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## PENTAHELIX MODEL FOR THE DEVELOPMENT OF ECOTOURISM KARANG GINGER BEACH PUNJULHARJO VILLAGE, REMBANG REGENCY

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### ABSTRACT

The village autonomy program is needed to spur an increase in the income of the community, village and government. Law No. 6 of 2014 concerning empowering village communities. The potential of tourist villages in Rembang Regency underlies one of the government policies that focus on tourism development. Punjulharjo Village is one of the villages that have the Karang Jahe Beach (KJB) tourism object. In the course of developing KJB, there are still work programs that have not been optimal. One reason is the absence of integration and synergy between the various elements involved in the development of Karang Jahe Beach tourism. The purpose of this research is to create a Pentahelix synergy model that can effectively develop KJB ecotourism, Punjulharjo, Rembang Regency. The research method used descriptive by means of interviews, observations, surveys using in-depth interviews and Focus Group Discussion (FGD). Pentahelix consists of the Government, namely the Office of Tourism Culture, Environment, Empowerment of Village Communities, Industry, Trade, Cooperatives and MSMEs. Academics namely Semarang State Polytechnic and STIE Human Potential Development Foundation (YPPI). Businesses are Tour and travel bureaus (Tiara), Homestays, SMEs. The community is the Rembang Mbak Mas Association (IMMR). The media is Mataair radio. The Pentahelix components synergize and integrate in area development, improving infrastructure facilities, creating tour package programs and optimizing Karang Jahe Beach (KJB) ecotourism promotion activities.

**KEYWORDS:** Pentahelix, Ecotourism, Focus Group Discussion, Community.

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### 1. INTRODUCTION

Article 1 paragraph 12 of Law Number 6 of 2014 empowering rural communities. The law triggers the existence of village autonomy as an effort to increase the economic income of the community, village and government. This development is needed through various improvements in knowledge sharing, attitudes, behavior, and work skills to trigger the potential for developing work innovation

(Nugroho, B.S., 2021). The development must be adjusted to the needs of the community. Punjulharjo Village is one of the villages in Rembang Regency. Livelihoods in the village of Punjulharjo as pond farmers, and fishermen. The flagship tourism in Punjulharjo Village is Karang Jahe Beach (KJB) which is located on the eastern coast of the city of Rembang. According to Rembang Regent, Bp. Abdul Hafidz, KJB once held the achievement with the 7th highest number of tourist visits for the Central Java area.

In tourism development, it is identical with the concept of sustainable tourism development. The indicators are tourist interest and direct involvement of local communities through the concept of long-term protection and management. Ecotourism development has an indicator of the extent to which it is able to benefit the surrounding community, is able to provide satisfaction to tourist visitors, and while maintaining the security aspect (safe and comfortable) in traveling (Fandeli, 1999).

Punjulharjo Village has an attraction to increase the income of the village community. The government is involved in improving infrastructure, including access roads and other supporting facilities. There was an increase in the number of visitors in the second year since the opening, which was 27.79% with a total of 895,299 tourists. But it continued to experience a decrease in the number of visitors in the third year by 10% (806,097) people, and the fourth year 2019 to 803,522 people. Based on this phenomenon, it is necessary to develop an effective strategy.

The results of Suroija's research (2020) show that the most potential tourism to be developed is Karang Jahe Beach (KJB) by highlighting natural beauty, unique traditions and games and activities. This provides an opportunity for the development of KJB into ecotourism, but this is not easy. Collaboration between various government and village institutions is needed as a key in developing ecotourism strategies. One of the strategies to achieve success in developing national tourism lies in the synergy of elements of Pentahelix (Government, Academics, Associations, Communities, and Media) (Arief Yahya, 2016).

Based on initial observations, the development of Karang Jahe Beach (KJB) tourism is still focused on optimizing its potential and has not yet involved the pentahelix component.

Yunas' research (2019) describes the Village Economic Barn Model as an implementation of the pentahelix model, so that in this Village Economic Barn all components work together. Yuniningsih's research (2019) found the role of the Pentahelix component in tourism development in the city of Semarang. Pentahelix can also be applied to post-disaster tourism recovery as carried out by Rizkiyah (2019) with a tourism activity program in the form of tourism-related events in Karo Regency involving pentahelix components.

Of course there will be various differences in the strategy for developing and implementing the Pentahelix model in its implementation. This cannot be separated from the characteristics and obstacles that are different in each region. By taking into account the gaps and findings of various previous studies, this research will elaborate on various previous studies using the Pentahelix model as a strategy for developing Karang Jahe Beach (KJB) ecotourism. So that the most appropriate

strategy ingredients will be found in ecotourism development through developing collaborations and increasing the synergy of all Pentahelix components.

## **2. RESEARCH PROBLEMS**

Karang Jahe Beach (KJB) has the potential to be developed into ecotourism. But experienced various obstacles in its implementation. The main problems are related to environmental management, infrastructure facilities, promotional media, information media and cooperation between village institutions or the government. The lack of communication between institutions is a problem that must be fixed immediately. The absence of a strategic plan for the development of integrated tourism areas is the reason why ecotourism development has not been maximized. The existence of Tourism Awareness Groups (Pokdarwis) has proven to have a significant influence on people's income. Not enough of that, there needs to be good collaboration and synergy between the various components. Based on these research problems, it is necessary to have a collaborative and partnership approach that involves various parties. So it is necessary to do research on how the pentahelix model can become a strategy in the development of Karang Jahe Beach ecotourism.

## **3. LITERATURE REVIEW**

### **Ecotourism**

The International Ecotourism Society (2002), to support the above concept defines that ecotourism is a form of responsible travel to natural areas that is carried out with the aim of conserving the environment and preserving the life and welfare of the local population. This aspect of responsibility and sustainability is emphasized again by other experts (Damanik, J. and Weber, H.F., 2006), by placing ecotourism as a nature-based tourism activity, is sustainable, managed specifically, has a positive impact on the environment, is locally oriented, does not is consumptive, and focuses on experience and education about nature.

Ecotourism is a concept of sustainable tourism development that aims to support efforts to preserve the environment (nature and culture) and increase community participation in conservative management, thereby providing economic benefits to the local community (Directorate General of Tourism, 1995).

### **a. Ecotourism Principles**

According to Page and Ross (2002), ecotourism consists of three main principles, namely; conservation principles, community participation principles and economic principles.

1. Principles of Conservation. The principle of conservation means having concern, responsibility and commitment to preserving the natural and cultural environment, implementing responsible business principles and a sustainable economy. The principle of nature conservation has concern, responsibility and commitment to nature conservation and development that follows ecological principles, while the principle of cultural conservation is sensitivity and respect for socio-cultural values and religious traditions of the local community.
2. The Principle of Community Participation. Ecotourism planning and development must optimally involve the local community.
3. Economic Principles. Ecotourism development is carried out efficiently, in which natural resources are regulated so that their sustainable use can support future generations.

### **b. Types of Ecotourism**

According to Yoeti (1997), based on the objects that are the main elements of tourism travel, ecotourism is divided into two types, namely:

1. Nature ecotourism. Its characteristics are that which can be seen or witnessed freely, such as natural scenery, flora, fauna and forest vegetation.
2. Cultural ecotourism. The results of a nation's culture that can be seen, witnessed and studied, such as historical monuments, cultural places and traditional celebrations.

### **Pentahelix**

Sustainable tourism development in Indonesia can never run alone, there is a need for cooperation in tourism development. The development of human resources, natural resources, infrastructure, social and culture needs to be developed between the parties related to tourism development.

The Pentahelix concept is one of the offers from the Ministry of Tourism related to tourism development in Indonesia. It is stated in the Minister of Tourism Regulation (Permen) of the Republic of Indonesia No. 14 of 2016 concerning Guidelines for Sustainable Tourism Destinations. The goal is to ensure and quality activities, facilities, services and create experiences and value tourism benefits. The Pentahelix Concept in Tourism (Verry Yudha, 2019) the parties referred to in the Pentahelix Concept are:

1. Business is all interested parties or business actors working together to develop business through tourism. One example, tour and travel, PHRI (Indonesian Hotel and Restaurant Association).
2. Government of stakeholders, Central Government, Provincial Government, Regency/City Region, Tourism Office, District, and Village Government and the community as the spearhead.
3. The community is a third party or private sector that has the goal of developing Indonesian tourism.
4. Academics, as tourism development consultants. Coming from a university, he is considered to know the theory and ideal concepts of tourism development. And as a manifestation of the dedication of a university academic, it is beneficial for the surrounding community, especially the village.
5. Media is one of the important stakeholders, because tourism development must be published as news and disseminated via online or offline media. This will have a positive impact on the community if it cooperates with the mass media as a publication of tourism activities.

## **4. METHODS**

The research method used in this research is descriptive research with a qualitative approach. Primary data was collected through observation, interviews (in depth interviews), and focus group discussions (FGD). The research respondents involved are related parties who can proportionally represent all stakeholders who have their respective roles and responsibilities in the development of ecotourism in Punjul Harjo Village, Karang Jahe Beach (KJB). Observations were made through discussion and observation in the research area. The FGD was conducted to hear the existing problems, and try to agree on solutions that can be done through collaboration and synergy of all components as an ingredient in determining the pentahelix model in the development of KJB ecotourism. Secondary data was obtained from profile data of Karang Jahe Beach, work program, resources involved, and other required data.

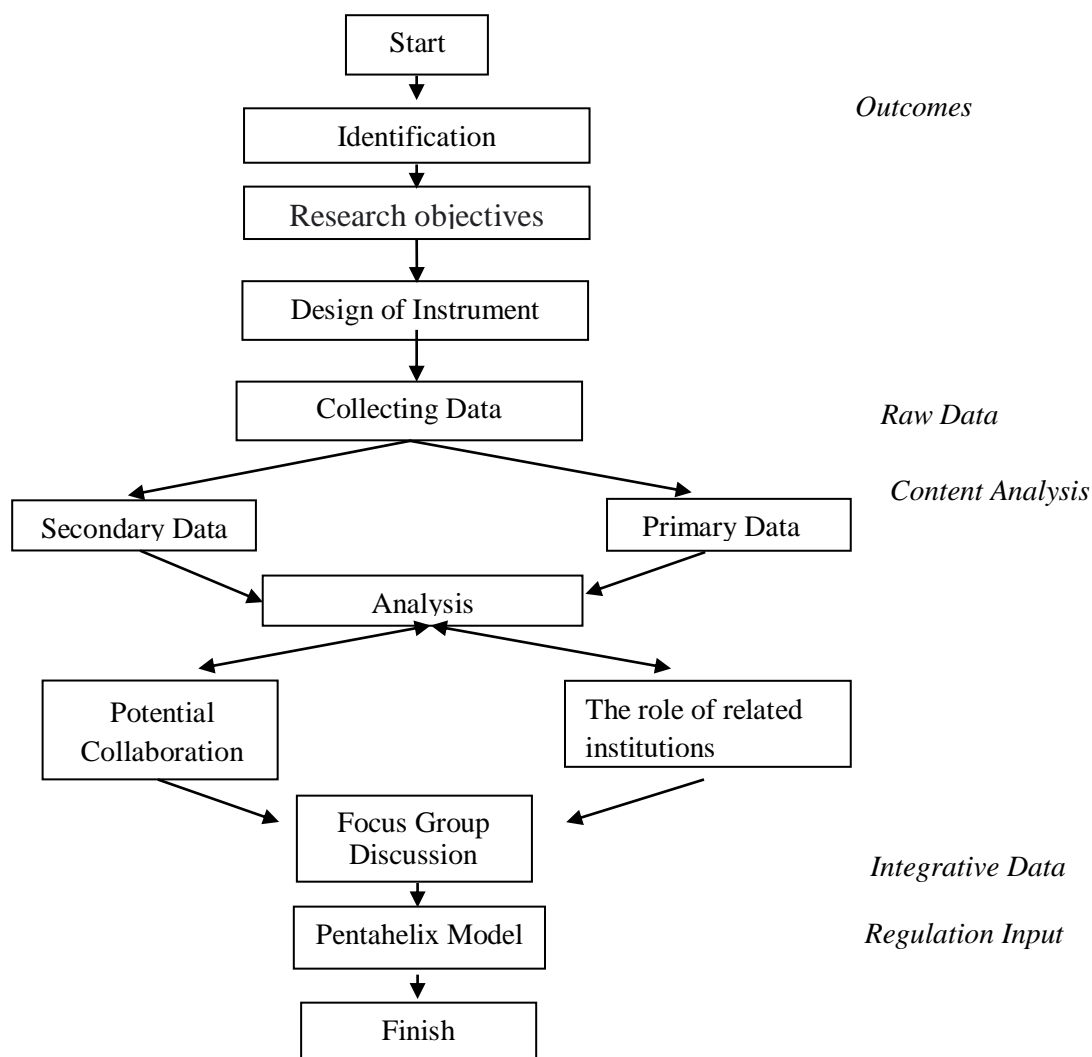
The population of this study is representative of the pentahelix component, namely Academics, Business, Community, Government and Media related to the development of Karang Jahe Beach (KJB) ecotourism. The number of samples required as primary research data is at least 30 respondents using purposive convenience random sampling technique. The research sample is SMEs (business owners) and traders with a total of 10 people, and expert stakeholder groups of 20 people consisting of Pokdarwis (managers of KJB), BUMDes, Chairman of the association (community), Head of Tourism Office, Department of Industry-Trade and SMEs, Marine Service and fisheries, Department of the Environment. Identifying the program and management of Karang Jahe Beach (KJB) in Punjulharjo village and the role of institutions in related villages in ecotourism development using in-depth interview data collection techniques.

The data obtained will be processed using content analysis techniques (content analysis). Content analysis was conducted to group the data into categories based on the similarities and differences in the meaning contained in each data. Content analysis in this study will result in a categorization of the role of each component.

In this study the stages of research carried out were:

1. Data preparation,
2. Identify information from various parties that are relevant to research. The data is the role of each component in pentahelix covering aspects of Potential Data Collection, Organization, Legalization, Communication, Socialization, Cooperation, Management, Development Programs, Commitment, then categorizing based on themes that often emerge from the data.
3. Categorizing data based on the themes that appear in it
4. The results of this data categorization then become the themes that are formulated with the existing theory. Data were obtained from competent key-persons on ecotourism development issues representing each component, namely Academics (Semarang State Polytechnic, STIE YPPI, PSDKU, Islamic College), Business (investors, travel and tourism agents, other business actors), Community ( art, culture, specialization), Government (Related agencies, namely the Office of Tourism, Industry and Trade and the Office of Maritime Affairs and Fisheries, the Forestry and Environment Service, the Office of Cooperatives and MSMEs including village governments such as BUMDes, Pokdarwis, etc.) and Media (Radio, Letters News)
5. Select relevant data to describe each theme.

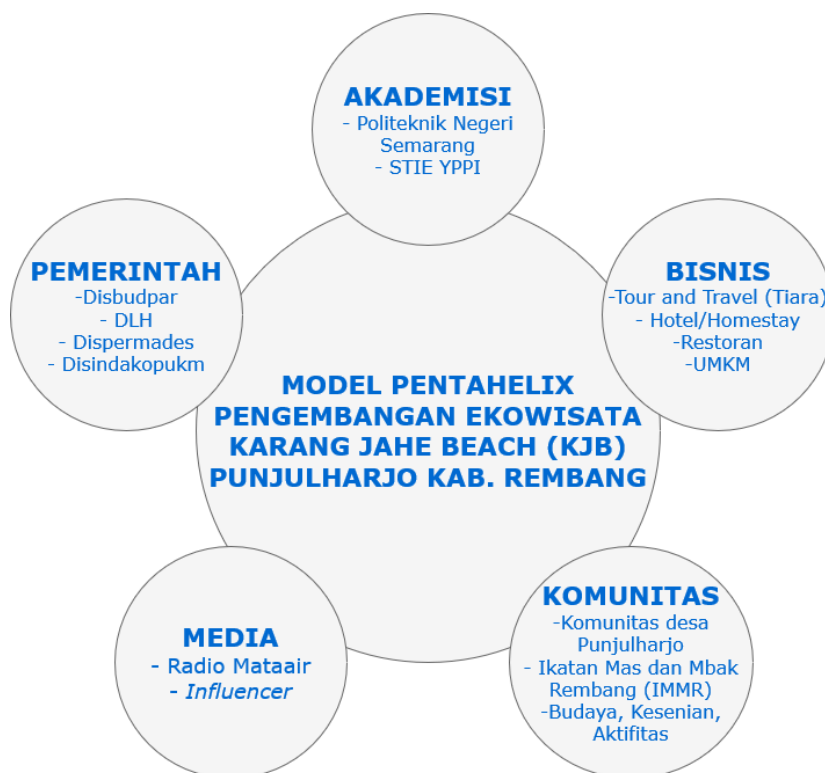
To answer the research objectives, it was carried out by finding the pentahelix model for ecotourism development using a Focus Group Discussion (FGD) with all the components involved based on the results of content analysis.



**Figure 1.** Research Model

## 5. RESULTS AND DISCUSSION

Punjulharjo Village has a Karang Jahe Beach (KJB) tourist attraction with coral reefs that need to be preserved, and there is an ancient boat site. Based on data for 2017, the visitor graph is always increasing and will experience a significant increase during Eid and the holiday season. There was a decrease in visitors during the pandemic and PPKM, due to a policy that only allows a maximum of 30% of normal days (3,800 visitors). Tourists come from various regions. Among them are Rembang, Blora, Pati, Kudus, Demak, Semarang, Purwodadi, Bojonegoro, Solo, Jogjakarta and Tuban. KJB managers are villagers who have a commitment to development so as to contribute to increasing income for the village to become Village Original Income (PADES) which goes to BUMDES. KJB managers have sufficient quantity and quality because they periodically conduct training according to the needs of each field, especially for personnel related to service to visitors. KJB has collaborated with EO/travel agents and buses (Mekar Sari) which have tour packages, communities that have made events to Karang Jahe Beach and Karang Taruna. The Karang Jahe Tourism Pentahelix Model is depicted in Figure 2.



**Figure 2.** The Pentahelix Model for Ecotourism Development in Karang Jahe Beach (KJB) Punjulharjo Regency, Rembang

The work program is carried out with various strategies, namely short term, medium term, and long term. The short term that needs to be addressed are routine and vital facilities such as lighting/speaker lamps and cleaning facilities. The medium term is a program to improve facilities such as improving the fence. And for the long term, it is a program that provides long-term benefits but requires large costs, such as the problem of Icon Karang Jahe Beach.

**Table 1.** Development Strategy for Karang Jahe Beach Tourism

Strategic	Program
Structuring the area and developing tourist facilities	a. Provision of places to sell (BUMDES Mart) b. Creation of new Spots c. Waste management and utilization d. Making boards of rules and recommendations to protect the tourist environment
Creating a tourism object program by optimizing the carrying capacity of a large area and creating events with special characteristics, namely the culture of customs and unique community culture in Punjulharjo Village	a. Make events regularly b. Creating integrated tour packages

Management of ecotourism with the concept of integrative tourism in creating promotional content for marketing products and tour package products.

- a. Short video making
- b. Promotional digitization (Social Media), integrated digital marketing

#### 1. Structuring the area and developing tourist facilities.

The tourist area consists of infrastructure facilities. The infrastructure facilities that need to be developed include children's play areas, business places, photo spots, sanitation areas, lodging, vehicle parking, and places of worship, trash bins and other required facilities. The existence of a regional arrangement strategy aims to make tourists safer and more comfortable in enjoying the various tourist attractions of Karang Jahe Beach. Regional planning and facility development programs are in the form of:

##### a) BUMDES Mart

BUMDES Mart is a shop that sells various MSME products in Punjulharjo village and its surroundings. Tourists who visit can buy souvenirs typical of Punjulharjo and the city of Rembang at this BUMDES Mart. The location is near the gate of Karang Jahe beach.

- b) Making photo spots from various new locations on Karang Jahe Beach. The presence of this new location is expected to increase tourist attraction. This is in accordance with the wishes of tourists who always want to capture the experience by taking pictures at tourist sites and posting them on social media. This will be a new way of media promotion through integrated digital marketing (Nugroho et al., 2022a).
- c) Management and utilization of waste around the coast. This program has actually been running, and there are equipment facilities provided by the Environment Agency, but their implementation is still not optimal.
- d) Creation of rule boards and recommendations. This is intended as a guide for tourists when looking for a destination. In addition, as an educational medium about what can and should not be done in the KJB tourist area. So this will trigger tourists to participate and be responsible for maintaining and preserving ecotourism.

The participation of Pentahelix in the activities of structuring the area and developing tourism facilities is as follows:

- a) The government, including the village government, provides support and policies as well as funding through funds from BUMDES. The government through related agencies, namely the Village Community Empowerment Service (Dinpermades), the Environment Service, the Cooperative Trade and MSME Industry Office (Dinindakopukm) provides assistance and guidance in terms of store management and training for MSMEs. The Tourism Culture Office has a role in providing direction and guidance regarding the development of facilities and infrastructure to increase the selling value of tourism. The Environmental Service (DLH) provides assistance, training and supervision of waste management and utilization.
- b) Academics play a role in providing management training for shop managers and SMEs, evaluation studies regarding the effectiveness and efficiency of BUMDES Mart management.



- c) Businesses in this case are MSMEs which are suppliers of products sold at BUMDES Marts by paying attention to the quality of products and services. This needs guidance from both Diindagkopukm and academics.
- d) Communities and communities play a role in promoting this program and become drivers of ecotourism.
- e) The media plays an important role as a communicator about the Karang Jahe Beach (KJB) ecotourism program.

2. Creating a tourism object program by optimizing the carrying capacity of a large area and creating events with special characteristics, namely cultural customs and unique community culture in Punjulharjo Village.

- a. Make events regularly, such as the Karangjahe Beach Celebration. The Karangjahe Beach celebration is a combination of various existing and unique activities or performances in the village of Punjulharjo, such as dance performances, tong-tong klek, hadroh, kite competitions, MSME product exhibitions and so on.
- b. Making integrated tour packages in Punjulharjo village and with other tours in Rembang district. Punjulharjo Village has other tourist attractions besides Karang Jahe Beach, namely the site of an ancient boat and an ancient house. This can be used as an integrated tour package, so that this object is also visited by tourists. Integration with surrounding tourism objects also needs to be done considering that the city of Rembang has a historical heritage tourism object known as China Kecil in the form of a housing complex with Chinese architecture (Chinatown) a center for Lasem's typical hand-written batik, mangrove tourism and others.

Pentahelix's participation in the creation of this tourism object program is as follows:

- a) The government through Dinbudpar collaborated between Dinpermades, Dindarkopukm, and Punjulharjo village so that there was synergy and integration that supported the implementation of this program. The village government prepares policies and budgets for the implementation of this program. Pokdarwis and tourism managers play the role of driving and implementing the program with the support of other village institutions
- b) Academics, through community service activities assist in designing integrated tour packages and supporting training
- c) Business, KJB managers display performance in managing quality tourism, travel agencies, hotels, homestays synergize and help promote and provide the best service to tourists.
- d) The community, in this case the Mbak, Mas Rembang Association (IMMR), plays a role in designing events in synergy with Pokdarwis and promoting them offline in various events that they participate in as well as online on various social media. The community in Punjulharjo village and the community are the actors and implementers of this program.
- e) The media, Radio Mataair, helps promote tourism and synergizes with other media for tourism promotion in Rembang.

3. Management of ecotourism with the concept of integrative tourism in creating promotional content for marketing products and tour package products.

- a) Creating promotional media in the form of short videos containing the village profile of Punjulharjo and the activities and tourist attractions of Karang Jahe Beach. This promotional

video features various tours not only at Karang Jahe Beach but all tourist objects that can be integrated together (collaboration).

- b) Integrated Digital Marketing through social media promotions using digital media and the internet, namely Instagram, whatsapp, youtube, tiktok, facebook and the web.

Pentahelix's participation in the ecotourism management program with this integrative tourism concept is as follows:

- a) The government, namely Disbudpar plays a role in mentoring, mentoring and licensing in making videos. The video content involves many parties and tours around the area. The Village Government is the driving force for other village institutions and the community to participate and support this program.
- b) Academics, Semarang State Polytechnic and STIE YPPI Rembang have a role in providing training on optimizing social media and digitizing marketing and promotions for tour operators, Pokdarwis and MSME owners.
- c) Businesses in this case are MSMEs in Punjulharjo village which support what to buy activities in tourism. Their role is to make products with a decent appearance to be promoted in digital media. Other businesses such as tour and travel, hotels play a role in exposing videos and promotions
- d) The IMMR community, as well as dance communism, culture in Punjulharjo village plays a role in designing content and distributing or exposing videos and promotions in various media. The community participates in disseminating and promoting Punjulharjo tourism.
- e) Media Radio plays the role of exposing, disseminating and synergizing with other media to promote tourism

Karang Jahe tourism managers need to have the same perception in terms of ecotourism development. Synergy needs to be increased between stakeholder elements in the development of Karang Jahe tourism including the Government, Academics, Business, Community and Media (Pentahelix)

The first Pentahelix is Government. The government has a vital role in determining policies to comply with existing regulations and policies. Roles as policy makers include the Tourism Culture Office (Disbudpar), the Environment Service, the Village Community Empowerment Service (Dinpermades), the Cooperative Trade Industry and MSME Office. There needs to be regular meetings that can accommodate problems and the Karang Jahe Beach ecotourism work program. Due to limited infrastructure and technical capabilities, the role of Academics (as the second Pentahelix) is needed to be involved in ecotourism development. These roles include higher education tri dharma activities, namely research activities in ecotourism development, community service activities through various training and infrastructure grants according to ecotourism needs, as well as education and student involvement especially around Rembang to participate and contribute to innovation in improving tourism quality. Karang Jahe Beach. Sharing knowledge with good cooperation will trigger innovation at work (Nugroho, 2021). Several academics who have contributed to Karang Jahe Beach ecotourism include Politeknik Negeri Semarang and STIE The Human Potential Development Foundation (YPPI). This needs to be maintained and developed in the following years.

The third Pentahelix is Business including Tour and travel Bureau (Tiara), Hotels, Homestays, MSMEs, and other businesses. Of course, business here is something that will contribute directly to improving the community's economy. So that a synergy is needed. Solid cooperation between business elements is needed to attract Karang Jahe beach tourism.

The fourth Pentahelix is Community, including the community in the village of Punjulharjo and the Association of Mbak Mas Rembang (IMMR). The role of the community as a figure from the surrounding community is also very much needed as a human resource asset. The community plays a very important role in terms of promoting ecotourism, service activities in providing training, infrastructure and so on. The community is also a public figure in the spearhead of ecotourism promotion through various existing activities.

The fifth and last Pentahelix is Media, one of which has participated in the development of Karangjahe Beach ecotourism is Mataair radio. Of course, the presence of the media is also very necessary in the development of ecotourism. In the future it needs to be increased through other electronic media such as television, social media, or the role of influencers as a medium for promoting ecotourism development. The role of social media through integrated digital marketing is indispensable in development and promotional activities (Nugroho et al., 2022).

The development strategy focuses on 3 things, namely (1) Development of areas, infrastructure and facilities, (2) Development of tourist attractions with tour package programs according to village potential and (3) Development of digitalization promotions. The implementation of this strategy involves the 5 Pentahelix components based on their respective roles and integrated and coordinated initiatives by tourism managers and other Pentahelix components.

## **6. FINDINGS AND LIMITATIONS**

This study focuses on the development of ecotourism at Karang Jahe Beach using the Pentahelix Analysis approach (Government, Academic, Business, Community, and Media). The potential for tourism villages in Rembang is the key to increasing the income of the community, region and government. So it should always be maintained and prioritized in the preservation and development of tourism. Various activities that exist around the coast, there is a potential for environmental damage, so there is a need for special regulations to maintain environmental conservation.

Tourism managers and existing Pentahelix components need to continue to maintain good social relations through communication, coordination and involvement of all Pentahelix components that have a commitment to tourism development. Suggestions to all Pentahelix components are to maximize their respective roles and always collaborate to implement the programs that have been designed. This research has not touched directly on the roles and responsibilities of business people around tourism objects. Suggestions for future research are business analysis canvas models to support the sustainability of the Karang Jahe Beach ecotourism development program.

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