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Pentahelix model in agrotourism area development in Karo Regency

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ABSTRACT

This research aims to expand the triple helix strategy by involving various elements of society and non-profit institutions in order to realize innovation in the Development of Agrotourism Areas in Karo Regency. The Penta helix model in the development of agrotourism in Karo Regency are academics, society, government, media and business. The method of determining the sample was determined purposively (deliberately) in the agrotourism area in Karo Regency, North Sumatera Province. This sampling method using purposive sampling is a technique that is not based on random, regional or start but based on considerations that focus on certain goals. This study uses a qualitative approach, which means that research with its findings is not obtained from statistical procedures or forms of calculation that emphasize the essence of the phenomenon under study. The result of this study indicate that there are five institutions that play a role in the development of agrotourism in Karo Regency, namely: (1) Academics are University North Sumatera (USU), Indonesian Methodist University (UMI), Medan Area University (UMA), UMSU; (2) The community is a tourism-aware group; (3) The government is the village government, the agriculture office the tourism office; (4) Media, namely print media and online media; and (5) Banking (BRI, BNI).



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Introduction

The tourism development program is related to how the roles of stakeholders carry out their main tasks and functions. The government's role in developing tourism is to conduct training to form quality human resources and provide infrastructure in physical form in expanding various forms of facilities, and coordinating activities between government officials and the local tourism community. The role of the community is needed in developing tourism in an area. These community business activities can create a place of livelihood that will encourage the community to take part in preserving the environment (Saputri et al., 2020). The tourism potential is based on the socio-cultural peculiarities of the community, geographical conditions, and potential natural beauty in the development of the tourism sector (Ismayanti, 2017). The development of the tourism industry is increasingly rapid, and the competition between conventional tourism and alternative tourism is getting tighter so that the development and development of tourism and the tourism industry become very exploitative of human resources, especially local communities and natural resources (Sianturi, 2021). Agrotourism is a translation of English, Agrotourism. Agro means agriculture and tourism means tourism.

Agrotourism is a trip to an area whose target is agriculture (fishing, plantation, forestry, etc.). Agriculture includes various aspects of agriculture, including natural scenery, agricultural activities, diversity in agricultural production, agricultural technology, and customs in the agricultural sector prevailing in a region (Simatupang et al., 2022). Agro-tourism is a series of tourism activities that utilize the potential of agriculture as a tourist attraction, both in the form of landscape potential in agricultural areas as well as the diversity of production activities, agricultural technology, and other community cultures. Agrotourism development is a universal concept that can be pursued through diversification and quality improvement according to consumer needs and the global market (Lestari et al., 2022). The agro-tourism development approach should be based on needs (Rahayu et al., 2016).

The development of the concept of synergy in tourism development began with the idea of a triple helix that emphasizes the relationship between universities, industry, and government which was adopted from the theory of (Etzkowitz & Leydesdorff, 2000). According to Imas (2016) stated that the Penta helix model is a reference in developing synergy between agencies to achieve goals. Halibas et al. (2017) stated that the role of Penta helix collaboration has the goal of innovation and contributing to regional socio-economic progress. Penta helix is a strategic expansion that involves various elements of society or non-profit institutions in realizing innovations that are supported by various resources that interact synergistically. The actor responsible for creating innovation is the industrial sector while the actor responsible for creating knowledge is the University and both interact with a third element, namely the Government (Utami & Novikarumsari, 2022). The results of Setiawati & Aji (2020) research show that excellent service is needed in tourist villages, because tourist villages have special characteristics that can be used as tourism, namely the culture and natural beauty of the village. The form of excellent service in the form of attitudes, attention and actions taken in tourism activities in the Important Sari tourist village must contain elements of Safe, Orderly, Clean, Cool, Beautiful, Friendly and Memories for tourists carried out by tourism business actors, among homestay owners, restaurants and centers souvenirs. So the problem in this research is to develop an agrotourism area in Karo district because Karo district has tourist objects related to nature tourism and agro-tourism and horticultural production centers in North Sumatra, especially vegetables and fruits which require expansion of the pentahelix strategy which in the future will involve elements of the community Karo district to further develop the area in order to create new innovations.

Ministerial Decree Number 204/KPTS/HK.050/4/1989; KM.47/PW.004/MPPT-89, that the development of agro-tourism is essentially an effort to exploit the potential of agricultural tourism attractions. Based on the Joint Decree (SK) between the Minister of Tourism, Post and Telecommunications and the Minister of Agriculture No. KM.47/PW.DOW/MPPT 89 and No.204/KPTS/HK/050/4/1989 agro-tourism as part of a tourist attraction, is defined as a form of activity that utilizes agro-business as a tourist attraction to expand knowledge, experience recreation, and business relations in agriculture. Agro-tourism is defined as tourism that utilizes agricultural objects (Wahyudi & Yahya, 2021). Karo Regency is a tourist attraction related to nature tourism and agro-tourism (Tondang, 2021). Karo Regency is a center for horticulture production in North Sumatra, especially vegetables and fruits (Sinuhaji et al., 2019). Collaboration is needed in the context of joint involvement in developing agro-tourism objects as much as possible (Syafari, 2018). The Penta helix model was launched by the Minister of Tourism Arif Yahya Which is a collaboration of five elements of tourism subjects or stakeholders, namely: Academician, Business, Community, Government, and Media (ABCGM). This Penta helix model involves elements: Academics, Business, Government (Government), Community (Community), and Mass Media (Yuningsih et al., 2019). This research aims to expand the triple helix strategy by involving various elements of society and non-profit institutions in order to realize innovation in the Development of Agrotourism Areas in Karo Regency.

Method

This research uses a qualitative approach, meaning that the research findings are not obtained from statistical procedures or forms of calculation that emphasize the essence of the phenomenon under study. The method of determining the sample was determined purposively (intentionally) in the agro-tourism area in Karo Regency, North Sumatra Province. This sampling method uses purposive sampling, which is a technique that is not based on random, regional or starting but based on considerations that focus on certain goals. The research was conducted in Karo Regency. The rationale for choosing a place is (1) a strategic area for agro-tourism development because Karo Regency is characterized by mountains and also has the beauty of looking at Lake Toba (2) the mainstay of regional economic development because Karo Regency is a producer of vegetables and fruit. Agricultural products are sent to neighboring provinces such as NAD, Riau, and Java and are also exported to Singapore. This study uses a qualitative research approach. For interviews need to prepare clear guidelines in asking questions. The first step, questions can be in the form of personal information related to

the interviewees. The next step, the questions asked can be in the form of discussions from general questions related to the focus of the discussion to specific questions that are more towards the research focus.

The researcher makes a complex picture, examines words, reports detailed views of the informants, and conducts studies in natural situations. Qualitative data collection methods in this study were obtained from (1) in-depth interviews with group leaders and members of agro-tourism in Karo Regency to obtain in-depth information about the subjective meaning of thoughts, feelings, behaviors, attitudes, and beliefs, perceptions, intentions, behavior, motivation, and personality of participants about an object of research phenomena, (2) qualitative observations at research locations with observations made by researchers in scientific settings to explore or explore the meaning of phenomena that exist within participants, (3) available documentation in the form of a textbook on the profile of agro-tourism in Karo Regency and (4) Focus Group Discussion (FGD) which was conducted to discover how the role of Poktan and Pokdarwis through stakeholder support in the Penta helix perspective (industry, universities, government, community, and media) in developing agro-tourism in Karo Regency. The data obtained were then analyzed using the interactive model of Miles et al. (2014) including data condensation, data presentation, and drawing conclusions.

Results and Discussions

The role of academics, business, government, community, and media in the Penta helix perspective of the Poktan and Pokdarwis empowerment models in Raya Village, Berastagi District, Karo Regency. The role of Penta Helix in agro-tourism in Karo Regency. Support from stakeholders such as the government, the private sector, academia, local communities (pokdarwis), and the media in the agro-tourism area of Karo Regency. The role of the Penta Helix can be seen in Table 1.

Table 1. The Role of the Penta Helix

| No. | Institution name | Empowerment Effort |
|-----|--|--|
| 1. | Academics | Carry out fieldwork practices and research in the agro-tourism area of Karo Regency to develop village progress and agro-tourism |
| 2. | Community: tourism awareness group | Flower cultivation (agro-tourism of a thousand flowers garden), fruit cultivation (agro-tourism of self-picked oranges, strawberries, and dates), Simalem park agro-tourism, coffee agro-tourism |
| 3. | Government: village government, agriculture office, tourism office | Assistance, training, and assisting in agro-tourism development |
| 4. | Media: Print Media and Online Media | Promoting agro-tourism activities in Karo Regency |
| 5. | Private | Giving provides support through CSR programs, both providing seeds, equipment, and training |

Source: Field Data, 2021

The support of stakeholders such as the government, the private sector, academia, local communities (pokdarwis), and the media in the agro-tourism area of Lake Toba is explained as follows:

Government

Agro-tourism management requires government support, especially the village government for facilities and infrastructure. The role of the government, especially the village government, is to facilitate cooperation with related parties for the development of agro-tourism. The government acts as a regulator as well as acts as a controller who has regulations and responsibilities in developing agro-tourism businesses. Activities planning, implementation, monitoring, control, promotion, financial allocation, licensing, programs, legislation, development, and knowledge, public innovation policy, support for innovation networks, and public-private partnerships. Village government support is in the form of village fund budget allocations to develop agrotourism supporting facilities and infrastructure. The government also has a role in coordinating the stakeholders who contribute to the development of agro-tourism and government prepares policies and legal umbrellas for agro-tourism development in Karo Regency. The results of the observation that the village government has so far been assessed to facilitate the information needed related to agro-tourism management so that farmers can easily access information needs. The government facilitates cooperation with tourism actors outside the local Gapoktan. The government encourages agro-tourism management farmers to take part in a training held by the Ministry of Tourism together with the Karo Regency Government. The government has added supporting facilities for agro-tourism such as places of worship, additional parking areas, improved access roads, and additional signage.

Private Sector

The private sector can act as an enabler to deliver technology and capital infrastructure. The private sector is an entity that carries out business processes in creating added value and maintaining sustainable growth. Changes to the digital era can help develop the village's potential to be more effective, efficient, and productive. The results of interviews and field observations that the private sector plays a more important role in the home-made industrial sector for processing agricultural products, therefore the industry acts as an implementer of agro-tourism and as a user who utilizes this type of tourism to be marketed.

Academics

Academics act as drafters, such as identifying potential and certifying products and human resource skills that support increasing the potential of the village. Academics are a source of knowledge with the latest and relevant concepts, and theories. The results of the observations of several academics researching agro-tourism development strategies in the Lake Toba area, examining factors that influence tourist visits, the added value of agricultural products in agro-tourism areas, and planning agro-tourism by involving village-owned enterprises (BumDes) Akedimisi are expected to prepare related studies to support the development of agro-tourism in Karo Regency.

Local Community

The community acts as an accelerator, namely business actors who are engaged directly/indirectly in the agro-tourism industry. The community also has a role to promote products or services owned by the community and monitor the impact of tourism on the culture and social community. Communities and communities become agro-tourism organizers who participate in facilitating travel/tourism activities. The results of the observation that agro-tourism farmers cooperate with the community to manage the parking area of visitors' vehicles in the agro-tourism area, coordinate with other farmers to determine planting time, and information on harvesting commodities at the agro-tourism location, together with the community to maintain environmental comfort.

Media

The media must be able to act as an expander. The media plays a role in supporting publications in the promotion and creating brand images to improve the image of agro-tourism. The results of research and observations (Yunas, 2019). Advancing agro-tourism in Karo Regency with proposed programs: (a). Organizing various creative events that are published as widely as possible, such as the implementation of the Karo cultural festival consistently every year. (b). Cooperation with travel vloggers travels bloggers and celebrity programs for promotion. The target market for this publication is millennials, triennials, and possibly generations in their 40s and 60s. The use of this media is quite effective to create brand awareness in Karo Regency. According to data from that 50% of internet users in Indonesia are Instagram users. This tactic is often referred to as influencer marketing and is very effective. The involvement of Penta helix stakeholders in agro-tourism development in Karo Regency. Agro-tourism is a series of tourism activities that involve the use of agricultural land/plantations or related facilities that become a tourist attraction in a certain place. Karo Regency which is famous for its natural resources, agro-tourism has been developed, but not yet optimal. The implementation of agrotourism is very appropriate to be carried out in Karo Regency because it is very environmentally friendly, becomes a separate publication facility for natural products, and encourages further studies of land and agricultural development that are suitable to become superior natural products in Karo Regency. Development of a travel pattern for agro-tourism products by displaying the Karo Regency's mainstay natural products: Berastagi oranges, strawberries, horticulture (carrots, tomatoes, cabbage, broccoli), and dates under the foot of Mount Sinabung, shallots, coffee, and flowers. Study of travel patterns, namely supporting tourist attractions such as the Sinabung (Karo) mountains. Optimizing self-picking tours (eg, picking strawberries, picking oranges). Fruit picking tourism is currently not optimal because the concept of agro-tourism has not been packaged properly by garden managers and only 'sells the experience. Tourists who have come have not been briefed on the rules to maintain cleanliness and not damage the agricultural/plantation environment. Cooperation with travel agents in the development of agro-tourism products, both in product planning, marketing, and organizing tour packages. The media publish agro-tourism activities and also market them to a wider target market.

The Triple Bottom Line (TBL) was launched by John Elkington in 1997. The purpose of this model is to support the decision-making process of integrating the three Ps: People, Planet, and Profit (O'eliené, 2017). Planet (environmental quality). The importance of concern for the environment and the sustainability of biodiversity. The results of the observations show that the community and visitors around agro-tourism are still lacking in the awareness to dispose of waste in its place so there is still a lot of waste found around agro-tourism, but in maintaining plant sustainability, visitors and managers always maintain environmental sustainability such as not damaging the surrounding plants and Pay attention to the existing waters and

maintain soil fertility to maintain plants. Prosperity. Pay attention to the economic values of a tourist place. The results of the observations obtained that the opportunities that exist in agro-tourism that can be utilized are the existence of a water pool that is used as a fishing pond to attract the attention of visitors who only plan to rest for a while, add rides for games aimed at children and add more unique photo spots for tourists. attract visitors' attention, beautiful scenery. Places for camping (for young people) Employees who are always ready and have good communication skills in directing tourists can be developed so that they can increase tourist visits to agrotourism. People (social welfare). Companies must have a concern for the welfare of the community. The observation results have an opportunity that can be utilized by the surrounding community, namely the community can open a business around agrotourism so that it can increase income and reduce the unemployment rate in the village. Some of the income obtained from agrotourism is given to the community in the form of basic food assistance, medical expenses, and compensation for orphans. This can help improve the welfare of the community.

Sapta Pesona is a description of the tourism awareness concept related to using the support and role of residents as hosts to build a safe environment and atmosphere that can encourage the growth and development of the tourism industry through the realization of the seven elements in Sapta Pesona. Sapta Pesona is a program public awareness about the importance of being aware.

Tours that provide invitations, directions, guides so that the public understands the impact generated from the Sapta Pesona program as one of the innovations defined as an the concept that describes participation and community support in promoting climate travel conducive to the development tourism in an area or place (Depbudpar, 2008). The application of Sapta Pesona is one of the efforts in providing excellent service to tourists, especially for tourist villages, so it requires the participation of the community consisting of tourism-aware groups, homestay owners, and the government. The seven elements in Sapta Pesona are: safe, orderly, clean, cool, beautiful, friendly, and memorable (Setiawati & Aji, 2020). The description of the following sapta pesona:

Safe, meaning an environmental condition in a tourism destination or tourist destination that conveys a sense of calm, free from fear and anxiety for tourists in traveling or visiting the area. The results of observations obtained that the location of agro-tourism in Karo Regency has never had tourists who lost such as vehicles, bags, or luggage. Managers or employees are always friendly to tourists and provide important information to tourists. Ronda Post, place gathering activities often used in daily activities for maintain security. Applying some Rules, Rules apply so that it doesn't happen misunderstanding between villagers with tourists, as well as between traveler with traveler. Home Stay Placement set up, set up in the form of a building area that has been allowed to build a house, and distance between houses already provided for each household head.

Orderly, is an environmental condition and service in a tourism destination/tourist destination area that reflects high disciplined behavior and physical quality as well as consistent and regular, and efficient service to provide a sense of comfort for tourists in traveling or visiting the area. The results of the observation tourists in agro-tourism in Karo Regency carry out a queuing culture in purchasing entrance tickets and also comply with existing regulations such as not destroying plants or existing facilities and infrastructure.

Clean, is a condition for the environment and the quality of products and services in tourist destinations that reflect a healthy condition to provide a sense of comfort and pleasure to tourists when traveling or visiting the area. The results of the observation showed that most of the tourists had disposed of their garbage in its place but there were still tourists who littered so there was still garbage scattered around the agro-tourism fields. However, employees/managers always look neat and clean in carrying out their duties and always prepare clean food and beverage equipment. The condition of the bathroom in the rice field agrotourism is also clean and equipped with running water.

Cool, is a condition in a tourist destination area that reflects a cool and shady condition that will provide a comfortable feeling for tourists when making their visit to the area. The results of the observation Karo Regency has cool air with beautiful natural scenery, both mountains and the beauty of Lake Toba. This is what makes many people visit Karo Regency just to enjoy nature and agriculture. Karo Regency is known as a producer of vegetable/horticultural crops and also a producer of citrus. Karo Regency is also a producer of ornamental plants, therefore many visit Karo Regency to enjoy the beautiful flowers in the Thousand Flower Park Agrotourism. Currently, under the feet of Sinabung, there is agrotourism of dates. The government supports all existing agro-tourism. The Karo Regency Government cooperates with agro-tourism managers and village governments to promote agro-tourism in Karo District by providing the necessary training and facilities in the hope of increasing tourist visits.

Beauty is a commodity in a tourist destination that reflects a beautiful condition and conveys a deep impression to tourists as a result of realizing the potential for repeat visits and encouraging the increased promotion of the wider tourism market. The results of the observation there are many beauty spots in Karo Regency agro-tourism. During the harvest season, beauty is seen, the emergence of new agro-tourism with more complete facilities. This will lead to increased tourist visits to agro-tourism in Karo Regency but this does not rule out the possibility of tourists visiting agro-tourism to relax with family, and enjoy the cool air with beautiful views. beautiful, take pictures with interesting photo spots and can buy fresh agricultural products. Implementing 5S in each activity (smile, Greetings, Polite, Courteous, who). Serve wholeheartedly and have sincerity and patient in dealing with Traveler

Friendly, is an environmental condition that comes from the attitude of residents in tourist destinations that reflect an intimate and open atmosphere. The results of the observation that managers/employees in agro-tourism are always friendly and good at serving tourists, providing good and polite information or directions to confused tourists, respecting others, and always giving a sincere smile to tourists.

Memories, is a form of a memorable experience in a tourist destination that will give tourists a sense of pleasure and beautiful memories. The results showed that most tourists got memories from their visits to agro-tourism in Karo Regency, namely, although the weather was very hot, the air around agro-tourism remained cool which caused tourists to visit the agro-tourism and be able to enjoy the existing facilities and infrastructure.

Excellent maid who given through the spell of enchantment as a reflection in carrying out daily activities is expected to have an impact on activities sustainable tourism for tourists, through the application of the sapta pesona of the Tourism Village Importantsari has implemented Standard Operational The system that has been provided by the Tourism Office. The results of Setiawati & Aji (2020) research show that excellent service is needed in tourist villages, because tourist villages have special characteristics that can be used as tourism, namely the culture and natural beauty of the village. The form of excellent service in the form of attitudes, attention and actions taken in tourism activities in the Importantsari tourist village must contain elements of Safe, Orderly, Clean, Cool, Beautiful, Friendly and Memories for tourists carried out by tourism business actors, among homestay owners, restaurants and centers souvenirs.

Utami & Novikarumsari (2022) research related to empowering lego coffee farming communities towards sustainable agro-tourism in the perspective of the Pentahelix model in Gombongsari in Banyuwangi district shows that (1) Tunas Harapan Farmer Group and Pokdarwis Gombongsari are the main actors in developing agro-tourism through on-farm and off-farm Lego Coffee processes, (2) Poktan and Pokdarwis empowerment requires processing assistance and access to marketing and (3) group-based empowerment involves various stakeholder roles in a pentahelix perspective (academicians: UNEJ and UPN-VJ; business: BNI and Pertamina, community: Poktan and Pokdarwis; to support sustainable agro-tourism in Gombongsari, Banyuwangi Regency. Research from Lestari et al. (2022) shows that communication indicators have been going well between pentahelix actors in inclusive development, but coordination indicators have not run optimally because academic actors only coordinate with the community and do not coordinate with other pentahelix actors in inclusive development in the development of Kampoeng Kopi agro-tourism. Social inclusive development indicators have not run optimally and economic inclusiveness has been well implemented by pentahelix actors. Karo district tourism development uses the pentahelix model, which already involves 5 (five) elements, namely: academia, government, community, business, and mass media. From the research results it is known that community elements (tourist activists) have a very strategic role, namely a group that is able to coordinate all elements in tourism development in Karo Regency.

Conclusions

Based on the above research it can be concluded that Pokdarwis is the main actor in the development of agro-tourism in Karo Regency. The government (Department of Tourism and Department of Agriculture) must play a role in developing agro-tourism in Karo Regency in collaboration with the village government. Group-based empowerment involves various roles in the Penta helix perspective (academics: USU, Indonesian Methodist University, UMA, UISU, Nomensen; business: BNI and BRI, community: Poktan and Pokdarwis; Government: village government, agriculture office, tourism office; and media: print media and online media.

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