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Optimizing Cultural Tourism Potential through Sustainable Development : A Holistic Approach in Exploring Gundala-Gundala Tradition in Desa Dokan Sumatera Utara Indonesia

Optimizing Cultural Tourism Potential through Sustainable Development : A Holistic Approach in Exploring Gundala-Gundala Tradition in Desa Dokan Sumatera Utara Indonesia

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Abstract

This research raises an important goal to optimize the potential of cultural tourism in Dokan Village by exploring in depth the Gundala-Gundala tradition as one of the main attractions. In order to achieve this goal, this research includes three main pillars: first, understanding the existence and cultural heritage that is the identity of Dokan Village; second, maintaining a balance between tourism activities and the sustainability of the environment; and third, applying the principles of sustainable development in the context of local tourism. A number of previous studies have proven that tourism development based on community participation can provide various benefits, such as economic and social empowerment, environmental conservation, and protection and promotion of local culture. Therefore, this study aims to present a holistic view of efforts to achieve sustainable tourism in the midst of changing times. In addition to discussing cultural and natural aspects, this paper also reviews technological innovations in the form of digital applications specifically designed to support the tourist experience. This application has several important functions, including providing complete information about the accommodation available around tourist attractions, connecting Small and Medium Enterprises (SMEs) with the tourism industry to improve the local economy, and providing a comprehensive overview of village life, cultural wealth, and surrounding attractions. Through a discussion of the potential benefits offered by this application for visitors and the local community, this research hopes to make a significant contribution in the development of tourism in Sumatra, especially in Dokan Village. Thus, it is expected that tourism can be a driving force for sustainable economic growth and provide a sustainable positive impact on local communities capital.

Keywords: Dokan Village; Gundala-Gundala; Sustainable Tourism

1. Introduction

Indonesia is a multicultural country with many tribes, races, beliefs, culture such as traditions, arts, religious rituals, and beliefs attract many tourists, levels. Realizing this, the Karo Regency Government through the Department of main tourist destination, for the tourism industry to be a source or provider of to the karo tribe community. The Directorate of Heritage and Cultural Diplomacy in 2015 designated village as a village where most of the people have farming livelihoods. Based on what has been explained above, we see this gundala-gundala builder.

The development of digital multimedia is a technology that can be used to present more interesting information, one of which is Augmented Reality (AR). AR is a technology that combines virtual objects with real objects at the same time (real- time), is interactive and in the form of 3D animation (Ramadhan, 2021). In everyday life, AR already dominates the global market. One of the uses of AR is as a means in business, in the form of delivering product information offered to consumers, can be used for educational media, games and so on (Rida, 2021). In this case, the author offers an innovation in introducing Karo culture to the community, especially in the zilenial generation through the use of Augmented Reality technology through the design of the Culexan application.

This use of Culexan innovation can also help in reducing production costs and increasing operational efficiency, especially for small and medium enterprises. In the context of the local economy, digital innovation can strengthen the involvement of local businesses in the local supply chain, thereby encouraging sustainable local economic growth and having a positive impact on the

surrounding community. On the other hand, Culexan can also open up new opportunities for collaboration between local businesses and global businesses. By utilizing digital technology, local businesses can reach global markets and access more advanced resources and technologies to grow their business. This can help strengthen local economic growth and create a more dynamic and innovative business climate.

MSME feature there are MSME offers that can be visited, this can also make it easier for MSME players to promote their sales. Furthermore, in my cultural feature here we aim to increase user knowledge about the culture in the Dokan village area and in the news update feature will be obtained the latest news that occurs in Indonesia and the World. Based on the above background, the author made the title "Culexan – Dokan Voyage: The Efficiency of Gundala-gundala Cultural Heritage as a cultural tourism n Dokan Village based on digital applications in increasing sustainable economic development.".

2. Literature Review

2.1. Philosophy

In the ongoing era of globalization, many communities around the world face challenges in maintaining their cultural identity while adapting to the demands of economic and technological developments. Dokan Tourism Village, as a microcosm entity of local society, reflects the constant struggle between modern development and traditional heritage. The philosophical approach of this study discusses how Dokan tourism village can achieve sustainable harmony between nature sustainability and human aspirations through the application and deep understanding of local values and wisdom.

The philosophical approach in this study includes three main pillars:
1. Existence and Cultural Heritage The first philosopher emphasized the importance of respecting and caring for local cultural heritage. In the context of Dokan Tourism Village, this aspect includes traditions, arts, languages, and spiritual practices that have colored people's lives for centuries. In the effort towards sustainable development, maintaining cultural continuity becomes the foundation for building a strong and sustainable identity.
2. Balance with Nature: The second philosophy highlights the harmonious relationship between man and nature. Dokan Tourism Village is surrounded by abundant natural beauty, such as hills, rivers, and forests. A sustainable approach in the development of tourism villages should consider the protection and restoration of nature as an integral part of people's lives. This principle refers to environmental ethics, in which humans are part of nature, not its absolute owner.
3. Sustainable Development: The third philosophy encourages sustainable development that combines economic, social, environmental, and technological aspects. At this stage, Dokan Tourism Village becomes a social laboratory to explore innovative ways to create sustainable livelihoods for local residents without sacrificing cultural values and nature preservation. The implementation of innovative applications in tourism villages must be in line with sustainability values, considering long-term social and environmental impacts.

In this philosophical core, research on Dokan Tourism Village proposes a harmonious synergy between natural, cultural, social, and technological aspects in tourism development. Through a deep understanding of local wisdom, community empowerment, and cultural heritage preservation, this research seeks to provide a more holistic view of efforts to achieve sustainable tourism during changing times.

2.2. Theoretical Framework

In this series of research used three theoretical frameworks, namely Tourism Destination Development Theory proposed by Cooper (1993), Tripartite Attraction design concept by Gunn (1972), and Adaptation theory (Kaplan 2000: 112). The concept of tourism deseminating development formulated by Cooper (1993) consists of four main elements, namely Attraction, Amenities, Access, and Ancillary services, known by the abbreviation 4A. This theory is applied in the research of Ni Putu Rika Sukmadewi, I Nyoman Darma Putra, and I Wayan Suardana in the journal JUMPA Volume 05, Number 02, January 2019. The study aims to analyze the Suranadi Tourism Village area as a location for tourism development, especially in identifying its potentials. The main objective is to provide more focused guidance on tourism development and management efforts in the region.

Tripartite attraction design theory is a concept in planning and developing tourist attractions by dividing them into three main elements: core, non- infringement belt, and closure zone (Gunn, 1972). This approach is used to identify suitable locations to develop tourism supporting facilities, such as restaurants, places to eat, as well as types of accommodation such as homestays, villas, and hotels. Furthermore, this concept also helps determine the areas that need to be preserved, thus encouraging sustainable tourism development.

Adaptation is the process of integrating cultural systems with the environment (Kaplan, 2000: 112). Humans will respond to changes that occur in their environment, both sooner and later, by adapting to these changes (Soemarwoto, 1997: 48). This is evidenced through research conducted by Bagus Putu Wahyu Nirmala and his colleagues in 2020 which shows that the application of technology in the field of village tourism has great potential to increase the number of tourists. Digitalization of village tourism can be used as a means of promotion to highlight the beauty and uniqueness of tourism villages. This is also evidenced by the increasing number of tourist visits due to the influence of promotions on the website and the use of special technologies.

2.3. Theoretical Framework

This research is based on the fact that the development of Dokan tourism village, Brand District, has not shown optimal results in introducing Gundala- gundala tradition as tourism potential. The thing that underlies this assumption is the lack of tourist visits. Research shows that tourist visits are still less regular and have not really shown a direct impact on society as an alternative tourism model for community welfare as a sustainable tourism sector. Team from Tourism Destination Study Program (S1), Fak. Tourism, Udayana University, conducted a research "Preservation and Utilization of Prabu Udayana Remains as a Leading Tourism Attraction in Bali (Efforts to Design Pakraman Kutri Village as a Tourism Village)" in 2014, with a qualitative approach and research results in the form of a development model of Pakraman Kutri Village as a Tourism Village with the icon of Bukit Dharma Durga Kutri Temple. Shows that Pakraman Kutri Village has ancient relics that have tourist attractions that should be used by the local community.

Research conducted by (Dina Mariana Br Siregar, 2015) entitled "The Form and Meaning of Tembut-Tembut Dance Symbols in the Traditional Ceremony of Ndilo Wari Udan in the Karo Community". The purpose of this study explains the meaning of the symbol of the Tembut Tembut Dance in the traditional ritual of Ndilo Wari Udan of the Karo community of Seberaya Village, Tigapanah District, Karo Regency. Research shows that Tembut-Tembut Seberaya is one of the local cultural treasures of the Karo tribe and is still related to the traditional ritual of Ndilo Wari Udan, which is the practice of the Karo people in the dry season. The purpose is to bring rain. The accompaniment of musical instruments used in the Tembut- Tembut Ndilo Wari Udan Dance is the Five Sendarang Drum musical instrument, five musical instruments are played simultaneously.

Aan Jaelani and Tika Fatichah Hanin in 2021 conducted a research entitled "Digital technology, environmental sustainability and tourism villages in Indonesia" showing that research on digital technology, sustainable environmental sustainability and tourism villages can be divided into three areas of discussion, namely: 1) digital, village development and tourism, 2) smart villages, village tourism and the environment, and 3) digital technology, sustainable tourism and environmental sustainability of the village. The first category includes the development of village and local community potential and resources. In particular, the study of digital technology, development, and rural tourism in Indonesia focuses on the function of digital technology as the driving force behind the development and use of the Internet in tourism (Fauziah &; Nasdian, 2021). The second category includes digital technology innovation in smart village development, tourism and the environment. The use of digital tools is encouraged among residents and visitors by utilizing location-based technology optimally for the convenience of tourists and geographical space in tourist villages (Ricart et al., 2019). The third category, covering the preservation of the natural environment in the village, includes tourism products, digital calendars, and marketing. This classification focuses on sustainable tourism based on digital innovation and does not exploit the economy, society, culture and environment, strengthening cooperation and collaboration in the development of tourism villages and the development of sustainable tourism destinations through the development of social, economic and technological potential (Yasir et al., 2021). From the literature review above, this study focuses on the use of digital technology in sustainable village development This analysis aims to map sustainable development in tourism villages and their surroundings as a global system developed through the use of digital technology.

The focus of development strategies is generally patterned from top to bottom, and in practice causes many economic, social and cultural conflicts. This certainly has an impact that makes the community more dependent and waiting for government development. It should be a bottom-up development paradigm oriented towards natural resource management, labor, small industry development, village empowerment, and technology application. If the tourism industry is to succeed as an indicator of equity, it must pay more attention to alternative tourism. Alternative tourism is defined as tourism whose values include natural, social and community that allow tourists or local communities to enjoy positive and beneficial interactions (Stupa, 2011). This strategy pays attention to income variables, community productivity, which aims to reduce poverty and unemployment (Suparta, 2009).

Forms of tourism development that are in line with alternative tourism include community-based tourism. According to (CIFOR, 2004), community-based tourism is the development of tourism with high community involvement participation and in social, cultural, and environmental aspects can be accounted for through approaches and cooperation between parties such as universities, research institutions, NGOs, and government. Many aspects must be considered in empowerment, especially in empowering the culture of the Dokan village community which is still widely preserved, including the Gundala-gundala Tradition. Empowerment can be done directly intact (parallel) or gradually (sequential) Kusumahadi (2007). In an empowerment effort, there are eight things that must be considered, namely: Creating an atmosphere so that local communities realize their potential (Ennabli), motivating people to participate in empowerment (Motivating), increasing community awareness in realizing the importance of development programs (Educating), encouraging communities to participate in every process (Supporting), develop protection strategies and several policies to protect the weak (Protecting), increase the potential of human resources so that the community can play an active role in development (Empowering), develop community opportunities to participate (Opportunity) and give authority to the community to take part so that they can make decisions (Devolution). Then, making feedback (feed back) is an integral part of development activities. Feedback is the activity of community involvement in self-development, life and environment (Jamieson, 1989 in Mikkelsen 1995: 63-64).

2.4. Conceptual Framework

2.4.1. Culexan Dokan Village

Culexan "Culture Explorer Dokan" Dokan Voyage is an innovative application design through the use of Augmented Reality technology that serves to facilitate tourism activities for visitors with several filturs, such as MSME filtur, hotel/lodging search feature, cultural education feature, nearby restaurant search feature, and other features (such as maps, weather, and reviews). Culexan Dokan Voyage is expected to help facilitate tourist visit activities in Dokan village, so that trips can be carried out more planned, practical, and efficient.

2.4.2. Gundala

The term "Gundala-gundala" refers to the art of covering performed by the Karo people. Initially, this art was known as "Tembut-Tembut". The origin of the word "Tembut" or "Nembut-Nembuti" means fear. In the beginning, the Gundala- Gundala mask dance had a role as a ritual to call rain (Ndilo Wari Udan); but now, the dance is more often performed as an art form that adorns the culture of the Karo people. The Gundala-Gundala Mask dance performance is accompanied by traditional musical instruments such as gongs, drums, keteng-keteng, and seruna, according to the narrative (Prima Siswanta 2017). Gundala-Gundala was originally made by Pirei Sembiring Depari, a character from Seberaya Village. The work consists of five masks, four of which depict human faces while one is bird-shaped. Gundala-Gundala has two different variants of figures or faces, namely human figures and animal figures. In human figures, there are four main characters, namely the king, empress, ulubalang, and putra diberu (princess). Meanwhile, in the animal figure variant, there is only one character, namely Perik Sigurda-Gurdi (Gurda- Gurdi Bird) (Jem Persada, 2020).

2.4.3. Cultural Village

Cultural tourism is one form of tourism that emphasizes cultural values as the main element in its development. In this concept, a mutually beneficial relationship is established between the tourism sector and cultural heritage, which goes hand in hand in harmony and balance. Cultural tourism involves the use of cultural heritage objects or cultural aspects that are still alive today as the main attraction, with the main aim of preserving and utilizing cultural heritage to prevent the loss of cultural identity over time (BPCB West Sumatra, 2020).

2.4.4. Digital Application

According to the Big Dictionary Indonesian (1998: 52) in Majalah Bagus Windya Kusuma Wardana, "Application is the implementation of a system design for data processing using certain programming language rules or layouts". Digital applications are communication tools that establish relationships between brands and potential consumers or the wider community so that they can communicate. In digital marketing systems, apps allow brands to interact with a wide community of internet users so that they can promote the brand, attract potential customers, gain more exposure to the brand and attract potential customers and market research. Creating digital applications by considering several important characteristics, such as usability, conformity with communication strategies, having visual appeal for users, entertaining (fun to use) and useful.

Augmented reality is the technology of combining two- or three- dimensional virtual objects in a real circle and processing these objects into real time (Riady, 2016). Augmented Reality technology is an effort to connect the real world, and the virtual world generated with the help of computers so that the boundary between the two is reduced which is displayed in real time and interactively. The main purpose of Augmented Reality is to create a new environment by integrating the interaction between real and virtual environments, so that users feel that the created environment is real, without significant differences between Augmented Reality and what they see or feel in that environment (Huda, 2017). Augmented Reality has a number of characteristics, namely a blend of the real world and the virtual world and ultimately in the form of more complex three-dimensional objects consisting of audio, video location data, or model data, and three-dimensional images (Punuindoong, 2017).

2.4.5. Sustainable Development

Sustainable development is a conscious and structured effort that integrates social, environmental, and economic elements into development strategies with the aim of ensuring the environmental integrity, well-being and quality of present and future generations. (Law Number 32 of 2009 concerning Environmental Protection and Management). Through careful planning and implementation, sustainable development is expected to create new jobs, reduce socioeconomic inequalities, and increase people's resilience to environmental and global economic changes. By maintaining biodiversity and balanced ecosystems, sustainable development aims to leave a better planet to future generations, where the values of environmental sustainability and awareness of the importance of harmony between people and nature become a solid foundation for long-term sustainable development.

2.5. Research Paradigm

The research paradigm used is a qualitative paradigm with axiological philosophical terminology. Axiology can be interpreted

as knowledge that is useful for knowing the nature of a value (Suriasumatri, 1987: 234). In the axiological paradigm, this study recognizes the pluralistic values that exist in Dokan tourism village, including traditional cultural values and aspirations for sustainable development. The research will ensure respect for local values, while also integrating global perspectives on sustainability and economic benefits. The action paradigm is the basis for encouraging the positive impact of this research on Dokan Tourism Village and the surrounding community. This research will prioritize collaboration with stakeholders in formulating sustainable solutions to overcome the challenges faced by this tourism village. By involving the local community, the results of the research are expected to make a real contribution in the development, management, and marketing of Dokan Tourism Village.

3. Research Methods

3.1. Research Methods

This research uses a qualitative descriptive approach that interprets and describes data according to existing conditions. Data collection in this study was carried out with an objective process without any data manipulation. In this qualitative descriptive research, using survey methods by filling out questionnaires and indirect observations. The purpose of using a qualitative descriptive research approach in this study is to describe in detail how Dokan Village implements community economic empowerment efforts based on its cultural values.

3.2. Population and Sample

The population in this study is the general public, where the collection of probability data aims to see who the main market or target for the empowerment of Dokan tourism village is. While the sample in this study amounted to 85 respondents who had filled out questionnaires. The sampling method is used with random sampling techniques, namely sampling with the entire population randomly without looking at the strata in the population (Sugiyono, 2017).

3.3. Data Collection Techniques

Data collection techniques in this study include:

3.3.1. Data Collection Techniques

Data collection with this questionnaire method is by asking several questions in a closed manner which is measured by making a choice of Yes or No statements with the aim of seeing the tendency of all respondents.

3.3.2. Studio books

The data search in this study used literature sources and previous research relevant to this study.

3.3.3. Observations

This study used an indirect observation approach, where observations were made based on explanations and through sources. The purpose of the observation is to obtain information about the identity of the research location, the community empowerment strategies used, the supporting and inhibiting factors that influence the process, and the success rate of empowerment efforts that have been implemented in Dokan Cultural Tourism Village located in Brand sub-district, Karo Regency.

3.4. Data Sources

Data sources in this study are primary data sources and secondary data sources. Primary data are research data obtained directly without going through intermediaries (J. Supranto 1994). Primary data sources are obtained through questionnaires. Obtain primary data from the results of questionnaires that are disseminated generally by random sampling methods. Random sampling is sampling with the entire population randomly without looking at the strata in the population (Sugiyono 2017). While secondary data sources are obtained through documents such as photos, activities, literature reviews derived from previous research, and tourism village profiles. Secondary data is adjusted to the needs of the analysis process carried out.

3.5. Data Validity

In the analysis of this study, the validity of the data was checked through the application of credibility triangulation. The source triangulation method is used by researchers to ensure data integrity. As explained by Sugiyono (2009: 241), the source triangulation approach involves using similar methods to collect data from a variety of varied sources. In the context of this study, researchers show a comparison of questionnaire results with several sources related to community economic empowerment through the concept of tourism villages.

3.6. Data Analysis Techniques

In this study, the method to be applied to analyze the data is an interactive approach based on the Milles and Hubberman

model (Sugiyono, 2009: 247).

3.6.1. Data Deduction

Data reduction refers to the process of shrinking information, identifying the core, directing attention to important things, and discovering emerging patterns and themes. This process is applied after researchers collect data related to community economic empowerment models, strategies used, factors that facilitate or hinder, and results achieved in community economic empowerment efforts.

3.6.2. Data Presentation

The presentation of data refers to the systematic arrangement of information that makes it possible to draw conclusions and advanced steps. Through the process of presenting data, understanding the current situation becomes easier and future planning can be made based on that understanding. In the context of qualitative research, data are presented in the form of concise and narrative descriptions of patterns of community economic empowerment, strategies used, factors that support or hinder, and the results of community economic empowerment efforts.

3.6.3. Conclusion

The final stage in data analysis is to formulate conclusions, in which the meaning of the data that has been collected is explained. After all the data is collected, the next step is to draw conclusions which are then reviewed and tested for validity.

4. Results and Discussion

4.1. Data Analysis Techniques

- Number of respondents: 86 people
- Demographics of respondents: 95% Medan City, 5% outside Medan
- Age : 16-40 years old
- Questionnaire results
  - 80.2% said they did not know Dokan Village while 19.8% knew Dokan Village.
  - 83.7% said they did not know the location of Dokan Village while 16.3% knew the location of Dokan Village
  - 86% said they did not know the traditions of the Ndilo wari udon karo community while 14% knew these traditions
  - 74.4% admitted that they did not know the Gundala dance tradition while 25.6% knew the Gundala-gundala tradition.
  - 89.5% claimed to have never seen a Gundala - Gundala performance while 10.5% had seen Gundala Gundala dance

  From the questionnaire, it can be concluded that most of the sample does not know the dokan village and Gundala-gundala tradition. We also conducted research on the extent to which the sample liked cultural tourism in North Sumatra, and obtained the following results:

  - 96.5% like cultural tourism in North Sumatra while 3.5% do not like cultural tourism in North Sumatra.
  - 62.8% do not often visit cultural tourism in North Sumatra while 37.2% often visit cultural tourism in North Sumatra.
  - 100% of respondents said they would visit if there was an interesting tourist village in North Sumatra
  - 95.3% said they were willing to participate in cultural tourism preservation by tipping a little bit just for cleaning fees, while 4.7% said they were not willing
  - 96.5% agreed if the development of tourism villages was carried out to introduce local cultural heritage in North Sumatra, while 3.5% disagreed

  From these results, all respondents agreed to visit if there are interesting tourist attractions. That means, so far cultural tourism in North Sumatra has been less desirable even 95.3% of respondents are willing to provide tips to participate in the preservation of cultural tourism. From there, we want to introduce more local cultural heritage in North Sumatra more interestingly.

  For limited access or lack of digitalization of cultural tourism, we also sparked an application called Culexan – Dokan Voyage, because this application makes it easier for us to introduce about dokan tourism villages.
  - 100% of respondents stated that the use of applications to help find hotels, restaurants, places of worship, terminals, etc. In a tourist visit will facilitate the tour
  - 98.8% are interested in visiting tourist villages if there is an application that provides features to facilitate accommodation.
  - 98.8% admitted that they find it helpful if there is an application that aims to facilitate tourist activities, such as finding the location of hotels, places of worship, restaurants, etc

4.2. Model Test Results

This research uses three theoretical frameworks, namely the theory of tourism destination development proposed by Cooper (1993), Irridex theory proposed by Doxey (1976), and the Tripartite Attraction design concept by Gunn (1972). The concept is used to identify the potential of Dokan Village as a tourism village, as well as to formulate strategies for sustainable tourism development and management. Therefore, it can be concluded that this study pays attention to existing models in tourism development, and uses these models as the basis for formulating sustainable tourism development strategies in Dokan Village and conducting tourism development.

4.3. Discussion of Test Results

This research focuses more on developing the concept and strategy of sustainable tourism development in Dokan Village, by paying attention to important aspects such as local wisdom, preservation of cultural heritage, and balance with nature. This research also pays attention to existing theories and concepts in tourism development strategies in Dokan Village. In this context, this study provides a more holistic view of efforts to achieve of local wisdom, community empowerment, and cultural heritage preservation, this in Indonesia, especially in Dokan Village with digitalization.

4.4. Theoretical Discussion

Based on the literature review conducted, research on optimizing cultural heritage for sustainable economic development in Dokan Village uses philosophical approaches and certain theories in developing the concept of sustainable tourism development. The philosophical approach includes three main pillars, namely existence and cultural heritage, balance with nature, and sustainable development. In addition, this study also uses three theoretical frameworks, namely the theory of tourism destination development proposed by Cooper (1993), Irridex theory proposed by Doxey (1976), and the Tripartite Attraction design concept by Gunn (1972).

Several previous studies have also been conducted in the context of tourism village development in Indonesia, such as Hari Nalayani research (2015) on evaluation and strategy of tourism village development in Badung Regency, as well as research by a team from the Tourism Destination Study Program (S1), Fak. Tourism, Udayana University regarding the preservation and utilization of Prabu Udayana remains a leading tourist attraction in Bali. In addition, there is also research by Dina Mariana Br Siregar (2015) on the form and meaning of Tembut- Tembut dance symbols in the traditional ceremony of Ndilo Wari Udan in the Karo Community.

In the context of sustainable tourism development, this research makes an important contribution in the development of sustainable tourism development concepts and strategies in Dokan Village, considering important aspects such as local wisdom, preservation of cultural heritage, and balance with nature. This research also pays attention to existing theories and concepts in tourism development and uses these theories as the basis for formulating sustainable tourism development strategies in Dokan Village. Therefore, this study provides a more holistic view of efforts to achieve sustainable tourism during changing times by using applications. This research also pays attention to existing theories and concepts in tourism development and uses these theories as the basis for formulating sustainable tourism development strategies in Dokan Village. Therefore, this study provides a more holistic view of efforts to achieve sustainable tourism during changing times by using applications.

4.5. Theoretical Discussion

This research was conducted to develop concepts and strategies for sustainable tourism development in Dokan Village by paying attention to important aspects such as local wisdom, preservation of cultural heritage, and balance with nature. It is important to maintain cultural continuity and build a strong and sustainable identity. This research was conducted to explore the potential of cultural tourism in Dokan Village, especially the Gundala-Gundala tradition. This is important to increase people's income and develop sustainable tourism in the area.

This research makes an important contribution to the development of sustainable tourism in Indonesia, especially in Dokan Village. By paying attention to important aspects such as local wisdom, preservation of cultural heritage, and balance with nature, this research provides a more holistic view of efforts to achieve sustainable tourism in the midst of changing times. This research is relevant to previous research on tourism village development in Indonesia, such as Hari Nalayani research (2015) on evaluation and strategy of tourism village development in Badung Regency, as well as research by a team from the Tourism Destination Study Program (S1), Fak. Tourism, Udayana University regarding the preservation and utilization of Prabu Udayana remains a leading tourist attraction in Bali. This research is also relevant to the research of Dina Mariana Br Siregar (2015) regarding the form and meaning of the Tembut- Tembut dance symbol in the traditional ceremony of Ndilo Wari Udan in the Karo community.

And also, this research was conducted to digitize the Dokan cultural tourism village using an application based on Augmented Reality technology that can help lodging visitors by providing information about lodging available around tourist attractions. This application also connects MSMEs with tourist attractions so that MSMEs can operate there and improve the local economy. In

addition, it also provides an overview of the village, culture, and tourist attractions around the tourist attraction. It is hoped that with this application, tourism in Sumatra can develop better and have a positive impact on local communities.
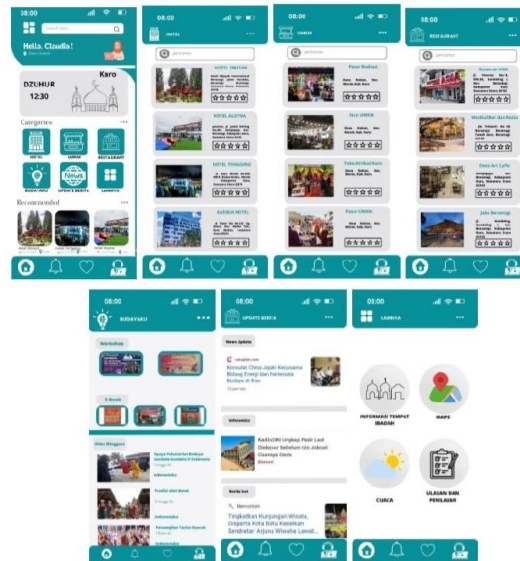
Picture 1. Culexan Application Prototype

This app is called Culexan. The features contained in the application are as follows:

1. Hotel

    The basic concept of this hotel feature is to display 3-dimensional object models using Surakarta tourism landmarks when markers have been scanned. The marker used is a marker type in the form of a picture of a hotel that is around which 3-dimensional objects will appear. In addition to bringing up a 3-dimensional hotel model, it also raises a description of the hotel ranging from facilities, prices, and also *ratings* from other visitors to become a benchmark to be used as a place to stay by application users.

2. MSME

    In the MSME feature itself, there is a search page for local MSMEs around which is accompanied by a description of the MSME, namely the products sold, the product price range, and the rating of tourist ratings from their visits to these MSMEs. From this MSME feature, blockchain technology is also used where this feature will store information related to these MSMEs and verify the authenticity of products sold at these MSMEs. So that tourists can shop comfortably.

3. Restaurant

    Restaurant feature is a feature in which there is a restaurant search page that displays the description of the restaurant, uniqueness, prices, facilities, and menus offered by the restaurant. In this feature, there is facilities, and menus offered by the restaurant. In this feature, there is In addition, this restaurant feature uses Augmented Reality technology where when pressing the location of the restaurant, a menu page will appear where each menu will appear a 3-dimensional object that will be directed at the table or in a flat place so that users can see the shape of the food sold in the restaurant is traditional or modern.

4. My Culture

    This feature displays seminar schedules, digital libraries about culture, and educational videos about culture that tourists can see as education and increase knowledge about the culture around them.

5. News Updates

    This feature displays the latest news that can be accessed by tourists, so tourists can find out the latest news of an event and become entertainment to read.

6. Other

    In this feature there are several additional features, namely the location of places of worship, maps, and weather forecasts where this helps tourists to find worship locations in order to carry out worship according to their time, find locations of

places to go, and estimate the weather in one day so that it can help tourists who will go to tourist attractions.

4.6. Planning Implementation Flow

In the implementation of this idea. The stages of implementation of ideas that need to be implemented include:
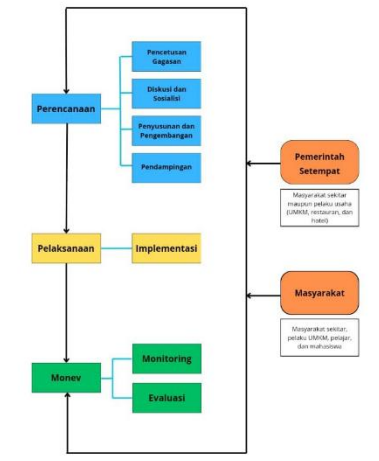
Picture 2. Implementation Flow

1. Planning Stages

    This is the first stage in the implementation process where at this stage what must be prepared is First, planning, such as designing tourism village development ideas and applications in accordance with the goals to be achieved. In designing this application is done by determining the concept and design of the most suitable and attractive application in order to provide more benefits for users.

    Second, determine the targets to be targeted by conducting discussions and socialization to facilitate the preparation of ideas in developing tourism, then collaborating with local governments, communities, and others to support building tourism development and this application. Not only that, it is also necessary to socialize the application by utilizing existing social media, inviting the academy community to help socialize this application, asking for help from the local government to provide education to the Indonesian people regarding how to use this application so that people can operate this Culexan application easily and independently. This is so that the Culexan application can be disseminated and not only used by tourists visiting the area but also all Indonesian people.

2. Stages of Implementation

    At this stage, both from the local village community and the government will establish cooperation in developing tourism tensions in the village so that many tourists will visit this tourist village. In addition, the government, the local community, or with the help of the academic community also introduced the Culexan application which we designed as an application to support the implementation of the development of this Tourism Village. To implement community empowerment programs, community participation is expected to maintain the sustainability of the programs that have been developed. Cooperation carried out by agencies and individuals is something that is very important to be maintained so that this program can continue to run.

3. Stages of Monitoring and Evaluation

    Evaluation and assessment of the program that has been designed to find out whether the program is feasible or not to be implemented. Supervise and evaluate regularly the development program and use of applications that have been built and run.

4.7. Swot Analysis

4.7.1. Strengths

- The use of Augmented Reality technology to provide interactive experiences to tourist visitors.
- Enable MSMEs to operate around tourist attractions, boosting the local economy.
- Features like "My Culture" provide visitors with information and education about the local culture.
- Involving the government, community, and academic community in the development and socialization of applications.

4.7.2. Weaknesses

- The success of this application depends largely on the availability of technology and a good internet connection.
- The process of socializing the application to the public and tourists can be challenging, requiring an effective strategy.
- Constant maintenance of content is required to maintain accurate and relevant information.

4.7.3. Weaknesses

- This application can help increase tourism in Sumatra and have a positive impact on local communities.
- Opportunities to establish partnerships with related parties, such as technology companies or tourism institutions, to expand the reach of the application.
- Potential to continuously develop new features based on user feedback and technological developments.

4.7.4. Threats

- There may be competition from similar applications or similar innovations launched by other parties.
- Limited human, financial, and technical resources can be obstacles in application development and maintenance.
- Rapid changes in Augmented Reality technology can necessitate rapid adaptation and additional costs.

5. Conclusion

Based on the results of the analysis above, the conclusions of this study, namely:heritage that has great potential to become cultural tourism in sustainable economic development. This culture can also lift the local community's economy for the better. This great potential can also attract people to preserve existing cultures so that they do not become extinct. Based on the results of the analysis above, the conclusions of this study, namely:

1. This research highlights the importance of preserving and utilizing local cultural heritage, in this case Gundala-Gundala Cultural Heritage in Dokan Village as a valuable asset that can be a tourist attraction.
2. The use of digital applications in managing and promoting local cultural heritage has opened up new opportunities to develop the cultural tourism sector. Cultural tourism has great potential to bring income and increase understanding and appreciation of local culture.
3. The integration of digital applications in the development of cultural
4. tourism in Dokan Village can contribute significantly to sustainable economic development. It creates local jobs, increases residents' incomes, and promotes the development of infrastructure that supports tourism.
5. The success of the project also depends on cooperation between the
6. government, local communities, and the private sector in the management and promotion of cultural heritage.
7. This research emphasizes the importance of sustainable approaches in the development of cultural tourism, including environmental and cultural preservation, as well as long-term benefits for local communities.

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