal influences on post-COVID-19 economic recovery in MSMEs and validate primary data from stakeholders and Disperindag.
	Designing Process Flow Model	Group related variables to form subcomponents of a system Create influence diagrams of causal process of variables Extend the scope and boundaries of a model based on data. – Development of causal loop diagrams for system description as an independent method. Identify closed or open feedback loops, counterintuitive behavior (reinforcement, denoted by “R”) or self-balancing behavior (goal seeking, denoted by “B”) of various subcomponents of the system. Identify link and loop polarity. Explore relationships that may exist between variables. ☒Animal psychological fortune-telling free site results
Phase Three Develop Causal Loop Diagram	Designing Process Flow Model	Group related variables to form subcomponents of a system Create influence diagrams of causal process of variables Extend the scope and boundaries of a model based on data. – Development of causal loop diagrams for system description as an independent method. Identify closed or open feedback loops, counterintuitive behavior (reinforcement, denoted by “R”) or self-balancing behavior (goal seeking, denoted by “B”) of various subcomponents of the system. Identify link and loop polarity. Explore relationships that may exist between variables. ☒Animal psychological fortune-telling free site results

### 3. RESULTS AND DISCUSSIONS

The Through this figure, we will explore the key elements and relationships that influence the recovery process in both sectors, providing insights into effective recovery measures. Gambar 1 memberikan gambaran kualitatif sistem dinamis model of economic recovery strategy Post Covid Pandemic- 19 MSME & TOURISM sector.



**Figure 1:** Qualitative System Dynamics model of Economic Recovery Strategy Post Covid Pandemic- 19 MSME & TOURISM Sector.

Through Table 2, we can comprehensively understand how recovery measures are interconnected, forming an adaptive and responsive strategy in the aftermath of the COVID-19 pandemic.

Economic recovery after the COVID-19 pandemic in the MSME sector, derived from primary and secondary data collection and thematic analysis.

Loop R1: Enhance the capacity of MSMEs and contribute to inclusive and sustainable economic growth. Building partnerships between MSMEs and the tourism sector can generate multiple benefits. For example, MSMEs can supply local products to the tourism sector, while the tourism sector can help promote MSME products to tourists. By focusing on inclusive and sustainable development of MSMEs and the tourism sector, Cirebon City can create jobs, increase community income, and support balanced economic growth, while preserving its cultural and natural heritage. This is an important step in achieving sustainable and inclusive economic growth in the region.

Loops B1, B2, B3, and B4: Create an enabling environment for inclusive and sustainable economic growth. This will create greater economic opportunities for the local community, increase the competitiveness of local products, and have a positive impact on inclusive and sustainable economic growth.

Loop R2: Strategic measures are essential to support economic growth and development of the MSME sector. Collaboration between the government, private sector, and community is important to support the economic growth of MSMEs in Cirebon City. Expansion of financing through access to finance, financial assistance programs,

TABLE 2: The COVID-19 Post-Pandemic Recovery Strategy Loop.

Loop name	Variables	Embedded themes
Reinforcing R1	Provide assistance to MSME Business actors	Increase the capacity of MSMEs and contribute to inclusive and Sustainable economic growth
Balancing B1, B2, B3, dan B4	Support from local government, Improving the economic level of the community, Improving the quality of human resources, Product support & e-learning training	Create an enabling environment for inclusive and sustainable economic growth. Local and national governments, the private sector and civil society must work together to achieve the goals (effective communication between stakeholders is essential to solving this problem).
Reinforcing R2	Expansion of MSME business financing	Strategic steps are essential to support economic growth and the development of the MSME sector.
Balancing B5, B6, B7, B8, dan B9	Support from local government, Investors, Credit relaxation and restructuring, Tax incentives, Banking, Quality of financial management,	Cooperation between the government, private sector, and other stakeholders is required. Involves improving regulations, increasing transparency, and supporting the development of human resources related to financial management. (Good planning and supervision in the implementation of programs is essential to ensure effectiveness and positive outcomes)
Reinforcing R3	Tourism Infrastructure Management	Ensure that tourism destinations remain attractive to tourists, environmentally and culturally sustainable, and contribute to the economic growth and well-being of local communities. In addition, management should also consider the principles of sustainability and the participation of local communities in tourism-related decision-making.
Balancing B10.	Support from local government	Comprehensive and sustained support from local governments can create a conducive environment for the growth of the MSME and tourism sectors, generate economic benefits, create jobs, and improve the competitiveness of the region in the tourism industry. (ensuring that tourism development takes place in a sustainable manner and respects the local environment and culture).
Reinforcing R4	Tourism Destination Development	Strategic steps to maximize tourism potential, (creating destinations that are attractive, provide economic benefits, and care for the local environment and culture).
Balancing B11, B12, B13, B14, B15, B16, dan B17	Support from local government, Investors, Tourism human resource development, Tourism product development, Provide assistance to MSME business actors, Tourism institutional development, Improving the economic level of the community	Collaboration between local governments, the private sector, and civil society is essential. This involves improved regulation, investment in education and training, promotion of sustainable tourism products, and special support for MSMEs. Efforts should also focus on ensuring that the economic benefits of the tourism sector can be spread more equitably to improve the lives of local communities.

training, financial education, and collaboration with financial institutions have a key role in increasing capacity and inclusive and sustainable economic growth. With better

understanding and effective cooperation, the MSME and tourism sectors in Cirebon City can develop better, supporting inclusive and sustainable economic growth.

Loop B5, B6, B7, B8, & B9: Collaboration between the government, private sector and other stakeholders is required. Effective collaboration between stakeholders optimizes resources, reduces waste, and addresses complex issues. Government support, investors, credit relaxation, tax incentives, and improved financial management are key to the growth of the MSME and tourism sectors in Cirebon City. Through continued cooperation and support, these sectors can have a positive impact on inclusive and sustainable economic growth.

Loop R3: Ensure that tourism destinations remain attractive to tourists. The sustainable approach in developing tourist destinations in Cirebon City involves tourism attraction, environmental and cultural sustainability, and local community participation. This ensures the destination remains attractive, provides positive economic impact, and protects natural and cultural resources. Good tourism infrastructure management will support the growth of the MSME and tourism sectors, making Cirebon City an attractive tourist destination, providing local economic benefits, and paying attention to environmental sustainability.

Loop B10: Comprehensive and sustainable support from local government can create a conducive environment for the growth of the MSME and Tourism sectors. With a comprehensive approach, the local government plays a key role in managing the growth of the MSME and tourism sectors in Cirebon City. Support in tourism infrastructure management is an important foundation. With careful planning, wise investment, and sustainable policies, local governments can create attractive tourism destinations, have a positive impact on the local economy, and maintain environmental sustainability.

Loop R4: Strategic measures to maximize tourism potential, With a series of actions focusing on tourism product development, sustainable management, cultural preservation, and local community participation, Cirebon City aims to create an attractive, economic, and environmentally conscious destination. Infrastructure investment, promotion, tourist education, and performance measurement are the keys to success. With this approach, Cirebon City tourism destinations can achieve economic, environmental, and cultural sustainability, providing benefits for all stakeholders. These measures are the basis for inclusive economic growth and local community welfare.

Loops B11, B12, B13, B14, B15, B16, & B17: Collaboration between local government, private sector and civil society is a key foundation for sustainable and inclusive development. In the context of tourism and MSMEs, this collaboration creates attractive

and sustainable destinations, providing significant economic benefits. Government support, investors, human resource development, tourism products, MSME assistance, and tourism institutional development are key to the successful development of tourism destinations in Cirebon City, providing economic opportunities, improving people's lives, and promoting the city's cultural heritage and natural beauty.

Innovative ideas to support MSMEs and tourism: (1) MSME mentoring - Virtual mentoring through online platforms for training and advice. Online mentoring networks to share experiences and knowledge. Technology-oriented mentoring, including e-commerce training. (2) MSME capital financing - Peer-to-peer lending for access to capital from investors. Crowdfunding for financial support from the community. (3) Tourism infrastructure management - Utilize technology such as AI and IoT. Focus on sustainable environmental management. (4) Tourism destination development - Targeted digital marketing. Collaboration with local MSMEs. Continuous training for tourism professionals. Development of innovative tourism products. Holistic approach involving all stakeholders.

All of these innovations require strong local government support, including the development of supportive regulations and the provision of necessary infrastructure, and working with investors and the private sector can help finance recreational activities. In addition to seeing that in the community there are opportunities that the company can take advantage of as profitable objects or targets that can determine the company's survival for as long as possible [22].

## 4. CONCLUSION

In Indonesia's post-COVID-19 economic recovery, virtual mentoring for MSMEs and financing through peer-to-peer lending and crowdfunding are innovative solutions. In the tourism sector, technologies such as artificial intelligence and the Internet of Things can improve infrastructure and environmental management. Targeted digital marketing and collaboration with local MSMEs can enhance destination attractiveness. Continuous training for tourism professionals and support from local governments as well as collaboration with investors and the private sector are key to success. From the dynamic system analysis, MSMEs and the tourism industry show a willingness to develop, supported by government supplements. The interdependent relationship between the two needs to be maintained, with continuous monitoring and evaluation for sustainable recovery. Business resilience strategies can be built through collaboration, adaptation, and economic sharing, provided that stakeholders comply with



SOPs. Dynamic systems analysis becomes an evaluation tool and standardizes recovery strategies for the future.

## ACKNOWLEDGMENTS

Thanks to the Department of Industry and Trade of Cirebon Regency for easy access to the data needed in this research. to the Department of Industry and Trade of Cirebon Regency for easy access to the data needed in this research.

## References

- [1] Communication Department. "IMF: The Indonesian Economy Has Emerged from The Pandemic Performing Strongly," Bank Indonesia, Jakarta, Press Release No.25/169/DKom, 2023.
- [2] Bakhtiar S, Ramlan P, Saleh W, Andreani AR, Herman B. dan B. Herman, "The Role of Governments in Developing MSMEs in Line with Social Changes Due to the Covid-19 Pandemic," KnE Soc. Sci Mar. 2022;: <https://doi.org/10.18502/kss.v7i5.10556>.
- [3] N. Noviyanti dan S. M. F. Azam, "The Impact of Covid-19 Pandemic on Taxpayers' Compliance of MSMEs in Palembang," WIDYAKALA J. Pembang. JAYA Univ., vol. 8, no. 1, hlm. 25, Mar 2021, <https://doi.org/10.36262/widyakala.v8i1.414..>
- [4] Wirdiyanti R. Microcredit Effectiveness and Micro-Small Business Development: Lesson from Indonesia. OJK; 2019.
- [5] S. Suminah, S. Suwanto, S. Sugihardjo, S. Anantanyu, dan D. Padmaningrum, "Determinants of Micro, Small, and Medium-Scale Enterprise Performers' Income During the Covid-19 Pandemic Era," Heliyon, vol. 8, no. 7, hlm. e09875, Jul 2022, <https://doi.org/10.1016/j.heliyon.2022.e09875..>
- [6] Ariani Wulansari N, Ranihusna D. dan. P., "Encouraging Knowledge Sharing Behavior to Boost the Business Performance of Creative Industry (Study in Indonesia SMES's Context)," KnE Soc. Sci., vol. 3, no. 10, hlm. 309, Okt 2018, <https://doi.org/10.18502/kss.v3i10.3137>.
- [7] "This Annual Report Provides a Comprehensive Account of the Operational and Financial Results of the Asian Development Bank (ADB) in 2019.," ADB.
- [8] D. Hertina, S. Hendiarto, dan J. H. Wijaya, "DAMPAK COVID-19 BAGI UMKM DI INDONESIA PADA ERA NEW NORMAL," J. Pengabd. Dharma Laksana, vol. 3, no. 2, hlm. 110, Jan 2021, <https://doi.org/10.32493/j.pdl.v3i2.8798..>

- [9] "Challenge Of Culture-Based Smes Digitalisation," bi.go.id. Diakses: 4 Maret 2023. [Daring]. Tersedia pada: <https://www.bi.go.id/en/bi-institute/BI-Epsilon/Pages/Tantangan-Digitalisasi-UMKM-Berbasis-Budaya.aspx>
- [10] S. Nordhagen, U. Igbeka, H. Rowlands, R. S. Shine, E. Heneghan, dan J. Tench, "COVID-19 and small enterprises in the food supply chain: Early impacts and implications for longer-term food system resilience in low- and middle-income countries," *World Dev.*, vol. 141, hlm. 105405, Mei 2021, <https://doi.org/10.1016/j.worlddev.2021.105405..>
- [11] Internationaler Währungsfonds, editor. *Managing divergent recoveries*. dalam *World economic outlook / International Monetary Fund*, no. 2021, Apr. Washington, DC: International Monetary Fund, 2021.
- [12] *World Economic Outlook*, April 2021. INTERNATIONAL MONETARY FUND, 2021. <https://doi.org/10.5089/9781513575025.081..>
- [13] L. Okafor, U. Khalid, dan S. Gopalan, "COVID-19 economic policy response, resilience and tourism recovery," *Ann. Tour. Res. Empir. Insights*, vol. 3, no. 2, hlm. 100073, Nov 2022, <https://doi.org/10.1016/j.annale.2022.100073..>
- [14] L. E. Okafor dan U. Khalid, "Regaining international tourism attractiveness after an armed conflict: the role of security spending," *Curr. Issues Tour.*, vol. 24, no. 3, hlm. 385–402, Feb 2021, <https://doi.org/10.1080/13683500.2020.1734547..>
- [15] R. R. Peterson dan R. B. DiPietro, "Exploring the Impact of the COVID-19 Pandemic on the Perceptions and Sentiments of Tourism Employees: Evidence from a Small Island Tourism Economy in the Caribbean," *Int. Hosp. Rev.*, vol. 35, no. 2, hlm. 156–170, Des 2021, <https://doi.org/10.1108/IHR-10-2020-0063..>
- [16] Veilleux-Lepage Y, van Steen T. dan M.-E. Kisyova, "Terrorism Experts' Predictions Regarding the Effects of the COVID-19 Pandemic on the Activities of Violent Non-State Actors," *JSTOR*, vol. 16, no. 4, hlm. 41–58, 2023.
- [17] J. Abbas, R. Mubeen, P. T. Iorember, S. Raza, dan G. Mamirkulova, "Exploring the Impact of COVID-19 on Tourism: Transformational Potential and Implications for a Sustainable Recovery of the Travel and Leisure Industry," *Curr. Res. Behav. Sci.*, vol. 2, hlm. 100033, Nov 2021, <https://doi.org/10.1016/j.crbeha.2021.100033..>
- [18] G. D. Sharma, A. Thomas, dan J. Paul, "Reviving tourism industry post-COVID-19: A resilience-based framework," *Tour. Manag. Perspect.*, vol. 37, hlm. 100786, Jan 2021, <https://doi.org/10.1016/j.tmp.2020.100786..>
- [19] Y. Jiang, B. W. Ritchie, dan M. Verreynne, "Building tourism organizational resilience to crises and disasters: A dynamic capabilities view," *Int. J. Tour. Res.*, vol. 21, no. 6, hlm. 882–900, Nov 2019, <https://doi.org/10.1002/jtr.2312..>

- [20] L. F. Luna-Reyes dan D. L. Andersen, "Collecting and Analyzing Qualitative Data for System Dynamics: Methods and Models: Collecting and Analyzing Qualitative Data," *Syst. Dyn. Rev.*, vol. 19, no. 4, hlm. 271–296, Des 2003, <https://doi.org/10.1002/sdr.280..>
- [21] T. Mai dan C. Smith, "Addressing the Threats to Tourism Sustainability Using Systems Thinking: A Case Study of Cat Ba Island, Vietnam," *J. Sustain. Tour.*, vol. 23, no. 10, hlm. 1504–1528, Nov 2015, <https://doi.org/10.1080/09669582.2015.1045514..>
- [22] Lathifaturahmah C. Vidiati, H. A. Mokti, D. Selasi, dan M. Iqbal, "Assistance of MSMEs: Sustainability Business of Tempe Entrepreneurs, Tegalkarang-Palimanan-Cirebon," *Int. Conf. Res. Dev. ICORAD*, vol. 2, no. 1, Art. no. 1, Mar 2023, <https://doi.org/10.47841/icorad.v2i1.96>.