

COLLABORATIVE TOURISM MANAGEMENT BASED ON THE CULTURAL HERITAGE AND NATURAL RESOURCES OF THE TUO KAYU JAO MOSQUE IN SOLOK REGENCY

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Abstract

This study examines tourism management that integrates cultural heritage and natural resource based collaboration at Masjid Tuo Kayu Jao in Solok Regency, West Sumatra. As a historic Minangkabau heritage site, the mosque offers architectural value and natural scenery that attract visitors. Using a descriptive qualitative method through observation, interviews, and literature review, the research identifies management strategies that support sustainable tourism. Findings indicate that stakeholder collaboration is essential to balancing cultural preservation with environmental utilization. Management efforts include restoration that maintains historical integrity, the development of eco-friendly facilities, and the enhancement of community participation. This approach not only safeguards the site and its surroundings but also generates socio-economic benefits. The study contributes to the development of a collaborative tourism management model aligned with sustainability principles and the Sustainable Development Goals

Keywords: Collaboration, Cultural Heritage, Natural Resources, Tourism Management, Tuo Kayu Jao Mosque.

A. INTRODUCTION

Tourism has long been one of the most dynamic and influential economic sectors in Indonesia, primarily due to its rich natural, cultural, and socio-cultural diversity. In this context, tourism management plays a crucial role, as sustainability and inclusive growth depend on how various elements, from culture to the environment to the economy, are harmoniously integrated, as emphasized in the global sustainable tourism study (UNWTO, 2018). It is noteworthy that effective tourism management does not rely solely on promotion or facility improvements; it also requires strengthening human resource capacity, developing more targeted promotional strategies, and developing tourism products that are authentic and relevant to the character of the destination. Interestingly, various studies also show that the direction of this development continues to evolve with increasing attention to governance and innovation in sustainable tourism (Hall, 2011). Thus, the direction of development in this sector no longer solely emphasizes economic aspects, but increasingly places cultural and environmental preservation as essential and inseparable foundations.

On the other hand, one approach increasingly highlighted in the literature is collaboration based on cultural heritage and natural resources. This approach, when implemented seriously, opens up collaborative opportunities between local governments, local communities, academics, and tourism industry players to design more authentic, contextual, and sustainable tourism experiences. This perspective is strongly supported by research on community-based

tourism, which shows that community involvement not only improves local economic well-being but also strengthens their cultural identity (Manyara & Jones, 2007). However, what is often overlooked is that such collaboration also has the potential to be an effective conservation tool; practices such as ecotourism or agroforestry, for example, have been shown to maintain environmental sustainability while generating more equitable economic benefits for communities (Scheyvens & Scheyvens, 2019). In other words, a collaborative approach not only offers practical solutions but also enables the creation of a more inclusive and long-term tourism development model.

To optimize the tourism potential of West Sumatra while maintaining the sustainability and preservation of cultural and environmental assets, collaborative tourism management that integrates cultural heritage and natural resources is a crucial strategic approach. West Sumatra boasts a unique culture, including customs, arts, and historical structures. Its abundant natural resources, such as mountains, forests, and lakes, are a major draw for tourists. It is necessary to involve local governments, local communities, the tourism industry, and indigenous communities in a collaborative approach to planning, implementing, and monitoring tourism management. With this collaborative model, tourism management can focus on overall cultural and environmental preservation, rather than solely on economic revenue. Utilizing cultural heritage and natural resources in tourism management can increase community participation, strengthen local cultural identity, and provide positive social and economic impacts for the region. This approach can also address the challenges of tourism management, which often involve conflicts between conservation and exploitation, resulting in sustainable and competitive tourism in West Sumatra.

One of the tourist attractions in Solok Regency, West Sumatra, is the Tuo Kayu Jao Mosque, which boasts historical value and distinctive Minangkabau architecture. It is the oldest mosque in Indonesia. The Tuo Kayu Jao Mosque is not only a place of worship but also a symbol of local wisdom and an important cultural heritage for the local community. The Tuo Kayu Jao Mosque is unique for its traditional carvings and its location close to pristine natural surroundings. To maintain the sustainability of historical and ecological values and enhance its overall tourist appeal, the management of tourist attractions like the Tuo Kayu Jao Mosque requires a collaborative approach that integrates elements of cultural heritage and natural resources. Through culturally sensitive management and responsible use of natural resources, the tourism potential of the Tuo Kayu Jao Mosque can be optimally developed to enhance its historical and ecological values.

To maintain sustainability and enhance the attractiveness of a destination, tourism management must integrate cultural heritage and natural resources. The Tuo Kayu Jao Mosque in Solok Regency is a historic site with significant potential for development as a tourist attraction that combines cultural preservation and sustainable use of natural resources. Based on the research results, the researcher wants to know how to manage tourist attractions at the Tuo Kayu Jao Mosque so that cultural heritage and natural beauty can be enjoyed simultaneously? and What are the challenges faced in combining cultural preservation with the development of natural tourism in the Tuo Kayu Jao Mosque area? This study aims to find out how to manage tourist attractions at the Tuo Kayu Jao Mosque so that cultural heritage and natural beauty can be enjoyed simultaneously and identify the challenges faced in combining cultural preservation with the development of natural tourism in the Tuo Kayu Jao Mosque area. This research is expected to be useful for researchers as additional insights and scientific references in developing studies on collaborative tourism management based on cultural heritage and natural resources, for managers to help optimize collaboration on cultural and natural conservation, for academics to become a reference source for the

development of tourism management science, and for tourists themselves to improve the quality of authentic and educational tourism experiences.

B. LITERATURE REVIEW

According to Taylor and Procter, a literature review is an activity to review or reassess various published literature related to a research topic, specifically "Collaborative Tourism Management Based on Cultural Heritage and Natural Resources at the Tuo Kayu Jao Mosque in Solok Regency." The goal is to provide a comprehensive overview of relevant previous research. The following are several studies relevant to this topic (Liputan6.com, 2024).

Asyiwati et al. (2025). Exploring the potential of Mekarmanik Village as a sustainable tourism village. In managing tourism based on cultural heritage and natural resources, an integrated approach is key to achieving holistic sustainability. The study shows that collaboration between stakeholders, including the village government, traditional elders, and local communities, is necessary to integrate natural ecosystem values (such as biodiversity and traditional plantations) with cultural elements (traditional rituals and historical sites), thus not only driving economic growth through tourism diversification such as ecotourism and educational tourism, but also ensuring environmental preservation and communal identity, with an overall potential score reaching 64.53%.

Dahribal Ashar (2024) Collaboration between stakeholders in the development of Rammang-Rammang Karst Tourism towards UNESCO Geopark Heritage in Maros Regency. Pokdarwis (Tourism Awareness Groups) as field implementers, local communities such as the Anak Sungai Community, and the community as the main actors play a crucial role in developing tourism based on karst natural resources (such as prehistoric caves, rivers, and traditional Jolloro boats) integrated with local cultural elements, towards recognition as a UNESCO Geopark Heritage. This study explores the role of collaboration between stakeholders, including local governments, local communities, and the private sector, in managing natural tourism destinations integrated with cultural heritage elements in South Sulawesi. The results show that effective collaboration can improve management sustainability through environmental conservation strategies, innovative marketing, and facility development, ultimately supporting the achievement of UNESCO geopark heritage status.

Arifin (2023). Cultural Heritage in the Context of International Standards: Safeguarding Cultural Heritage for Sustainable Development. Emphasizes that the preservation of tangible cultural heritage such as historic buildings (including centuries-old mosques) must be an integral part of every tourism destination development and management project. Cultural heritage-based tourism management plays a crucial role in realizing sustainable development because it integrates the preservation of cultural values, the economic empowerment of local communities, and the protection of the natural environment. Through a collaborative approach between the government, international financial institutions, and local communities, cultural heritage is not only protected from damage but also becomes a sustainable economic resource.

The three journals mentioned above share similarities with the topic of the researcher's research. They all examine cultural heritage management or tourism development that integrates social, cultural, and environmental elements. Despite these similarities, there are, of course, differences that can be explored. Journal 1 focuses on the development of Mekarmanik village as a sustainable tourism village in general, with an approach that encompasses the village's social, economic, and environmental aspects. Journal 2 emphasizes marketing strategies, innovation, and the development of tourism facilities as part of efforts

to achieve international-standard UNESCO geopark status. Journal 3 focuses on the role of international institutions, such as the Multilateral Development Bank (MDB), in safeguarding and preserving cultural heritage within the context of global sustainable development. These three journals differ from the research topic, which focuses on collaborative management of cultural heritage-based tourism and natural resources, specifically at the Tuo Kayu Jao Mosque in Solok.

C. RESEARCH METHODOLOGY

This research uses a descriptive qualitative approach, chosen to explore and describe in depth how tourism is managed at the Tuo Kayu Jao Mosque, Solok Regency, which prioritizes collaboration based on cultural heritage and natural resources. Researchers conducted interviews with the mosque's administrators and managers who were deemed capable of explaining the research topic best. Then, observations were carried out by directly observing the objects or phenomena being studied to collect data in a systematic manner. Researchers documented behaviors, activities, or circumstances that occurred according to previously developed observation guidelines, either through participatory methods as involved situational factors or non-participatory methods as outside observers. This method allows researchers to obtain natural and in-depth data, without sacrificing the integrity of the research object. Then, researchers conducted a literature review, a method carried out by collecting, analyzing, and synthesizing information from several reliable library sources, such as books, journals, articles, and documents. The purpose of this method is to examine theories and the results of relevant previous research, with the hope of providing a foundation, strengthening arguments, and identifying gaps that can encourage further research. This systematic literature aims to help researchers develop a research framework, formulate hypotheses, and provide answers to research questions in a systematic and organized manner, and use valid and up-to-date literature. Literature reviews help researchers find research problems, find relevant information, and examine basic theories that support the research.

D. RESULT AND DISCUSSION

The Cultural Heritage of the Tuo Kayu Jao Mosque

The Tuo Kayu Jao Mosque is a tourist destination renowned for its unique architecture and historical significance. The Tuo Kayu Jao Mosque not only offers spiritual and religious tourism but also offers a chance to experience the unique Minangkabau culture, its ancient philosophy, and local wisdom. The Tuo Kayu Jao Mosque is the oldest mosque in Indonesia, located in Jorong Kayu Jao, Nagari Batang Barus, Gunung Talang District, Solok Regency, West Sumatra. This statement was confirmed by an informant named Wal, a 50-year-old administrator and manager of the Tuo Kayu Jao Mosque:

"The Tuo Kayu Jao Mosque has been standing since 1419 and is now 606 years old. The Tuo Kayu Jao Mosque was the first place where Islam was spread in Indonesia, and then to Java. It was founded by prominent local scholars Angku Masyhur and Angku Labai, who are buried on the grounds. Restorations have been carried out, but the original character and shape of the Tuo Kayu Jao Mosque remain unchanged. The Tuo Kayu Jao Mosque also has an odd number of stairs, windows, and doors, symbolizing the pillars of Islam and prayer. In Islam, the Tuo Kayu Jao Mosque also uses a roof made of palm fiber and a structure made of jao wood. Originally, the Tuo Kayu Jao Mosque was called the Nur Ikhlas Mosque. After being inaugurated as a cultural heritage site, its name was changed to the Tuo Kayu Jao Mosque, as it is known today. The mosque's colors have also been preserved." symbolizing the oldest mosque in Indonesia."

Based on the interviews, it can be seen that the Tuo Kayu Jao Mosque is a unique cultural heritage building. It is not only a place of worship but also plays a vital role in preaching and strengthening the local Muslim community, serves as a center for social and cultural activities, and serves as a significant destination for tourists seeking to learn about Minangkabau history and local wisdom. The Tuo Kayu Jao Mosque has become an important religious and cultural tourism destination due to its historical and philosophical value and the authenticity of its structure, which has been preserved for centuries. This provides an opportunity for tourists to learn about the history of Minangkabau Islam and appreciate the richness of traditional culture that still lives on today. Beyond preserving its cultural identity, the mosque's preservation serves as strong evidence of how traditional and religious principles can complement each other in a harmonious architectural whole over the years.

The cultural heritage of the Tuo Kayu Jao Mosque clearly demonstrates how a religious site can develop into a multifunctional socio-cultural space and persist as a marker of the historical identity of the Minangkabau people. This phenomenon aligns with studies showing that traditional religious sites often function as centers of cultural activity as well as spaces for the formation of collective memory in Muslim communities (Jones, 2017). The mosque's architecture, rich in religious symbolism and traditional philosophy, also reflects the deep relationship between the building's physical form and the construction of its social meaning, as explained in studies on Islamic architectural traditions and innovations (Frishman, 2000). From a community perspective, the sustainability of ancient mosques like this generally relies on local knowledge, traditional values, and community involvement, rather than solely on formal government structures; this pattern has also been documented in various community-based conservation studies in other regions (Su & Wall, 2014). The use of distinctive materials, traditional structural designs, and symbolism passed down across generations are part of the intangible heritage inherent in the building and are key to maintaining its cultural identity (Smith, 2006). Thus, the Tuo Kayu Jao Mosque serves not only as a place of worship but also as a space for historical learning and the transmission of cultural identity for the local community, as is often the case with historic mosques in various Muslim regions (Stephenson, 2014).

However, the preservation of this ancient mosque is not free from tensions between the interests of cultural conservation and the pressures of tourism development. Various studies have shown that converting a mosque into a tourist destination can pose a risk of excessive commodification if not accompanied by community-oriented governance (Olsen, 2019). Maintaining the building's authenticity without major changes does strengthen its heritage value, but at the same time requires a careful management model to maintain cultural authenticity (Timothy, 2011). The reliance on individual initiative and limited formal collaboration also indicate the need for a more participatory governance approach, as suggested in the heritage governance literature (Waterton & Smith, 2010). Therefore, a management model must be designed that balances cultural preservation, religious values, and the needs of sustainable tourism in the future (Jones, 2017).



Figure 1. Tuo Kayu Jao Mosque
Source: Processed by Researchers, 2025

Natural Resources of the Tuo Kayu Jao Mosque

The Tuo Kayu Jao Mosque is situated on a hillside at an elevation of 1,152 meters above sea level. Surrounded by rolling green gardens, the mosque offers visitors a soothing natural atmosphere. For those seeking tranquility away from the hustle and bustle of the city, the Tuo Kayu Jao Mosque offers stunning views. Based on field observations conducted on October 16, 2025, researchers found that a clear river flows around the Tuo Kayu Jao Mosque, and under a bridge, congregants can perform ablutions, adding to the fresh and beautiful atmosphere of the mosque. The flower garden in the courtyard adds to the mosque's comfortable and Instagrammable atmosphere. The hillside location provides cool air, and the expanse of green tea plantations along the path to the Tuo Kayu Jao Mosque significantly contributes to the natural tourism experience for visitors to the Tuo Kayu Jao Mosque. The mosque's eco-friendly concept combines wooden architecture, a mossy palm fiber roof, and the natural charm of its surroundings. Thanks to the culture fostered by the Tuo Kayu Jao Mosque, Islam has flourished in the Minangkabau region.

The Tuo Kayu Jao Mosque is a mosque with architectural and natural beauty, creating a sense of serenity for tourists. The Tuo Kayu Jao Mosque stands majestically amidst the beauty of nature, making it a place for both worship and tourism. Its beauty adds to the appeal for tourists who want to enjoy the tranquility while learning about the history and traditions of managing a place of worship that has existed for a long time. The Tuo Kayu Jao Mosque demonstrates the concept of heritage-based tourism combined with natural beauty, demonstrating how the preservation of historic buildings can harmoniously collaborate with the potential of nature, creating an authentic and educational tourism experience while supporting environmental sustainability and local cultural identity. This potential also opens up opportunities for the development of the creative economy in the surrounding area, by encouraging local communities to become better.



Figure 2. Tuo Kayu Jao Mosque Environmental Park
Source: Processed by Researchers, 2025

Tuo Kayu Jao Mosque Management Strategy

Wal stated the management strategy for the Tuo Kayu Jao Mosque:

"I manage and administer this mosque myself without any involvement from the community or government. What I'm currently doing is restoring the mosque's structure, including the roof, ceiling, and floor, without altering its original form. I've also installed rejected ceramic tiles in the outer courtyard of the mosque. I'm also utilizing the natural resources available at the Tuo Kayu Jao Mosque, for example, by creating a garden, which I hope will cool the front yard. The river that flows beneath the mosque is also used as a playground and bathing area. I've also built pavilions in the garden area and around the mosque for tourists to rest and eat. I've built access roads by casting the road and constructing the gates of the Tuo Kayu Jao Mosque from recycled materials. I also made the inscriptions for the Tuo Kayu Jao Mosque from recycled zinc, and the bridge crossing the river to the garden is made from recycled wood."



Figure 3. Management of historical heritage at the Tuo Kayu Jao Mosque
Source: Processed by Researchers, 2025

Based on the results of the interview, it can be seen that a strategy for managing collaborative heritage tourism, particularly related to the preservation of the history, culture, and natural beauty surrounding the mosque, is urgently needed at the Tuo Kayu Jao Mosque in Solok Regency. This collaborative approach requires the support and cooperation of stakeholders such as the Regional Government, the local community, community-based tourism (CBT), and the tourism and creative economy sector. This intervention preserves and maintains the distinctive Minangkabau buildings and the mosque's religious nuances, while also prioritizing the preservation of the green hilly environment (ecosystem services). To maintain the integrity of the site and its natural environment, road signs should be added, supported by information tours and interactive trails about the mosque and local culture. To strengthen awareness of cultural preservation, local initiatives can be involved, as well as tour guide training, destination management, and promotion. Ecotourism practices based on managing visitor restrictions and preserving natural resources also play a crucial role. With this strategy, the Tuo Kayu Jao Mosque can become an iconic destination that also protects the environment (eco-friendly community development) and empowers the community (sustainable community development) in Solok Regency.

E. CONCLUSION

The collaborative management of cultural heritage and natural resource-based tourism at the Tuo Kayu Jao Mosque demonstrates that methods integrating the preservation of cultural values and the preservation of the natural environment can create authentic, educational, and sustainable tourism experiences. The Tuo Kayu Jao Mosque is a place of worship and a historical site with distinctive Minangkabau architectural value that has been preserved for centuries. It also symbolizes local wisdom combined with the beauty of its surrounding nature.

This tourism management optimizes the potential of cultural and natural resources in a way that benefits the community while preserving cultural heritage and the environment for the future. This is achieved through collaboration between the local government, local communities, and business actors. The success of this tourism model depends heavily on the management approach used, such as building environmentally friendly supporting facilities, restoring buildings without altering their historical value, and involving the community in management and promotion.

This research also demonstrates that tourism management at the Tuo Kayu Jao Mosque, which focuses on cultural heritage and natural resources, can be a management model that supports sustainable development. Cultural and environmental preservation can go hand in hand with local community economic empowerment by involving various parties in a collaborative and sustainable manner. Furthermore, this method has the potential to address the mismatch between the demands of tourism growth and conservation needs, resulting in harmonious and innovative management. Tourism management at the Tuo Kayu Jao Mosque teaches tourists the importance of simultaneously preserving historical, cultural, and natural values, while also supporting sustainable development goals. Therefore, management programs like this should continue to be encouraged and developed as a strategic effort to promote sustainable tourism to other regions in Indonesia with abundant cultural and natural potential.

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