

## COOPERATION MODEL FOR THE DEVELOPMENT OF WHALE SHARK TOURISM IN LABUHAN JAMBU VILLAGE, SUMBAWA REGENCY

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### Abstract

This study aims to analyze the collaboration patterns among stakeholders (government, local community, private sector, academia, and media) in developing the whale shark tourism destination using the pentahelix model approach. This research employed a descriptive qualitative method, with data collected through in-depth interviews, observations, and document analysis. The findings reveal that the pentahelix collaboration has been established, although the roles and contributions of each stakeholder differ. The government plays a role in regulatory formulation, infrastructure provision, and tourism promotion; the local community actively manages and guides tourism activities; the private sector contributes through tourism services and tour packages; academia is engaged in research, community service, and student field programs; while the media supports promotion and public education. This collaboration supports the implementation of Community-Based Tourism (CBT), positioning the local community as the main actor, yet it still faces challenges such as limited management capacity, suboptimal regulations, and a lack of fully integrated coordination among stakeholders. This study emphasizes that the development of whale shark tourism in Labuhan Jambu Village requires continuous strengthening of pentahelix collaboration to maintain a balance between economic, socio-cultural, and ecological interests.

**Keywords:** Collaboration Pattern, Pentahelix, Community-Based Tourism, Whale Shark, Labuhan Jambu Village

## INTRODUCTION

The tourism sector is globally recognized as a crucial pillar for fostering economic growth and sustainable regional development (Zamfir & Corbos, 2015). In Indonesia, maritime tourism holds significant potential, and the Sumbawa Regency in West Nusa Tenggara (NTB) offers a distinctive attraction: the presence of the Whale Shark (*Rhincodon typus*) population in the waters of Saleh Bay. This specific phenomenon, characterized by the semi-resident nature of the whale sharks near Labuhan Jambu Village, sets it apart from other whale shark aggregation sites, providing a consistent and unique foundation for ecotourism development (Yayasan Konservasi Indonesia, 2018).

The region's tourism potential was formally recognized following the Sail Moyo Tambora Festival in 2018. Subsequently, Labuhan Jambu was officially designated as a tourist village through the NTB Governor's Decree No. 050.13-366 of 2019. Since this designation, visitor arrival data has shown a consistent upward trend, confirming the whale shark as a major attraction contributing significantly to Sumbawa's tourism profile (Azizurrohman et al., 2021). The management paradigm chosen for this destination is Community-Based Tourism (CBT), a model intended to directly empower the local community.

CBT fundamentally places the local population as the main actors in the planning, operation, and benefit distribution of the tourism activities, thereby promoting conservation alongside economic welfare (Yapanto et al., 2023). The active involvement of local community groups, such as POKDARWIS (Tourism Awareness Group) and Komunitas Kawan, is vital. They are responsible for daily operations, including responsible whale shark guiding, enforcing local conservation rules (Perdes/Village Regulations), and ensuring minimal ecological impact, aligning tourism practices with local cultural values.

However, despite its high potential and the adoption of the CBT model, the Ecotourism destination in Labuhan Jambu faces several complex, multidimensional challenges. These challenges include inherent limitations in local human resource capacity and management skills within POKDARWIS, which can hinder service standardization and financial transparency. Furthermore, there is a recognized need for more effective and integrated regulations to decisively balance conservation imperatives with the pressing demands of economic development (Rahman, 2021).

Crucially, the implementation of sustainable tourism requires effective coordination, which is hampered by insufficient integration and varying commitment levels among the various external stakeholders involved in the tourism value chain. Addressing these complex policy and implementation challenges necessitates a highly structured and synergistic approach involving multiple sectors (Sudiana et al., 2023), as the issues extend beyond the capability of any single actor—whether it be the government or the community alone—to resolve.

Consequently, the Pentahelix Model—a collaborative framework that integrates five key societal elements: Government, Academia, Private Sector, Community, and Media—is deemed the most appropriate analytical lens. This model is essential for mapping and understanding the complex interplay of roles necessary for holistic and sustainable regional development (Yuningsih et al., 2019). This study, therefore, aims to comprehensively analyze the specific Cooperation Pattern established among these five Pentahelix elements in the context of CBT. By identifying the factors that influence the effectiveness of this

collaboration, this research seeks to provide strategic recommendations for strengthening partnership mechanisms and ensuring the long-term ecological and socio-economic sustainability of the Whale Shark tourism destination in Labuhan Jambu Village, Sumbawa Regency.

## REVIEW OF LITERATURE

The theoretical foundation for this study is built upon five key concepts essential for analyzing multi-stakeholder collaboration in the context of community-based conservation tourism.

Social Exchange Theory (SET), established by Homans (1958) and later systematized by Blau (1964) functions as the primary motivational framework, asserting that social interactions are governed by the principle of reciprocity. Actors will rationally engage in relationships only if the perceived rewards or benefits outweigh the associated costs or sacrifices (Amirullah, 2015). In the tourism context, this theory explains the fundamental rationale for cooperation among stakeholders: sustained commitment in the *Pentahelix* model is only achieved when actors experience maximal utility and a positive balance of exchange. Understanding this underlying motivational driver is crucial before examining the managerial models that rely on community consensus.

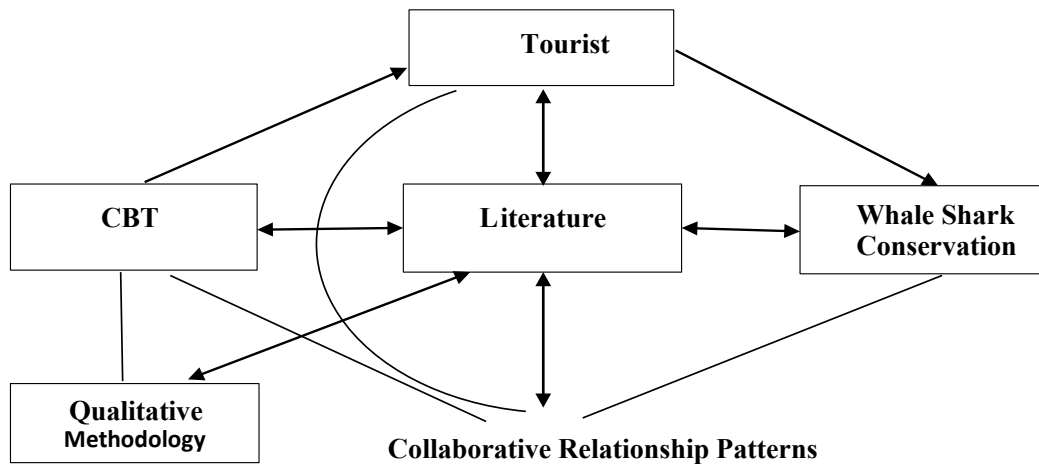
This motivational framework naturally leads to the Community-Based Tourism (CBT) model, which is the core management philosophy adopted for local destination empowerment. CBT emphasizes the direct and central role of local communities as the principal managers and beneficiaries of the destination (Yapanto et al., 2023). Suansri (2003) outlines that successful CBT relies heavily on promoting local ownership, ensuring environmental sustainability, and guaranteeing the equitable distribution of economic returns. Empirically, CBT has been shown to be effective not only in generating local welfare but also in reinforcing social independence and preserving cultural and ecological assets (Giampiccoli et al., 2020). However, the literature also warns that the effectiveness of CBT is contingent upon overcoming internal challenges such as limited managerial capacity and disparities in power dynamics (Curcija et al., 2019).

To successfully implement the extensive goals of CBT and overcome its inherent challenges, deliberate collective action is required. Thus, the concept of Patterns of Cooperation in Tourism becomes essential. This concept refers to the intentional and shared effort by multiple parties to achieve collective goals through the strategic allocation of resources and labor (Suhartanto, 2019). This collective action is crucial in the tourism sector because it enables synergy between parties to optimise resources, create sustainable destinations, and mitigate risks. Effective cooperation ensures efficiency, enhances service quality, and facilitates resource gathering, which is often beyond the capacity of a single entity (Amirullah, 2015).

However, when cooperation involves public resources and policy implementation, a formal structure is necessary to ensure continuity. This necessity leads to the Collaborative

Governance framework, which provides the formal mechanism for institutionalizing cooperation. Defined by (Ansell & Gash, 2007) as a formal, consensus-oriented process, it mandates the direct engagement of non-governmental actors in collective policy making. The success of this governance model is measured through the Collaborative Governance Regime (CGR), which emphasizes an iterative cycle involving principled engagement, shared motivation (building trust and commitment), and capacity for joint action (Emerson et al., 2012). This structure is vital for creating an inclusive environment where local communities and other stakeholders share ownership of the policy outcomes.

The logical culmination of this structured governance in a multi-sector environment is the Pentahelix Model. This strategic framework is used to integrate the five key societal actors—Government, Academia, Private Sector, Community, and Media—for holistic development (Yuningsih et al., 2019). Empirical studies have showcased the effectiveness of this model in destination development, such as promoting *Smart City* concepts in Singapore (Phang, 2018) and nature-based tourism in Iceland (Vestergaard, 2020). Conversely, research from (Rahu & Suprayitno, 2021) suggests that the model’s efficacy can be hampered by low coordination and a lack of binding legal agreements (MOU). This reinforces the critical necessity of a detailed analysis of its operational dynamics and the factors influencing its sustainability in the specific local context of Labuhan Jambu (Sudiana et al., 2023).



**Figure 1.**  
**Flow of Thinking**

## RESEARCH METHOD

The research employed a qualitative approach using a descriptive method, aiming to understand the phenomenon of collaboration patterns as experienced by the research subjects. Qualitative research intends to interpret phenomena such as behavior, perception, motivation, and actions through detailed descriptions in words and language, within a natural, specific context, utilizing naturalistic methods (Moleong, 2016). This study specifically aimed to

construct the cooperation pattern for developing the Whale Shark tourism destination in Labuhan Jambu Village, Sumbawa Regency.

### **Research Design and Location**

The qualitative method significantly influenced the research substance by positioning the researcher as the primary instrument (key instrument) who directly interacts with informants to actively collect data related to the cooperation pattern among stakeholders. The collected data primarily consists of words rather than numbers, emphasizing the underlying process over mere outcomes, and utilizing inductive analysis to uncover the meaning of the observed state of affairs.

The research was conducted in Labuhan Jambu Village, Tarano District, Sumbawa Regency, West Nusa Tenggara. This location was chosen due to its unique status as a developing marine tourism destination featuring the Whale Shark (whale shark) attraction in Saleh Bay. The high involvement of various parties adhering to the Pentahelix model—including the local government, academia, the private sector (UMKM and hospitality), local communities, and media—made the village highly relevant for studying multiparty cooperation patterns in the context of sustainable tourism development. Administratively, the village spans approximately 32,33 km and has a population of 3,680 residents, predominantly fishermen and farmers who are increasingly engaging in tourism roles.

### **Data Collection Techniques**

Data collection followed a systematic procedure to ensure objective findings. The main techniques utilized were:

1. **In-depth Interviews (In-depth Interview):** This method was used to gather verbal, in-depth information about the subjective meaning, perceptions, motivations, and beliefs of informants. Interviews, lasting from 15 to 45 minutes, were conducted directly, utilizing recorders and field notes. Questions were open-ended and deep, allowing informants to freely organize their thoughts. Informants were key individuals selected based on specific criteria: they must be native residents with experience in marine tourism, and possess formal legitimacy or significant influence over the tourism sector, such as village government officials or tourism heads. The composition included representatives from all Pentahelix elements.
2. **Observation:** Systematic observation was performed to directly document the condition of the whale shark tourism site in Labuhan Jambu. The data collected covered interactions with stakeholders, environmental conditions, facilities, and photo documentation. All observations were meticulously recorded in a field notebook.
3. **Documentation:** This technique involved collecting and analyzing various written sources to reveal events, objects, and actions relevant to the research problem. Documents included tourism statistics, policies and regulations related to marine conservation tourism (such as the SK for Komunitas Kawan management and Peraturan Daerah No. 02 Year 2024 on Regional Taxes and Retribution), planning documents, and publications from NGOs (like Yayasan Konservasi Indonesia). The researcher used a tape recorder and a camera as complementary tools.

## Data Analysis and Validation

Data analysis and interpretation were carried out continuously throughout and after the data collection period. The analysis procedure followed the interactive model of Milles & Huberman (2009) comprising three steps:

1. Data Reduction: Data transcripts were summarized, coded (using codes like PWB, HUB, PER, CBT), and clustered to identify key topics, themes, and categories.
2. Data Display: Reduced data was presented in matrices, charts (like the structural diagram of themes and concepts), or narratives to facilitate verification and conclusion drawing.
3. Conclusion Verification: Conclusions were drawn by comparing and reconciling information, a process known as triangulation. Specifically, Source Triangulation was used, involving the comparison of information obtained from one informant against other informants, field facts, and literature studies to strengthen the validity of the findings regarding the cooperation patterns

## RESULTS AND DISCUSSION

### Pentahelix Mapping and Collaboration Pattern

The management of Whale Shark tourism in Labuhan Jambu has transitioned from informal community initiatives to a structured conservation model guided by the Pentahelix model. This section maps the roles and collaboration patterns of the five key stakeholders.

#### Government Role (Government)

The Government, encompassing the BLUD, DISPOPAPAR, DKP, and Village Government, serves as the central Regulator, Coordinator, and Facilitator for destination development. The DISPOPAPAR and BLUD focus on infrastructure development, sustainable promotion, and financial management of tourism revenue. The DKP, in particular, emphasizes the core function of conservation and protection of the whale sharks, conducting scientific monitoring, and empowering local fishermen toward ecotourism. Crucially, the Village Government (Pemdes) actively creates a legal framework by issuing *Perdes* (Village Regulations) covering operational matters like parking and transparent fee collection, thereby providing local legitimacy and a mechanism for involving stakeholders directly in development. The Government also facilitates partnerships with academia for research and provides assistance to the private sector through business legalization and support.

#### Local Community Role (Community) and CBT Implementation

The Local Community, primarily organized into *Komunitas Kawan* (under YKI guidance) and POKDARWIS, functions as the Main Actor and Operator of the CBT model. Their participation level is high, driven by direct economic motivation and awareness of the ecological value. Locals are directly involved as tour guides, boat providers, and *homestay* managers. Critically, *Komunitas Kawan* manages the vital conservation aspects, including monitoring and enforcing the Whale Shark Code of Ethics (e.g., maintaining safe distances and adherence to conservation principles) with technical support from YKI. Local Tour Operators often coordinate with local *bagang* (fishing raft) owners to confirm the whale sharks' presence before trips, illustrating a direct local cooperation mechanism. However, while operational involvement is robust, research noted that community influence remains limited in high-level strategic planning and evaluation, indicating an area where the CBT framework needs strengthening.

### **Private Sector Role (Business)**

The Private Sector includes Tour Operators, Hotel/Villa Owners, and local UMKM (Culinary) who are essential in providing tourism services and facilities. Their role is primarily commercial and facilitative, supporting economic activity and creating local employment. The relationship with the Government is largely administrative, concerning business legalization and facility provision, although some UMKM owners noted paying rent and fees to the village for their operational space. Importantly, relationships between the private sector (excluding local UMKM) and local community groups remain mostly transactional or non-existent; for instance, some hotel owners and tour operators admitted they have no formal cooperation with POKDARWIS or *Komunitas Kawan*.

### **Academic Role (Academic)**

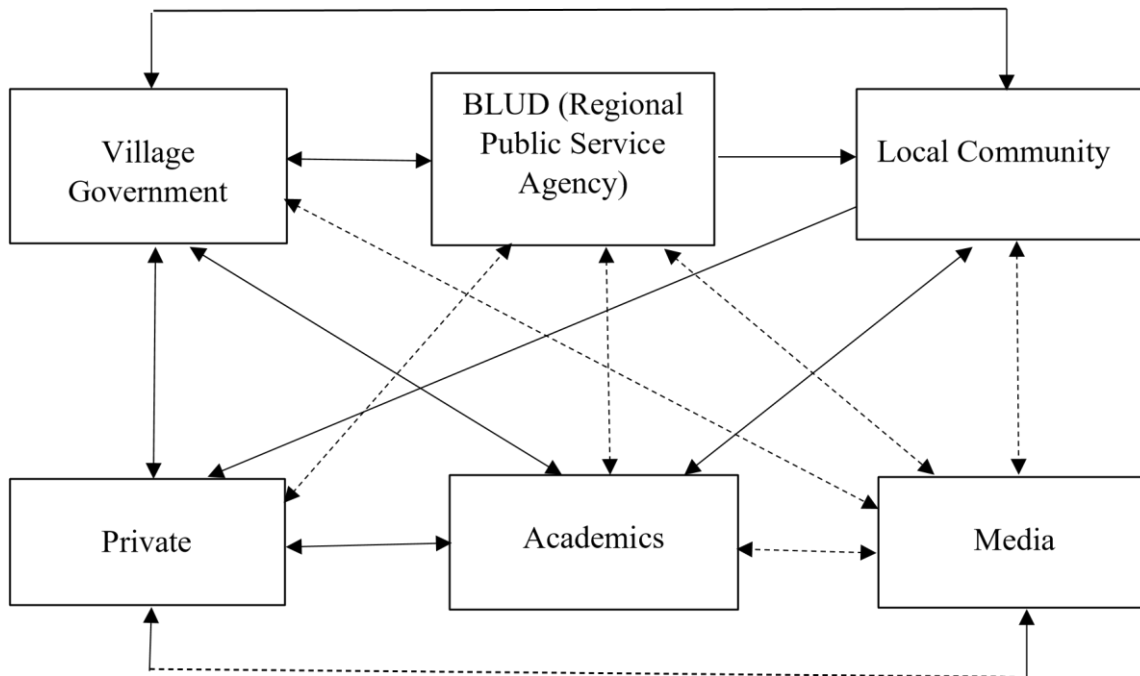
Academia, represented by institutions like Universitas Mataram, is positioned as the Strategic Partner providing scientific support and capacity building. Their contribution is typically manifested through research, KKN (*Kuliah Kerja Nyata / Community Service Program*), and training, which strengthen the technical capacity of local SDM and provide data-based recommendations for policy development. Although the Government acknowledges the utility of academic studies, cooperation remains predominantly informal (e.g., KKN) and often lacks formal binding agreements (MoU) with destination managers. Consequently, the full potential of academic support has yet to be systemically optimized by local stakeholders.

### **Media Role (Media)**

The Media, covering traditional outlets and social media platforms, plays a crucial role in public relations, destination branding, and conservation advocacy. Media involvement is critical for increasing the destination's visibility and attracting domestic and international tourists. However, the media element is the most disconnected and non-synergistic within the *Pentahelix* framework. Peliputan (coverage) is often based on self-initiative without any formal cooperation or MoU with the Village Government or BLUD. This lack of a structured partnership hinders the ability to execute consistent and strategically targeted promotional campaigns for the destination.

### **Synthesis of Collaboration Patterns**

The *Pentahelix* model in Labuhan Jambu is established but characterized by a Collaborative-Participatory Pattern that features strong vertical relationships, particularly the Government-Community axis, driven by conservation necessity. This collaboration ensures that the Whale Shark destination operates under the CBT framework and is sustainable. However, the analysis reveals two key areas of weakness: imbalance of power and role (with the Community having limited strategic input) and a lack of formal horizontal integration (especially among Media, Academia, and the Private Sector). Strengthening institutional capacity at the local level and formalizing these multi-sectoral partnerships are necessary steps to enhance the model's overall effectiveness and long-term sustainability



**Figure 3.**  
**Sociogram of the Actual State of Stakeholder Cooperation Patterns at the Pentahelix-based Whale Shark Tourism Destination in Labuhan Jambu Village**

## CONCLUSION

The cooperation pattern for developing the Whale Shark Ecotourism Destination in Labuhan Jambu Village is a Collaborative-Participatory Pattern operating under the Pentahelix Model and based on the principles of Community-Based Tourism (CBT). The Government is the primary regulator and facilitator, and the Local Community acts as the main implementing actor and conservation operator. Despite this active collaboration, effectiveness is hindered by a power imbalance, where the community has limited strategic input in managerial decisions, and a pervasive lack of formal integration (MoU) among most stakeholders.

Therefore, it is strongly suggested that the Government (BLUD/DISPOPAN) formalize the Pentahelix collaboration through binding agreements and establish a multi-stakeholder forum for strategic planning. This must include immediate steps to strengthen the institutional capacity and bargaining power of local community organizations (POKDARWIS/Komunitas Kawan), ensuring they transition from mere implementers to equal decision-makers for sustainable and equitable destination management.

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