



PENTAHHELIX COLLABORATION IN THE DEVELOPMENT OF THE BATU CERMIN CAVE TOURISM AREA IN LABUAN BAJO, WEST MANGGARAI DISTRICT

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ABSTRACT

This study aims to determine the pentahelix collaboration in the development of the batu cermin cave tourism area in Labuan baju, west manggarai, the research method used is qualitative with primary and secondary data, data analysis techniques in the form of interviews and documentation collaboration according to fairuza (2017). The result showed that in the development of the batu cermin cave tourism area, stakeholders have the same goal, but need to harmonize thought and agreements. Clarity on the role of each stakeholders already exists but needs to be improved. Stakeholders show a high commitment to improving the tourism potential in this area. Mutually beneficial relationships encourage cooperation in tourism development. Good communication between stakeholders is key to maintaining relationships and promoting the tourism potential of batu cermin.

Keywords:(a) Pentahelix Collaboration, (b) Batu Cermin Cave Area Development.

1. INTRODUCTION

Indonesia as an archipelago has the potential to develop a very large tourism industry, indonesia is also a country that has tens of thousands of islands. The beautiful expanse of islands in Indonesia make tourism an attraction for many people. One of the impacts obtained by the existence of tourism is to increase income for the state or local government that manages a tourism in an area will have an impact on improving the economy of the surrounding community due to employment opportunities. To improve the tourism sector in Indonesia, president joko widodo at the limited cabinet meeting on july 15, 2019 in Jakarta has set the development of 5 super priority destinations. Super priority destinations. Super priority tourism destinations in five regions are believed to be able to boots indonesia's tourism industry in the future. The five super priority areas which are national tourism strategic area (KSPN) are spread a cross five provinces in the western, central and eastern parts of indonesia. The five super priority destinations (DSP) are lake toba in north Sumatra, borobudur in central java, mandalika in west nusa tenggara (NTB), labuan bajo in east nusa tenggara (NTT), and likapung in north Sulawesi. (Indonesia.go.id). these five destinations have a great potential, uniqueness and tourist attraction, but still need a lot of touches to be developed. The development of priority destinations is a form a realizations of the plan. The development of priority destinations is a form of realization of the plan. The development of priority destinations is a form realizations of the 2010-2025 national tourism development master plan stipulated in government regulation (PP) No. 50 of 2014. This PP is the basis for tourism development in order to improve the quality and quantity of destinations and

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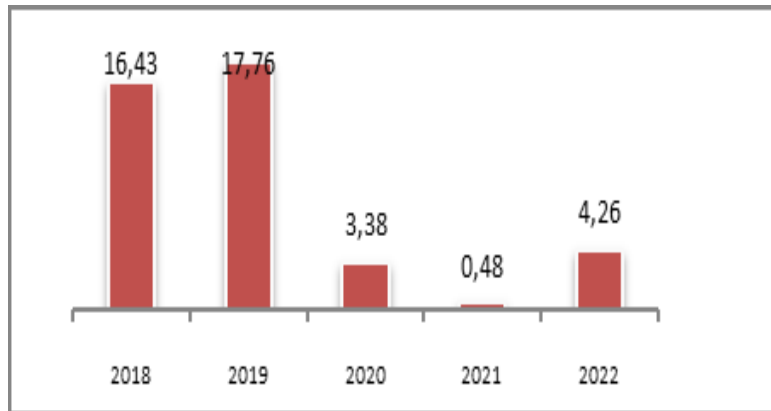
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realize a tourism industry capable of driving the national economy.
(source://kemenparekraf.go.id).

Table 1
Indonesia Tourism Revenue 2018-2022



Source: ministry of tourism and creative economy, (2023)

From the table above, Indonesia's tourism revenue in 2018 reached US \$ 16.43 billion and increased in 2019 to reach US \$ 17.76 billion. However, the emergence of the COVID-19 Pandemic has a huge impact on Indonesia's tourism revenue. In 2020, Indonesia's tourism revenue dropped dramatically compared to the previous year. The amount of tourism revenue in 2020 reached US \$ 3.38 billion and continued to decline in 2021 to reach US \$ 0.49 billion. With economic recovery efforts in 2022 foreign exchange earnings from Indonesia's tourism sector reached US \$ 4.26 billion in 2022. This value has jumped up to 769.39% compared to the previous year which only amounted to US \$ 0.49 billions. It is also three times higher than this year's target. The increase in tourism revenue in Indonesia after the recovery of Covid-19 is certainly a reference for the government to aggressively carry out tourism development, especially in the Five Super Priority Areas. Development in the five Super Priority Destinations (DSP) generally includes physical and non-physical infrastructure development. Physical development focuses on the development of amenity, accessibility, and attractions. Meanwhile, non-physical development includes the development of human resource (HR) competencies, the development of travel patterns for promotional efforts to the creative economy in each destination. In his 2019 directives, President Joko Widodo emphasized in detail six important points to be addressed in each Super Priority Destination, including:

- 1) Spatial arrangement and control;
- 2) Development of access and connectivity to tourist destinations;
- 3) Constructions of facilities at tourist sites including the arrangement of street vendors to improve the quality and cleanliness of toilets (sanitation facilities) at tourist attractions;
- 4) Improving the quality of human resources
- 5) Marketing of local products



6) Massive promotion

The government, through the Ministry of Tourism and Creative Economy and a number of other ministries and institutions, will ensure that tourism development in the five Super Priority Destinations (DSP) must uphold the principles of quality, sustainable tourism and uphold the empowerment of local communities in each super priority destination area. Development in the five Super Priority Destinations (DSP) is carried out periodically. The 2020-2024 RPJMN (National Medium-Term Development Plan) mandates that development is prioritized for the development of supporting roads, ports and airports, pioneering tourism destinations, developing tourist villages, developing tourist area amenities, and developing in regions and areas. (kemenparekraf.go.id). Labuan Bajo as one of the Super Priority Areas (DSP) located in Flores, West Manggarai Regency, East Nusa Tenggara (NTT) is projected to become a premium tourist destination in the future with all the potential and tourist attractions that are different from the others.

Labuan Bajo has been known as the gateway to Komodo Island and Komodo National Park, a conservation park for the giant Komodo monitor lizard, which is a UNESCO world heritage site. This ecotourism will certainly continue to invite tourists to come. Infrastructure and tourism development in the Labuan Bajo Super Priority Destination (DSP) area began in 2019 to support Labuan Bajo to become a world-class premium natural and marine tourism destination. The arrangement of the area, the construction of various facilities in Labuan Bajo, and the improvement of connectivity within and to this area are the focus of integrated infrastructure development in this DSP. Development in the Labuan Bajo Super Priority Destination (DSP) area also includes development in the 400-hectare authorization zone in the Nggorang Bowosie Forest by the Labuan Bajo Flores Authority Implementing Agency (BPOLBF). On this authoritative land, the government plans to build tourism facilities such as the Arts Center, Tourism Information Center, and the construction of more hotels to pursue the total need for 2,000 hotel rooms in the Labuan Bajo area. (kemenparekraf.go.id). The Ministry of PUPR has completed a number of facility developments at Puncak Waringin, which is known as the best viewpoint to see the Labuan Bajo area from a height. At Puncak Waringin, various facilities such as souvenir centers, commercial buildings, toilets and amphitheatres have been built.

The government is also structuring and developing the waterfront area (Marina Beach Area-Bukit Pramuka) as well as structuring the Rinca Island area and developing the Batu Cermin Cave area. The development of the Batu Cermin Cave area certainly supports the existence of Labuan Bajo as a super priority destination. Batu Cermin Cave is a cave located on a dark rock hill in Labuan Bajo, West Manggarai, Flores, East Nusa Tenggara, Indonesia. The cave covers an area of 19 hectares, and is about 75 meters high, providing a unique charm with sparkling walls. This tunnel cave tour is located in Bukit Batu and has an area of about 19 hectares. The height of this tourist area is approximately 75 m. This tunnel cave was discovered by an archaeologist in 1951, but unfortunately the Batu Cermin area which is one of the iconic Labuan Bajo is less attractive to tourists visiting Labuan Bajo.

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**Table 2 Number of Tourists visiting Labuan Bajo**

Number	Month	Number Of Travelers
1.	October 2022	13.939 Travelers
2.	November 2022	10.792 Travelers
3.	December 2022	11.535 Travelers
	Number Of Travelers	36.266 Travelers

**Sources: Tourism, Creative Economy And Culture Office (Disparekrafbud)
West Manggarai District, (2023)**

Table 3 Number Of Tourist Visiting Batu Cermin

Number	Month	Number Of Travelers
1.	October 2022	959 Travelers
2.	November 2022	1.282 Travelers
3.	December 2022	1.884 Travelers
	Number Of Travelers	4.085 Travelers

**Sources: Tourism, Creative Economy And Culture Office (Disparekrafbud)
West Manggarai District, (2023)**

Based on the table above, it is known that the number of visitors to the city of Labuan Bajo is 36,266 tourists with details of October 13,939 people, November 10,792 people, and December 11,535 people. The high number of tourists visiting Labuan Bajo should have a significant impact on the development of the Batu Cermin destination. However, since its reopening on October 17, 2022, the number of tourist visits to the Batu Cermin Cave Labuan Bajo until December 29, 2022 was recorded at 4,085 people. The number of tourists visiting Batu Cermin Cave does increase every month with details of the number of tourist visits in October as many as 959 people, November as many as 1,282 people and December as many as 1,884 people. If calculated from October to December, the number of visitors to the Battu Mirror area is only 4,125 tourists. This number is certainly far from the number of tourists visiting Labuan Bajo. The small number of tourists visiting the Batu Cermin Cave tourism area compared to the number of tourists who flock to Labuan Bajo is a significant challenge for tourism actors in developing the Batu Cermin area. Although Batu Cermin Cave has amazing natural potential with unique rock formations and mesmerizing natural mirrors, lack of popularity is the main cause of low tourist visits. To overcome this, collaborative efforts between the government, tourism actors, and the community are needed.

In overcoming the challenge of the lack of tourists visiting the Batu Cermin Cave area, collaboration through the penta-helix model can be an effective strategy. The penta-helix model involves five main parties, namely government, industry, academia, civil society and media, working in an integrated manner to achieve common goals in the development of an area or sector. In the context of Batu Cermin Cave tourism, the government can play an important role in



providing regulations that support sustainable tourism development and facilitate the necessary infrastructure investments. Businesses can assist in developing attractive and sustainable tourism packages, while academia can provide the latest knowledge and research to support sustainable management of tourism destinations. Local communities, can engage in active participation in tourism development and environmental conservation, while the media can provide a platform to widely promote Batu Cermin Cave to the public. With collaboration through the penta-helix model, Batu Cermin Cave tourism development efforts can become more coordinated, sustainable, and successful in attracting more tourists and providing greater benefits to local communities and the environment. The role of stakeholders in tourism development also cannot be ignored in tourism development policies in Indonesia, especially Batu Cermin Cave through empowerment activities carried out, including the collaborative process of tourism governance of Batu Cermin Cave. Based on 2 experts, namely: Anshell and Gash (2008) map the collaborative process starting from face to face dialogue, building trust, building commitment to the process, shared understanding, then the formation of intermediate outcomes.

The collaboration of the pentahelix model in the tourism development of Batu Cermin Cave is seen from the parameters of the involvement of various actors to work together in optimizing the development of the Batu Cermin Cave Tourism Area. Lekatompessy, (2020) found that optimizing pentahelix in local-based tourism development can be done by increasing coordination and collaboration between all actors in the region. Similar to the discussion of the researcher's research that collaboration and coordination are very important in increasing tourism potential, although in this study researchers discussed the components of collaboration in efforts to develop tourism potential. These components complement each other, so collaboration will be successful if it fulfills all components. The collaboration components referred to in this study are: Mutual understanding, administration, trust, commitment, mutuality, communication and collaboration environment (Fairuza 2017).

The success of the penta-helix model collaboration in the Batu Cermin area development effort is highly dependent on the alignment and synergistic interaction between the key components of the collaboration. These range from a shared understanding of the area's potential and challenges to trust built among all stakeholders, including the government, tourism industry, academia, civil society and media, as well as a strong commitment to realizing a shared vision for sustainable development. In a conducive collaboration environment, where mutuality and effective communication are established, all parties can work together optimally to create innovation, promote sustainability, and optimize the tourist experience, thereby driving local economic growth and environmental preservation in the Batu Cermin Region. Seeing the phenomena and to see the collaboration of stakeholders above, the author wants to study further and analyze the **"Pentahelix Collaboration in the Development of the Batu Cermin Cave Tourism Area, Labuan Bajo, West Manggarai Regency."**



2. RESEARCH METHODS

This research used a qualitative approach to reveal the collaboration of penta helix actors in the development of the Batu Cermin Tourism Area. Research informants were selected purposively and included the head of the tourism office, tourist attraction managers, academics, local souvenir traders, village communities, and journalists. Primary data was obtained through purposive sampling techniques, while secondary data came from documents related to the collaboration of penta helix actors. Data collection techniques included observation, interviews, and documentation studies. Data analysis was conducted through data reduction, data presentation, and conclusion drawing. Data validity was tested through source triangulation, comparing data from various collection techniques and data sources.

3. RESEARCH RESULTS & DISCUSSION

Rahu, (2021) found that the importance of Pentahelix model collaboration with the involvement of government, community, private sector, media and academics. Lekatompessy, (2020) found that optimizing pentahelix in local-based tourism development can be done by increasing coordination and collaboration between all actors in the region. Similar to the discussion of researchers' research that collaboration and coordination are very important in increasing tourism potential, although in this study researchers discussed the components of collaboration in efforts to develop tourism potential. These components complement each other, so collaboration will be successful if it fulfills all components. The collaboration components referred to in this study are:

Shared Understanding / Shared Goals

The component of shared understanding / common goals in the Batu Cermin Tourism Area is to harmonize the thoughts and unify the goals of each stakeholder so that later all stakeholders together achieve these goals. In observations and interviews to see collaboration, one of the components of a common understanding /common goal of all stakeholders in the Batu Cermin Tourism area is for the same interests and goals, namely the development of the Batu area. However, decision making still does not involve all parties in it.

In making decisions, it would be better if the government invited all sectors involved so that later the Batu Cermin area could be better in the future. As research conducted by Fairuza (2017) with the results of the components of mutual understanding and decision making, there are different interests but all stakeholders have the same goal, namely increasing welfare and increasing the tourism potential of the Batu Cermin Tourism area.

Administration

In the process of identifying tourism potential in the Batu Cermin area, administration in this case is defined as management in collaboration, namely organizing what is needed to achieve a goal through an effective system. The results of observations and interviews conducted by researchers, from the administration component consisting of stakeholder roles, there is clarity of roles for each stakeholder and stakeholder. In Fairuza's research, (2017) states that the administrative component consisting of the role of each stakeholder, there is clarity of roles for each stakeholder. This role clarity triggers an interdependent relationship. In the Batu Cermin



area, dependence between stakeholders already exists. So that this administrative collaboration component is maximized. The collaboration component, there is an interdependent relationship, namely businesses that need community crafts and get permission from the government in carrying out their role. In the course of its role as a tourism actor, the media helps in promoting these tourist attractions through online information media and researched by academics. Another thing is that there is also a promotion carried out by the media on the tourism potential of the amenity owned by the Batu Cermin area.

Trust

Trust is an important component of collaboration. Trust can be defined as an individual's belief in another individual. Trust can affect mutuality between actors in collaboration. From the trust component in the Batu Cermin area, there is already trust between stakeholders. The collaboration component of trust is between the government that gives business licenses to businesses. Businesses are also trusted by the community in selling local handicraft products to tourists.

This component of trust also occurs between the community and the media, where the media believes that the Batu Cermin area managed by the Government has the potential to become a tourist area, so the media promotes this tourist area. The relationship of trust between the government and the community also exists, with the existence of a communication forum between the community and the government to support this tourist area. Academics also conduct research on this area, the government trusts academics as stakeholders who are tasked with conducting research on this area. Although the duties of academics in community service have not been carried out in this area.

Commitment

Commitment is a very important component in the sustainability of collaboration. Commitment in collaboration can be influenced by high trust, mutuality, and shared understanding, if it is higher, the commitment between stakeholders will be higher too. From the collaboration component, namely commitment, in the interviews and observations that researchers conducted, researchers found that there was already a stakeholder commitment in increasing tourism potential in the Batu Cermin area.

Mutuality

The next component according to Fairuza (2017) to see the creation of a collaboration is through mutuality. Mutuality is a reciprocal relationship of interdependence between individuals. Mutuality can be influenced by trust between stakeholders and affects the commitment of stakeholders in a collaboration. In the Batu Cermin area, there is a reciprocal relationship and benefits between the business and the community where the business needs local covenant products to increase the tourism potential of the attraction and the community as a local covenant provider needs the business to sell local covenant products. In this case, the private sector is benefited because getting local covenant products is used by businesses as an attraction for tourist visits to the Batu Cermin area. This component also occurs between the private sector and



the community with the media, where the business and the community benefit because of the promotion carried out by the media. And the media benefits from the content produced from the promotion carried out in this area.

Another mutually beneficial relationship exists in the relationship between government and business. In this case, the private sector is benefited in terms of licensing and the government is benefited because it has carried out its role in administration in the Batu Cermin Tourism area. Academics with a mutuality component occurs because academics still carry out their role as researchers in this area. Research provides information related to tourism potential in the Batu Cermin area.

Communication

The communication component in the Batu Cermin area serves to maintain relationships between stakeholders in collaboration. In observations and interviews to see the collaboration of one of the communication components of all stakeholders in the Batu Cermin area, there is good communication between stakeholders. The collaboration component of communication, that is, the collaboration component, there is communication made by the government with the community as managers in the Batu Cermin area.

This communication also discusses the tourism potential of the Batu Cermin area. Communication between the community, government, media, private sector, academics Other communication is also involved between the media and the community and business, in terms of introducing and promoting the potential of the Batu Cermin area and academics are also involved because they participate in researching tourism potential in the Puncak Kabun area and communicating with the government, community, and business.

Collaboration environment

The collaboration environment component in the Batu Cermin area serves to determine the presence or absence of conflicts between stakeholders and efforts made by stakeholders to overcome any conflicts that occur. In observations and interviews to see the collaboration of one of the components of the collaboration environment of all stakeholders in the Batu Cermin area, there were no conflicts that occurred among the existing stakeholders.

4. CONCLUSION

From the description given, it can be concluded that collaboration in developing tourism potential in the Batu Cermin area involves various important components, which include: Shared Understanding/Common Goals: Stakeholders have the same goals in the development of tourist areas, but improvement is still needed in the alignment of thoughts and agreement on common goals. Administration: Effective collaborative management in organizing all needs to achieve common goals. The role and clarity of the role of each stakeholder already exists but still needs to be improved. Trust: Trust between stakeholders has been established, influencing positive interactions between them in carrying out their respective roles. Commitment: Stakeholders show high commitment in improving tourism potential in the Batu Cermin area. Mutuality: Mutually beneficial relationships between stakeholders, encouraging cooperation in various aspects of



tourism development. Communication: Good communication between stakeholders is key in maintaining relationships and promoting the tourism potential of the Batu Cermin area. Collaboration Environment: The absence of conflict between stakeholders shows that the collaboration environment in the Batu Cermin area is quite conducive to the development of tourism potential.

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The pentahelix model in Batu Cermin Cave tourism development has advantages such as an integrated approach involving government, industry, academia, civil society, and media, as well as complementary multisector collaboration and a focus on local development. However, this model has weaknesses such as complicated coordination, limited resources, and dependence on commitment between actors. For future research, it is recommended to analyze the dynamics of collaboration, evaluate long-term impacts, review the key components of pentahelix, and conduct comparative case studies with other destinations in Indonesia. This approach will help improve the effectiveness and sustainability of tourism development. Thanks to the Lord Jesus Christ who gave us wisdom so that this research can be completed well.

In addition, we realize that in this research there are contributions from various parties who support us in the success of our research, for which we express our deepest gratitude. In this study there are also shortcomings and advantages that are owned because of that, hopefully every shortcoming that exists, in the future can be corrected and every advantage can be a policy recommendation for the development of mirror stone cave tourism in Labuan Bajo.

REFERENCES

Books:

- Ismayanti. (2020). *Basics of tourism*. Jakarta: Sahid University Jakarta.
- Pendit, N. S. (2006). *Tourism science: A preliminary introduction*. Jakarta: Pradnya Paramita.
- Saleh, C. (2020). *Concept, definition, and purpose of collaboration*. Open University Library.
- Siyoto, S., & Sodik, M. A. (2015). *Basic research methodology*. Yogyakarta: Literacy Media Publishing.
- Sugiyono, P. D. (2013). *Quantitative, qualitative, and R&D research methods*. Bandung: Alfabeta.
- Suvena, I. K., & Widyatmaja, I. N. (2017). *Basic knowledge of tourism science*. Denpasar: Pustaka Larasan.
- Yoeti, O. A. (2003). *Tours and travel marketing*. Jakarta: Pradnya Paramita.
- Zalukhu, S., & Meyers, K. (2009). *Basic guidelines for ecotourism implementation*. Jakarta: UNESCO Office.

Journal Articles:

- Ahmad, Y. T. (2020). Perspective of Penta Helix ABCGM collaboration on the Kangpisan program in alleviating waste management problems (Phenomenological study in Sukaluyu Village, Bandung City) [Unpublished master's thesis]. University of Education Indonesia.
- Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of Public Administration Research and Theory*, 18(4), 543-571.



- Aribowo, H., Wirapraja, A., & Putra, Y. D. (2018). Implementation of the Pentahelix model collaboration in order to develop tourism potential in East Java and improve the domestic economy. *Journal of MEBIS (Management and Business)*, 3(1).
- Fairuza, M. (2017). Collaboration between stakeholders in inclusive development in the tourism sector (Case study of Red Island tourism in Banyuwangi Regency). *Public Policy and Management*, 5(3), 1-13.
- Kagungan, D., Duadji, N., & Meutia, I. F. (2021). Collaboration of Pentahelix model in tourism industry development policy in Pesawaran Regency. *IICIS Proceedings*.
- Khusniyah, K. (2020). Implementation of the Pentahelix model as a foundation for the development of tourism potential in Kediri Regency (Literature study). *Kahuripan National Seminar*.
- Ministry of Tourism and Creative Economy. (2020). *Guidelines for the implementation of cleanliness, health safety, and environment sustainability in tourism attractions*.
- Rozikin, M. (2019). Collaboration between Penta Helix stakeholders in creative city development. *Scientific Journal of Development Planning, Pangripta Jurnal*.
- Sopacua, I. O., & Primandaru, N. (2020). Implementation of Quadruple Helix in encouraging creative economy growth. *Wahana: Journal of Economics, Management and Accounting*, 23(2), 224-238.
- Widjajani, F., Hidayat, A., & As. (2016). Quadruple Helix model as a regional innovation model (Literature review). *Sociohumanitas Journal: Journal of Humanities*, 18(1), 85-95.
- Winarno, T., Said, M. M., & Hayat, H. (2021). Development of using Kemiren Traditional Tourism Village through a Penta Helix approach. *Journal of Governance and Local Politics (JGLP)*, 3(2), 137-145.

Legislation:

- Government Regulation of the Republic of Indonesia No. 50 Year 2014. About Morotai Special Economic Zone.
- Presidential Regulation (Perpres) No. 32 of 2018 concerning the Labuan Bajo Tourism Area Management Authority Agency.
- Tourism Law No. 10 of 2009 concerning General Provisions of Tourism.