

Empowering Local Society Through Digital Regenerative Tourism: A Community-Based Tourism Bali Model at Candi Tebing Tegallingga, Gianyar, Indonesia

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Abstract

sustainability but also on social, cultural, and environmental restoration and empowerment. This research aims to develop a Balinese-style Community-Based Tourism (CBT) based tourism management model that is integrated with a digital regenerative approach at Tegallingga Cliff Temple, Gianyar. This research uses a qualitative-descriptive approach with a case study method, through in-depth interviews, field observations, and documentation studies. The results of the study show that the management of the Tegallingga Cliff Temple is still conventional and has not utilized digital technology optimally. Balinese-style Community-Based Tourism (CBT) principles, rooted in local values such as Tri Hita Karana, have great potential to be integrated with participatory digital platforms. This research formulates a website-based tourism management model that not only supports promotion and education but also encourages the active participation of local communities in cultural preservation and economic improvement. This finding is expected to be a reference in the development of cultural tourism destinations in other areas in Bali, as well as in other similar regions in Indonesia and the world.

Keywords: *Community-Based Tourism (CBT), Balinese Model CBT, Regenerative Tourism, Digitalization, Community Participation, Tegallingga Cliff Temple, Tri Hita Karana.*

Introduction

Tourism as a strategic sector in economic development and cultural preservation has undergone a major transformation in line with technological developments and the demands of tourism sustainability (Sanjaya, 2024; Vong et al., 2024). In the global context, the concept of regenerative tourism is starting to replace the sustainable tourism paradigm (sustainability tourism), with an emphasis on the recovery of social and ecological systems and the empowerment of local communities as the main actors. In Indonesia, and especially in Bali, the Community-Based Tourism (CBT) model has long been recognized as an approach that is in accordance with the values of local wisdom, such as being relevant to the concept of Tri Hita Karana, which harmonizes human relationships with God, others, and nature, but the term community in Bali will be more suitable to be interpreted as a term for society (Muda, 2025). The term community in Bali institutionally has a uniqueness and is closely attached to the culture and members of its community.

Tourism challenges arise when local tourism management is not integrated with the times through adaptation to the development of digital technology and regenerative tourism. One concrete example is Tegallingga Cliff Temple, Blahbatuh, Gianyar, an important archaeological site and cultural heritage in Gianyar Regency, which has great potential as a cultural tourism destination. Unfortunately, the management of this site is still traditional, with limitations in aspects of digital promotion, tourism education, and the active participation of local communities in the development of tourism destinations. The existence of Tegallingga Cliff Temple as one of the cultural heritage sites is the nation's cultural wealth that has an important meaning for the understanding and development of history, science, and culture in people's lives. Law No. 11 of 2010 concerning Cultural Heritage indicates that Cultural Heritage objects are natural or man-made objects, whether moving or immovable, in the form of units or parts that have a close relationship with culture and the history of human development, and if you

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look at Gianyar Regency, there are quite a lot of historical heritage temples as cultural heritage objects such as the Tegalinggah Cliff Temple (Nugraha & Darmawan, 2021).

The development of a tourism management model that is able to integrate the principles of the Balinese Model Community-Based Tourism (CBT) with a regenerative digital approach is an urgent need. The application of digital technology, such as an applicative website, not only functions as a promotional tool but also as a platform for empowerment, education, and continuous involvement of local communities. Goodwin (2009) explained that Community-Based Tourism (CBT) is a form of tourism owned and managed by the community, for the community, which in Bali will be better known as the community. Most of the economic benefits go directly to the community. In practice, Community-Based Tourism (CBT) typically involves activities such as homestays, cultural tours, ecotourism, local crafts, and traditional culinary, all of which are developed by maintaining local cultural values within the principles of regenerative tourism. Another goal is to increase the capacity of the surrounding community, be able to compete professionally, raise local wisdom, and advance the tourism economy without losing the cultural identity of the community.

Based on the background mentioned above, this study highlights several things that can be discussed further and answer several important questions: (1) What is the existing condition of tourism management in Tebing Tegallinggah Temple, Gianyar, Bali, especially related to the participation of local communities?. (2) What are the challenges faced by the local community in actively participating in tourism management in the Tebing Tegallinggah Temple area? (3) How can Bali's typical Community-Based Tourism (CBT) model be designed and integrated with a digital approach to create participatory and regenerative destination management?

This research is expected to formulate a digital-based cultural tourism management model that prioritizes local community empowerment, cultural preservation, and destination sustainability, as well as a reference for the development of similar sites in Bali and other regions in Indonesia.

Research Methods

This study uses a descriptive qualitative approach with a case study method. This approach was chosen to explore in depth the social, cultural, and technological dynamics in the context of the management of the Tegallinggah Cliff Temple. The location of the research is the Tegallinggah Cliff Temple in Bedulu Village, Blahbatuh District, Gianyar Regency, Bali. The subjects of the study include community leaders and traditional village administrators, local tourism actors (guides, craftsmen, MSMEs), village governments or related tourism offices, and local/international tourists (as supporting informants). The data sources to be taken and used in this study consist of two types, namely secondary and tertiary data.

The Data Collection Techniques are as follows: in-depth interviews with key figures to gain perspectives related to history, local values, and expectations for digitalization. Field observation by directly observing tourism activities, digital infrastructure, and community interaction. Documentation studies include archives, data from the tourism office, and existing digital content (if available). The data was analyzed using the Miles & Huberman approach, namely by data reduction, data presentation (display), and drawing conclusions. A thematic approach was also used to identify key patterns in the integration of Balinese CBT principles, regenerative tourism, and the use of digitalization.

Results and Discussion

Tegallinggah Cliff Temple is an important archaeological site located in Banjar Tegallinggah, Bedulu Village, Blahbatuh District, Gianyar Regency, Bali. Rediscovered in 1952 by a Dutch researcher named Krijgsman, this site is estimated to have been built in the 12th century AD during the Ancient Bali period (Artanagara, 2019). The uniqueness of Tegallinggah Cliff Temple lies in its building structure, which is carved directly on a rock cliff on the banks of the Pakerisan River, in contrast to other temples in Indonesia, which generally stand apart from the bedrock. Based on archaeological studies, this complex serves as a hermitage and petritan for spiritual activities such as meditation and self-cleansing (melukat) in the Balinese Hindu tradition (Wiwin et al., 2023). On the cliff, there are hermitage niches, reliefs, and the remains of structures that show the existence of elements of worship of the Trimurti, namely Brahma, Vishnu, and Shiva, as a manifestation of the beliefs of the local people at that time.

From an architectural point of view, this site shows stone carvings that have not been completely completed, so it is suspected that the construction was stopped due to natural factors such as landslides or earthquakes (Manuhutu et al., 2024). The pristine surroundings with river flows and green vegetation

reinforce the spiritual and sacred atmosphere of this site. Currently, Tegallingga Cliff Temple is included in the category of Objects Suspected of Cultural Heritage (ODCB) and is under the supervision of the Bali Cultural Heritage Preservation Center. The challenges of preserving these sites include cliff erosion, development pressures, and increased tourism activities without optimal conservative management. However, its existence remains important evidence of the cultural and religious development of the Ancient Balinese people in the Bedulu region (Nugraha & Darmawan, 2021).

In addition to historical and spiritual value, Tegallingga Cliff Temple has great potential to be developed as a cultural tourism destination that is able to improve the economy of the local community. With unique architecture carved into rock cliffs and natural beauty on the banks of the Pakerisan River, this area has the potential to become a sustainable heritage tourism destination in accordance with the principles of cultural heritage preservation in Law Number 11 of 2010 concerning Cultural Heritage (Nugraha & Darmawan, 2021). The development of this tourism can be carried out through the empowerment of the surrounding community in the provision of guide services, homestay management, handicraft sales, traditional culinary, and local cultural performances. The *community-based tourism approach* is an important strategy to ensure that the community plays an active role in tourism management and derives direct economic benefits. On the other hand, local government support through digital promotion, improving access infrastructure, and tourism management training for residents is a key factor in strengthening the competitiveness of culture-based tourism in the Bedulu area (Putri, 2022).

The current condition of tourism management at Tegallingga Temple is still relatively conventional and has not yet implemented a digital-based modern management system. Based on the results of observations and interviews, promotional activities and information about this site still largely rely on word-of-mouth communication, tourist recommendations, or knowledge of local guides. There is no official digital promotional media, such as websites, active social media accounts, and online information systems, that can make it easier for tourists to obtain information about the history, location, facilities, and procedures for visiting this site. This condition shows that the use of information technology in supporting tourism management is still very limited, so the potential for promotion and tourist reach is not optimal (Sustacha et al., 2023).

In addition, the participation of the surrounding community in management activities is also still limited to physical roles such as maintaining the cleanliness of the environment, assisting in manual ticket collection, and providing simple directions to visitors. The educational and interpretive aspects that should be an important part of culture-based tourism are still not fully developed. Information related to the historical, philosophical, and cultural values of Tegallingga Cliff Temple has not been presented in the form of digital media such as interactive information boards, audio guides, or educational tourism applications that can be accessed by the public (Pendit et al., 2015).

The lack of innovation in this management also has an impact on the low awareness of tourists on the important value of the site as a cultural heritage. In fact, with the implementation of an integrated, digital-based, and actively involved management system, Tegallingga Cliff Temple has great potential to become a cultural tourism destination that is not only visually appealing but also provides a deep educational and spiritual experience for visitors. This condition shows the need for stronger synergy between related parties or *stakeholders* in supporting sustainable site management.

The role of *stakeholders* in tourism management is a very important position in determining the direction of the development of this site as a sustainable cultural tourism destination (Yulianie et al., 2025). Based on the results of observations and interviews, the involvement of parties such as local governments, traditional administrators, local communities, and tourism actors is still partially running and has not been integrated into one integrated management system. The local government, through the Bali Cultural Heritage Preservation Office and Cultural Heritage Preservation Office (BPCB), plays a role in supervising and protecting sites from physical damage, but has not fully developed digital promotion strategies and optimal local economic empowerment. Meanwhile, the surrounding community has an important role to play in maintaining the cleanliness, safety, and environmental sustainability of the site, but their involvement in managerial and decision-making aspects is still limited.

Local communities, especially traditional administrators and cultural leaders in Bedulu Village, showed enthusiasm for involvement in technology-based tourism management as long as it remained in line with cultural values and local wisdom. Bali's social system, which is based on the concept of *Tri Hita Karana*, which is a balance between human relationships with God, fellow humans, and nature, is a strong moral foundation for harmonious tourism development (Nurita & Santika, 2022). Through the

banjar system, communities can play a collective role in designing and managing tourism activities, ensuring that every step of development is not only economically oriented but also maintains the sanctity and spiritual value of the site.

In this case, there is a great opportunity to integrate the *community-based tourism* (CBT) approach with digitalization and the concept of regenerative tourism. The community is open to the idea of developing a digital platform that is able to convey the historical and cultural narrative of Tegallinggaah Temple in an authentic manner, provide a spiritual and daily tourism experience for the community, and open up new economic spaces for small business actors such as artisans and local culinary sellers. The integration between digital technology and community participation can expand the reach of promotion while maintaining the originality of Balinese cultural values that have been passed down from generation to generation.

In addition to the community, the role of tourism actors such as local guides, cultural communities, and academics is also influential in strengthening the educational appeal of the site. They can collaborate in the preparation of historical interpretation materials, digital content creation, and professional culture-based tourism training. Support from the private sector, such as tourism institutions or tourism digital platforms, is also needed to develop effective information and promotion systems. This multi-stakeholder collaboration can create a management model that is adaptive to the times without abandoning the local values that are the identity of the Balinese people. This synergy between stakeholders is then the basis for the formation of a digital-based regenerative tourism management model at Tebing Tegallinggaah Temple.

The digital-based regenerative tourism management model at Tebing Tegallinggaah Temple, Blahbatuh, Gianyar, Bali, is a form of integration between cross-party collaboration, the application of regenerative tourism principles, and the use of digital technology in controlling tourism activities in cultural heritage areas. This model emphasizes a balance between the preservation of cultural values, environmental sustainability, and the economic empowerment of local communities. It includes the implementation of operational standards (SOPs) to maintain purity and order in sacred areas, as well as the use of *regenerative checklists* as an internal evaluation tool to assess the extent to which tourism activities contribute to the preservation and restoration of the surrounding environment. Through this mechanism, tourism management is expected to run in a controlled manner and remain in accordance with the principles of Balinese cultural conservation.

As part of the digitalization of management, this model utilizes an interactive website that functions not only as a promotional and informational medium but also as a means of tourist participation. One of its flagship features is "Adopt the Planet", which helps visitors make a digital donation to support environmental regeneration programs around the site. This innovation connects the tourist experience with real actions of nature conservation, so that tourists become visitors and play an active role in maintaining the sustainability of the cultural heritage site.

The results of the research are then realized in the form of an applicative digital-based tourism management model, which presents information interactively while prioritizing the principles of environmental and cultural responsibility. The digital-based regenerative tourism management model at Tegallinggaah Cliff Temple can be described as follows.



Figure 1 Tourism Management Model

Source: Researcher (2025)

The benefits will be felt through access to information, location, images, and interesting features of regenerative tourism in connection with regulatory and control efforts in regenerative tourism management. The digital-based regenerative tourism management model is predicted to be able to collaborate with the active participation of tourists and *tourism pentahelix stakeholders*, both academics, entrepreneurs, government, media, and local communities, in supporting the implementation of regenerative tourism.

The form of output and research results produces a product in the form of the following:

1. *Tegingggah Cliff Temple* website. The website is a form of application of digital technology that contains important and interesting information, including local tour packages, regenerative tourism movement efforts, and other necessary information.
2. *Quick Response (QR) Tourist Zone Code*. The QR Code of the tourist zone, to make it easier for tourists to get information related to the area of the site in question, is placed at several points needed.
3. Prototype of the Tourism Destination governance model. Prototypes will be printed to be given to managers and stakeholders for the management of Tegalinggah Cliff Temple

However, in the effort to implement the digital-based regenerative tourism management model at the Tegallinggah Cliff Temple, there are still a number of challenges and obstacles that need to be considered. Based on the results of observations and interviews, one of the main obstacles lies in the digital literacy capacity of local communities, which still needs to be improved. Most of the residents, especially traditional administrators and tourism actors at the local level, do not have adequate skills in managing digital platforms such as websites, social media, and online promotional applications. This condition results in the potential for digitalization in site management and promotion that cannot be utilized optimally.

In addition, the lack of continuous technical assistance from the government, academics, or professional institutions is also an obstacle in itself. Website management, engaging digital content development, and technology-based promotional strategies require specialized skills that cannot be acquired instantly. Without structured training and mentoring, digital innovations that have been designed risk not functioning effectively. On the other hand, the lack of institutional support and specific regulations for the management of small cultural destinations such as the Tegallinggah Cliff Temple is also an obstacle to strengthening governance. Existing tourism regulations have tended to focus on large destinations, so small historic sites have not received proportionate attention and funding for community-based development.

However, these challenges actually open up wider opportunities for collaboration. The potential for synergy between academics, creative communities, and local governments can be a solution in strengthening the digital capacity of the community and developing a sustainable management system. Academics can play a role in research, training, and assistance in information technology; creative communities can help in the creation of engaging visual and digital storytelling content. Meanwhile, local governments play a role in providing policy support, infrastructure facilitation, and cross-sector promotion. This cross-element collaboration will strengthen the position of Tegallinggah Cliff Temple as an innovative and inclusive cultural tourism destination.

Through the implementation of an effective digital-based regenerative management model, the expected positive impacts include increasing the economic independence of local communities through active participation in community-based tourism activities. In addition, the involvement of the younger generation in digital management and cultural preservation will encourage the regeneration of cultural values that are relevant to the times. The community is not only the beneficiary, but also the main actor in preserving and developing its ancestral heritage.

In the end, with the right support and the application of a sustainable collaborative concept, Tegallinggah Cliff Temple has the potential to become a best *practice* model for the management of other small cultural destinations in Bali and even in the Southeast Asian region. This model not only prioritizes preservation and spirituality but also shows how digital technology can be used wisely to support regenerative tourism that balances cultural, economic, and environmental aspects.

Conclusion

This research shows that Tegallinggah Cliff Temple has great potential to be developed as a cultural tourism destination based on the principles of Bali-style Community-Based Tourism (CBT) and a digital-based regenerative tourism approach. The current management is still conventional and has not been optimal in utilizing information technology. However, local communities show readiness and openness to transform towards digital, as long as the process respects local cultural and spiritual values. The model developed in this study offers an integrative approach based on participatory websites, digital reservation systems, and digital literacy training as the foundation of community empowerment. Strengthening community capacity and support from various parties is the key to the successful implementation of this model in a sustainable manner. Recommendations are as follows:

1. For Regional Governments: It is recommended to provide regulatory and facilitative support to small destinations such as Tebing Tegallinggah Temple, including digital infrastructure support and training.
2. For Local Communities: Cross-generational collaboration is needed to collectively manage cultural narratives and digital platforms, while still being guided by the values of Tri Hita Karana.
3. For Academics and Researchers: It is hoped that this research can be continued into the implementation of real models (action research) and the development of other technology-based systems.
4. For Technology Developers/NGOs: Encouraged to work with communities to create simple, low-cost, and easy-to-use technology solutions for rural communities.

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