

Tourism Human Resource Capacity Development supports the Blue Economy in Mengare Island

Siti Mujanah 1

University August 17, 1945, Email: sitimujanah@untag-sby.ac.id

M Sihab Ridwan 2

University August 17, 1945, Email: shihab@untag-sby.ac.id

Taufiq Urohman 3

University August 17, 1945, Email: taufiqur.gsk@gmail.com

Abstract

The objective of this research is to enhance the capacity of human resources (HR) in supporting green tourism based on the economy of Gresik Island by utilizing digital technology. This research used a qualitative method using a phenomenological approach to collect data through in-depth interviews with various stakeholders such as government officials, tourism management, business owners, and local community. An analysis was conducted using the NVIVO software to identify the main theme related to the enhancement of human resource capacity and digitalization. The results indicate that training in digital literacy, tourism management, and environmental conservation play a crucial role in enhancing the competence of human resources. In addition, institutional reform and collaboration among the government, educational institutions, and private sector firms are crucial factors to provide an effective organizational structure that supports long-term sustainability. Utilising digital technology, such as websites, social media, and digital marketing, has been proven to enhance operational efficiency and attraction of tourism in Mengare Island. The support of stakeholders is crucial in ensuring the successful implementation of the new economic concept, which not only affects economic growth but also plays a role in environmental preservation in the tourist area.

Keywords: *HR Capacity, Digital, Blue Economy, Mengare; Training*

Introduction

Gresik has the potential to develop based on the Blue Economy concept. One potentially significant area is Mengare Island, which has an aquatic ecosystem and a variety of ecosystems, including mangrove beaches, exotic beaches, Ayang-Ayang beaches, and historically significant Benteng Fort Lodewijk [1]. Mengare Island's visible tourism potential can be used as an attraction for various tourist attractions [2], [3].

The wisata industry in Mengare Island is still facing several challenges, such as rising awareness and involvement among the local community as well as declining human resources (HR) competence in wisata development. Kartika [4] indicates that the state of sanitation in

the mangrove areas is still somewhat poor, and the general public is not yet aware of the significant economic benefits of the mangrove areas' presence [5]. This phenomenon is explained by the declining level of community education in Desa Tanjung Widoro, where the majority only attends lower-level schools (Statistik Desa Tanjung Widoro, 2024).

Digital-based HR capacity expansion models can be used as a solution to support local communities, government agencies, and business owners. Digital HR management can improve community competence and foster community development [6], [7]. This approach will help Mengare Island's mangrove ecosystem and contribute to the region's increasing kesejahteraan population [8].

This research focuses on the management of human resources (HR) that are continuously growing, digital in nature, HR capacity expansion, and the Blue Economy concept. While HR management is primarily concerned with employee well-being and environmental and economic sustainability, digital management emphasizes the use of digital technology to increase the effectiveness and efficiency of HR processes [9], [10].

Human Resources Management

According to Dessler [11], in order to maximize productivity, HR management encompasses analysis of work performance, employee development, and learning. According to Stankevičiute and Savanevičiene [10], the goal of HR management is to achieve balance between organizational work and employee well-being by emphasizing social and environmental factors.

Sustainable Human Resource Management

Stahl [12] states that HR management is a multifaceted process that encompasses financial, social, and environmental goals, such as employee well-being and contribution to team progress. HR's long-term goals include hiring, selection, employee development, and career planning that is focused on long-term goals [10].

Human Resource Management Based on Digital

Cloud-based technology enables digital transformation in HR to increase organizational productivity and efficiency. According to Asari et al. [6], the advantages of digital transformation include data protection, increased collaboration, and easier operational facilitation. There are drawbacks as well, such as outdated organizational structures and outdated technological infrastructure.

Expanding the Human Capacity

The goal of HR capacity expansion is to increase knowledge and commitment to achieve more effective and sustainable organizational goals [13], [14]. In order to achieve more effective teaching, this development involves training, mentoring, organizational development, and group reform [15].

Blue Economy

The Blue Economy include fisheries, renewable energy, tourism and biotechnology sectors while protecting marine ecosystems [16]. Blue economy also aims to increase economic growth [8], [17].

This research includes three new perspectives that are integrated with the previous research, but it offers new insights and different perspectives in the expansion of HR pariwisata based on the Blue Economy in Mengare Island.

The first aspect is the integration of Digital Technology in HR Development. Previous studies, such as those conducted by Mahdy et al. [18] and Kainzbauer et al. [19], highlight the need of Green Human Resource Management (GHRM) and Sustainable HRM in a changing context. This research is more advanced by integrating digital technology in an elaborative way in the expansion of HR capacity. Digital technology is used to optimize pariwisata pariwisata paringkat keterampilan HR and to train, monitor, and evaluate the mangrove-based wisata leasing system on Mengare Island. This underscores the earlier challenge to harness technology to support sustainable economic growth based on labor.

The second aspect is a community based approach research on tourism management findings. Previous research such as Vu et al. [20] discuss tourist behavior and its impact on the social sustainability of tourism in remote communities. Junaid [21] and Mujanah et al. [22], highlight the importance of community attitudes in the development of pariwisata, particularly in homestay or desa wisata services. This research reinforces the concept by using a community-based approach that views the local population as the primary actor in the restoration of the mangrove ecosystem in Mengare Island. This research aims to increase active participation and provide input on potential new economic sources for local communities in the context of the Blue Economy.

The Third aspect is emphasis on increasing HR capacity for the blue economy. Research such as Setyawati et al. [23] and Radiarta et al. [24] has demonstrated the implementation of the Blue Economy concept in the field of maritime and maritime transportation. This research adapts the concept with a particular focus on the development of HR in pariwisata based on mangrove ecosystems. By incorporating digital technology, this research presents a new perspective on HR development that supports the Blue Economy, similar to what Tilley et al. [25] have stated in the context of the perikanan sector, but applied to small businesses based on marine.

Methodology

This research utilises a qualitative phenomenological approach that focuses on the development of human resource capacity in the tourism sector to support the concept of blue economy in Mengare Island. This research used in-depth interviews with purposefully selected informants, including village workers, tourism managers, business operators, and government officials, to understand the challenges of developing digital-based human resource development. The data was analysed using the NVIVO application to identify categories and themes related to the sustainable human resource capacity development model. Data triangulation and sequential discussion are used to test validity, while reliability is assessed by transcribing and code analysis [26], [27]. The findings of this research will be used to formulate strategies for the development of sustainable development management in

tourism based on green economy, which focuses on environmental sustainability and the use of digital technology [8], [28].

Results and Discussion

Interview Data

Keyword frequency in interviews, such as "mangrove", "tourism", and "masyarakat", indicates a primary focus on mangrove ecosystem and sustainable tourism development. Environmental aspects, cleanliness, and human resource training also become primary concerns in supporting sustainable tourism management. Community participation and the use of digital technology, such as social media and digital marketing, are crucial for supporting tourism promotion and sustainability. The involvement of local community, such as their ecological knowledge, is highly relevant in environmental rehabilitation and tourism service management. The support of the government in the form of policies and budgets also plays a crucial role in preserving the sustainability of the mangrove aquatic ecosystem.

The training of human resources receives special attention, as this topic has the highest frequency in research interviews. This training encompasses tourism management and promotion, with the aim of enhancing the skills of the local community in managing mangrove tourism sustainably. Digitalization, such as digital literacy and knowledge among visitors, is also considered crucial for optimizing the management of tourist destinations.

The role of stakeholders, particularly local governments, is very significant in supporting the development of tourism on Mengare Island. In addition, educational institutions, village governments, business actors, and community groups also contribute to the success of this tourism programme. Enhancement of human resource capacity, digitalization, and stakeholder collaboration are key elements in achieving sustainability of tourism based on mangrove ecosystems on Mengare Island.

Discussion

The development of human resource capacity in Tanjung Widoro Village, Mengare Island, Gresik Regency, is being carried out to support Tourism Areas based on the blue economy. This encompasses the development of human resources at the individual, organizational, and system levels, as well as the use of digitalization approaches. The development of individual capacity focuses on training, recruitment, staffing, and conducive work environment [13], [15].

Individual Level Human Resource Capacity Development

Training plays a crucial role in enhancing the skills of local human resources, particularly in administration, marketing, and digital literacy. This training includes the management of tourism based on the blue economy, which prioritises environmental sustainability [8], [28].

The recruitment process on Mengare Island should prioritize selecting persons who are competent and concerned about the environment. This process is crucial to support the sustainability of tourism, in line with the concept of green human resource management [18], [29].

HR motivation is influenced by contribution-based remuneration and transparency. Correct compensation has a crucial role in maintaining high-quality and motivated workforce [9], [10]. A conducive work environment enhances the performance and motivation of employees. Flexible work arrangements can help tourism managers maintain a balance between personal and work life [12], [15].

Organizational Level Capacity Development

The development of organizational capacity highlights the need of strong local leadership and a positive organizational culture. Vu et al. [20] show that effective leadership will increase collaboration and educate visitors.

Organisational culture based on collaboration and innovation is crucial for successful tourism management. This development is in line with the concept of the blue economy, which emphasizes the sustainable management of natural resources [30].

A more robust and well-structured organisational structure will assist in the more efficient management of human resources. The implementation of digitalization in data management and marketing also supports the enhancement of productivity [25].

The provision of fair and transparent incentives is crucial for enhancing the performance of human resources. A reward system that focuses on the environment can encourage human resources to participate in preserving nature [18].

Promoting the empowerment of local people in managing the mangrove ecosystem in Mengare is crucial for the sustainability of tourism. This empowerment includes collaborative and participatory-based training with various parties [13], [28].

Institutional Reform

Efforts to reform institutions on Mengare Island require support from stakeholders to ensure the sustainability of tourism. Policy and regulatory support from the government serve as a strong foundation in the management of this area [1], [20].

Stakeholders, including society, educational institutions, business actors, and local government, play a crucial role in developing the capacity of HR in Mengare. Collaborative efforts among these parties can accelerate the sustainable development of tourist areas [18].

Role of Stakeholders

Collaborative efforts between stakeholders and local government strengthen tourism management in Mengare. Legislative and regulatory support from the government is crucial for the sustainability of tourism based on the blue economy [10], [22].

Digital

Utilisation of digital technology in the management of mangrove tourism Mengare increase operational effectiveness. Efficient digital administration, digital literacy, and digital marketing have a crucial role in supporting the sustainability of tourism [25].

Implementing digitalization not only supports marketing but also expands community participation in tourism management. Literature in digital format can reduce technological disparities and enhance the effectiveness of training [31], [32].

Human resource empowerment, digitalization and training themes show that training is an important factor in developing human resource capacity in Mengare. Digitization expands training access and enhances its quality [25].

The Digital-Based Model of Sustainable Human Capital Development

The Digital-Based Model of Sustainable Human Capital Development in Mengare adopts a blue economy approach that integrates economic, social, and environmental dimensions. This model emphasizes the importance of institutional reform, HR empowerment, and training [22], [30].

The development of digital-based service delivery capacity in Mengare will help address challenges in digitalization and encourage active participation of the community in sustainable tourism management. The achievement of this goal requires strong stakeholder support and a robust institutional framework [33].

Conclusion

The digital-based human resource capacity development approach for blue economy tourism on Mengare Island emphasizes ongoing training in technical, managerial, and digital skills, as well as strengthening the organizational structure and implementing institutional change to improve all aspects of support. Furthermore, it encompasses the use of digital technology for marketing and operations, in conjunction with government and industry backing, and cooperation with local communities and educational institutions. This approach seeks to develop sustainable human resources with the ability to oversee tourism activities that enhance the local economy while safeguarding the maritime habitat.

This research recommends technical training in mangrove management, tropical cyclone mitigation, administrative and financial management, as well as digital training to support technology-based tourism management on Mengare Island. To strengthen sustainable tourism management, it is necessary to optimize the organizational structure and closer collaboration between the government, local communities, educational institutions and business actors. It is necessary to strengthen the support of promotion, both offline and online, in order to attract a larger number of visitors and enhance the welfare of the local community.

Acknowledgments

I would like to express my sincere appreciation to University 17 August 1945 for their unwavering support and invaluable counsel during the course of this research. Acknowledgements are extended to the Head of Tanjung Widoro Village, Bungah District, Gresik Regency and the Chair of the Tourism Awareness Group (POKDARWIS) for their indispensable support and insightful perspectives during the data gathering phase. Furthermore, I would like to express my gratitude to the Chairman of Village-Owned Enterprises (BUMDes) for their collaboration and ongoing assistance in enabling this research. In addition, I express profound gratitude to all the informants and respondents who diligently contributed their time, expertise, and experiences, which were crucial to the accomplishment of this research.

References

- [1] S. Yulianita and A. Romadhon, "Pengelolaan Mangrove Berkelanjutan untuk Kegiatan Ekowisata di Pantai Mengare Kabupaten Gresik," *Juvenil: Jurnal Ilmiah Kelautan dan Perikanan*, vol. 1, no. 1, pp. 29–37, Feb. 2020, doi: 10.21107/juvenil.v1i1.6723.
- [2] S. Mujanah, T. Ratnawati, and S. Andayani, "The strategy of tourism village development in the hinterland Mount Bromo, East Java," *Journal of Economics, Business & Accountancy Ventura*, vol. 18, no. 1, p. 81, Jun. 2015, doi: 10.14414/jebav.v18i1.385.
- [3] R. Nugroho and S. Mujanah, "Strategi Pemasaran dan Pendampingan Manajemen Usaha Kelompok Usaha Kecil Kerupuk di Kenjeran Kota Surabaya," *Jurnal Abdi Mas TPB*, vol. 3, no. 1, pp. 23–33, 2021, [Online]. Available: www.abdimastpb.unram.ac.id
- [4] R. A. Kartika, P. T. Ningrum, and A. D. Moelyaningrum, "Higiene Sanitasi Kesehatan Lingkungan Wisata Mangrove 'Exotic Mengare' di Pulau Mengare, Gresik pada Masa Pandemi COVID-19," *Jurnal Akuatika Indonesia*, vol. 7, no. 2, pp. 68–79, 2022.
- [5] N. Maulidiyyah and T. Setiadi, "Implementasi Program Corporate Social Responsibility (CSR) Pusat Restorasi dan Pembelajaran Mangrove Mengare," *The Commercio*, vol. 7, no. 3, pp. 139–149, 2023.
- [6] A. Asari *et al.*, *Manajemen SDM di Era Transformasi Digital*. 2023.
- [7] R. Prayuda, D. V. Sary, and U. I. Riau, "Strategi Indonesia dalam Implementasi Konsep Blue Economy terhadap Pemberdayaan Masyarakat Pesisir di Era Masyarakat Ekonomi ASEAN," *Indonesian Journal of International Relations*, vol. 3, no. 2, pp. 46–64, 2019.
- [8] S. Godfrey, "Defining the blue economy," *Maritime Affairs*, vol. 12, no. 1, pp. 58–64, Jan. 2016, doi: 10.1080/09733159.2016.1175131.
- [9] I. Ehnert and W. Harry, *Sustainability and Human Resource Management Developing Sustainable Business Organizations*, 1st ed. London: Springer-Verlag Berlin Heidelberg, 2014. [Online]. Available: <http://www.springer.com/series/11565>
- [10] Ž. Stankevičiute and A. Savanevičiene, "Designing sustainable HRM: The core characteristics of emerging field," *Sustainability (Switzerland)*, vol. 10, no. 12, Dec. 2018, doi: 10.3390/su10124798.
- [11] G. Dessler, *Human resource management*, 13th ed. New Jersey: Prentice Hall, 2013.
- [12] G. K. Stahl, C. J. Brewster, D. G. Collings, and A. Hajro, "Enhancing the role of human resource management in corporate sustainability and social responsibility: A multi-stakeholder, multidimensional approach to HRM," *Human Resource Management Review*, vol. 30, no. 3, Sep. 2020, doi: 10.1016/j.hrmr.2019.100708.
- [13] D. Horton *et al.*, *Evaluating Capacity Development Experiences from Research and Development Organizations around the World*. 2003. [Online]. Available: www.idrc.ca/booktique.

- [14] Deborah. Eade, *Capacity-building : an approach to people-centred development*. Oxfam (UK and Ireland), 1997.
- [15] M. S. Grindle, *Getting Good Government Capacity Building in the Public Sectors of Developing Countries Edited by*. Harvard: Harvard Institute for International Development, 1997.
- [16] G. Pauli, "The Blue Economy," *Japan Spotlight*, pp. 14–17, 2011. Accessed: Mar. 11, 2024. [Online]. Available: https://www.jef.or.jp/journal/pdf/175th_cover04.pdf
- [17] World Bank, "Blue Economy Development Framework Growing the Blue Economy to Combat Poverty and Accelerate Prosperity," 2016.
- [18] F. Mahdy, M. Alqahtani, and F. Binzafrah, "Imperatives, Benefits, and Initiatives of Green Human Resource Management (GHRM): A Systematic Literature Review," Mar. 01, 2023, *Multidisciplinary Digital Publishing Institute (MDPI)*. doi: 10.3390/su15064866.
- [19] A. Kainzbauer, P. Rungruang, and P. Hallinger, "How does research on sustainable human resource management contribute to corporate sustainability: A document co-citation analysis, 1982–2021," Nov. 01, 2021, *MDPI*. doi: 10.3390/su132111745.
- [20] A. D. Vu, T. Vo-Thanh, T. T. M. Nguyen, H. L. Bui, and T. N. Pham, "Tourism social sustainability in remote communities in Vietnam: Tourists' behaviors and their drivers," *Heliyon*, vol. 10, no. 1, Jan. 2024, doi: 10.1016/j.heliyon.2023.e23619.
- [21] I. Junaid, "Models Of Community Capacity Building For Homestay Management," *Jurnal Ilmu Sosial dan Humaniora*, vol. 10, no. 2, p. 247, Aug. 2021, doi: 10.23887/jish-undiksha.v10i2.33221.
- [22] S. Mujanah, Candraningrat, G. N. Febrianto, and T. Ratnawati, "Community Participation In Developing Cupak Village As A Tourist Destination In Jombang, East Java, Indonesia," *Business and Finance Journal*, vol. 8, no. 1, pp. 93–104, 2023, [Online]. Available: www.onlinedoctranslator.com
- [23] L. R. Setyawati, Hadistian, D. D. Cahya, Marsetio, A. D. Novarianti, and B. D. Said, "Implementasi Konsep Ekonomi Biru dalam Pembangunan Masyarakat Pesisir di Kota Sabang," *Jurnal Education and development*, vol. 9, no. 4, pp. 178–185, 2021.
- [24] I. N. Radiarta, E. Erlania, and J. Haryadi, "Analisis Pengembangan Perikanan Budidaya Berbasis Ekonomi Biru dengan Pendekatan Analytic Hierarchy Process (AHP)," *Jurnal Sosial Ekonomi Kelautan dan Perikanan*, vol. 10, no. 1, p. 47, Jun. 2016, doi: 10.15578/jsekp.v10i1.1247.
- [25] A. Tilley *et al.*, "The impacts of digital transformation on fisheries policy and sustainability: Lessons from Timor-Leste," *Environ Sci Policy*, vol. 153, Mar. 2024, doi: 10.1016/j.envsci.2024.103684.
- [26] J. W. Creswell, *Research Design Pendekatan Metode Kualitatif, Kuantitatif, dan Campuran*, 4th ed. Yogyakarta: Pustaka Pelajar, 2016.
- [27] S. Sugiyono, *Metode Penelitian Kualitatif*, 1st ed. Bandung: Alfabeta, 2022.
- [28] G. Pauli, *Blue Economy 3.0 : The Marriage of Science, Innovation and Entrepreneurship Creates A New Business Model That Transforms Society*, 10th ed. 2017.
- [29] C. Cabral and R. L. Dhar, "Green competencies: insights and recommendations from a systematic literature review," Jan. 19, 2021, *Emerald Group Holdings Ltd*. doi: 10.1108/BIJ-11-2019-0489.
- [30] M. Youssef, "Blue Economy Literature Review," *International Journal of Business and Management*, vol. 18, no. 3, p. 12, Apr. 2023, doi: 10.5539/ijbm.v18n3p12.
- [31] Y.-C. Shih, "Ocean governance in practice: A study of the application of marine science and technology research techniques to maritime law enforcement in Taiwan," *Mar Policy*, vol. 163, p. 106081, May 2024, doi: 10.1016/j.marpol.2024.106081.
- [32] Z. A. Torabi, M. R. Rezvani, C. M. Hall, and Z. Allam, "On the post-pandemic travel boom: How capacity building and smart tourism technologies in rural areas can help - evidence from Iran," *Technol Forecast Soc Change*, vol. 193, Aug. 2023, doi: 10.1016/j.techfore.2023.122633.

- [33] E. McKinley *et al.*, “Going Digital - Lessons for Future Coastal Community Engagement and Climate Change Adaptation,” *Ocean Coast Manag.*, vol. 208, Jul. 2021, doi: 10.1016/j.ocecoaman.2021.105629.