Analysis of the Urban Tourism in Tanjung Redep District and Surrounding Areas in Berau Regency

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Abstract. This study analyzes the Tourism of Berau Regency, focusing on urban tourism development in Tanjung Redeb District and surrounding areas. The research aims to formulate a spatial tourism planning analysis concept that aligns with the National Tourism Development Master Plan, identify and maximize the potential of local tourist attractions, improve the quality of tourism infrastructure and supporting facilities, and encourage active participation from various stakeholders in tourism management and promotion. This master plan analysis was compiled using qualitative and quantitative approaches through SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis and Business Model Canvas (BMC). Data collection involved literature studies, field surveys, and interviews with stakeholders. The analysis aimed to understand the context, potential, problems, and prospects of tourism development in this area. The results indicate that Berau Regency has significant potential for the development of natural, cultural, and artificial tourism, but requires improvements in infrastructure and supporting facilities. The strategies produced include strengthening Tanjung Redeb's branding as a cultural and tourist city, enhancing human resource capacity, and developing tourism packages tailored to local characteristics. This master plan also suggests the development of thematic tourism zones, including nature, history, education, and cultural tourism.

Keywords : Tourism, Infrastructure, SWOT, BMC, Beau Regency

1 Background

The formulation of the Tourism Master Plan for Beau Regency is based on the mandate of Law No. 10 of 2009 on Tourism, which requires tourism sector development to be conducted with principles that respect the diversit, uniqueness, and distinctiveness of culture and nature. This master plan is part of an effort to realize integrated tourism development planning from the national level to the district/city level, in accordance with Government Regulation No. 50 of 2011 on the National Tourism Development Master Plan (RIPPARNAS) 2010 – 2025.

Berau Regency, particularly Tanjung Redeb District and its surroundings, has a diverse tourism potential in terms of nature, culture, and history. To support sustainable tourism development, comprehensive and directed planning is needed to optimize this potential. This master plan is expected to serve as a guide for the Berau Regency Government, businesses, and the community in developing and managing tourism destinations synergistically and sustainably.

The preparation of this document is also a strategic step to enhance the tourist appeal of Beau Regency, with the hope of boosting regional economic growth, improving community welfare, and preserving the environment and cultural heritage. In line with the development

vision of Berau Regency, this master plan is designed to create a positive multiplier effect for various related sectors and ensure that tourism development is carried out while maintaining local characteristics and sustainability principles.

Tourism is one of the sectors with great potential to drive economic growth, particularly in areas rich in natural resources, culture, and history. Beau Regency, especially Tanjung Redeb District, is known as the center of economic and government activities in the region. Additionally, this area holds various tourism potentials, both in terms of nature and culture, that have yet to be fully optimized.

Tanjung Redeb District, as the capital of Beau Regency, plays a strategic role in the development of urban tourism. With rapid population growth and infrastructure development, this area has become an attraction for both domestic and international tourists. However, despite its significant potential, the development of tourism in Tanjung Redeb and its surroundings still faces several challenges, such as limited tourism promotion, inadequate supporting facilities, and the lack of integrated management of existing tourism potentials.

Therefore, it is essential to analyze the potential and challenges of urban tourism in Tanjung Redeb District and its surrounding areas. This analysis aims to identify the strengths, weaknesses, opportunities, and threats (SWOT) in the development of tourism in the area, enabling the formulation of appropriate strategies to optimize existing potentials and addres the challenges. Well – planned urban tourism development is expected to enchance regional competitiveness, promote local economic growth, and provide sustainable benefits to the local community.

Berau Regency, specifically Tanjung Redeb District, holds significant potential for urban tourism development. As a center of government and economy, the area has strategic advantages with easy accessibility and a range of attractive tourist destinations. However, the urban tourism potential in Tanjung Redeb and its surroundings has not yet been fully optimized. Tourism in Tanjung Redeb has not received adequate attention in terms of promotion, both locally and nationally. The area's natural and cultural tourism potential is not well - known to domestic or international tourists. The lack of promotional initiatives from local government and business operations means that the potential remains underexposed. Supporting facilities such as accommodation, transportation, and tourist information centers are still limited.

This hinders tourists' comfort in accessing and enjoying the destinations in Tanjung Redeb and its surroundings. Infrastructure quality, including roads, public transportation, and public facilities, is also insufficient to support sustainable tourism development. Despite its various potentials, tourism management in Tanjung Redeb is still fragmented and not well –integrated among the government, business operators, and local communities. The absence of integrated planning and management results in the tourism potential not being maximized or sustainably utilized. A major challenge in tourism development is the shortage of skilled human resources in the tourism industry. This is reflected in the low quality of service and the lack of a competent workforce in tourism. This limitation affects the attractiveness and experience of tourists during their visit. Therefore, it is crucial to conduct a thorough analysis of these issues to develop effective solutions for enhancing the urban tourism potential in Tanjung Redeb District and its surroundings. Addressing these problems is expected to improve local tourism appeal, create new job opportunities, and enhance community welfare through the tourism sector.

1. 1.   Problem Formulation

a.   How can an effective and sustainable tourism development strategy be formulated for Tanjung Redeb District and surrounding areas ?

b.   What steps are necessary to address the infrastructure challenges and issues affecting the

development of tourism destinations in Berau Regency ?

c. How can local community, business, and government participation be integrated into tourism destination management to achieve inclusive tourism development ?

d. What are the key potentials and weaknesses influencing urban tourism development in Tanjung Redeb, and how can these opportunities be optimized ?

e. How can a tourism branding for Beau Regency be created and promoted to attract tourists and increase competitiveness with other destinations ?

2 Literatur Review

The literature review forms the theoretical basis for the preparation of the Tourism Master Plan for Berau Regency. It includes theories and concepts related to tourism planning, destination development, and sustainability principles in tourism.

2. 1 Tourism Planning Theory

Tourism planning is a process that involves various aspects, including the management of natural, cultural, and social resources, to create attractive tourist experiences. According to Gunn [1], tourism planning should consider the interests of various stakeholders, including the government, local communities, and businesses, and should be carried out in an integrated manner to optimize existing potential. This approach aligns with the primary objective of this master plan, which is to integrate various tourism components into a comprehensive plan.

2. 2 Tourism Destination Development

According to Buhalis[2], developing a tourism destination must consider key elements such as tourist attractions, accessibility, supporting facilities, and promotion. A successful tourist destination is one that combines local uniqueness with adequate infrastructure, this attracting tourists and providing a satisfying experience. In the context of Beau Regency, destination development involves identifying the natural, cultural, and historical potentials in Tanjung Redeb District and its surroundings, and formulating strategies to enchance accessibility and the quality of toruism facilities.

2. 3 Sustainability concepts in Tourism

Sustainability is one of the main principles of modern tourism development. Butler [3] emphasizes that sustainable tourism development must balance economic needs, environmental preservation, and social welfare. In preparing this master plan, sustainability is realized through efforts to minimize the negative impacts of tourism on the environment and ensure that the economic benefits of tourism are felt by all layers of the local community. Sustainable tourism development in Beau Regency also emphasizes the importance of conserving natural resources and preserving local culture.

2. 4 SWOT Analysis and Business Model Canvas in Tourism Planning

SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis is a tool commonly used in strategic planning to identify internal and external factors affecting destination development [4]. In this master plan, a SWOT analysis is used to evaluate the current conditions and potential tourism development in Tanjung Redeb District. Additionally, the Business Model Canvas (BMC) is used to design an effective business strategy for urban tourism development. BMC helps understand the cost structure, revenue streams, and consumer relationships necessary to develop a sustainable tourism destination [5].

2. 5   Community – Based Tourism Management

Community – Based Tourism (CBT) management is an approach that places local communities as the main actors in developing and managing tourist destinations.According to Murphy [6], CBT can improve the welfare of local communities and make a significant contribution to cultural and environmental preservation. In this master plan, the CBT approach is implemented through efforts to involve local communities in every stage of planning and implementing tourism development in Beau Regency and ensure that they receive direct benefits from tourism activities.

3   Research Methodology

This research employs both qualitative and quantitative approaches to obtain a comprehensive understanding of the existing conditions, potential, and challenges in the development of tourism in Beau Regency, specifically in Tanjung Redeb District and its surroundings. The methodology includes several stages, namely data collection, data analysis, and formulation of recommendations.

3. 1   Data Colletion Techniques

The data collection techniques used in this research include

3.1.1.   Survey

Surveys were conducted to collect quantitative data regarding tourist profiles, tourism preferences, and the economic potential of tourism. Questionnaires were distributed to respondents randomly selected from among tourists and local communities.

3.1.2.   *In – Depth Interviews*

Interviews were conducted with relevant stakeholders, including local government officials, tourism destination managers, tourism business operators, and community leaders. These interviews aimed to gather in – depth information about perspectives and strategies for tourism development.

3.1.3.   Field Observation

Observations were carried out at key tourist locations in Tanjung Redeb District and its surroundings. This technique was used to identify the physical conditions of destinations, available facilities, as well as potential and existing problems in the field.

3.1.4.   Document Study

Documents such as local regulations, strategic plans, and annual reports were used to understand the existing policies and tourism development plans.

3. 2   Data Analysis Techniques

The collected data were analyzed using the following techniques

3. 2. 1.   SWOT Analysis (Strengths, Weaknesses,

Opportunities, Threats) This technique was used to evaluate the strengths, weaknesses, opportunities, and threats affecting tourism development in Beau Regency. This analysis helps in Based on the data collected, the following is a summary of the following is a summary of the SWOT analysis for tourism development in Berau Regency. This analysis helps in formulating appropriate strategies for destination development.

3. 2. 2. Business Model Canvas (BMC) Analysis

Used to design a sustainable tourism business model, the BMC allows for strategic business planning that includes value propositions, market segments, distribution channels, customer relationships, as well as key resources and activities.

3. 2. 3. Spatial Analysis

Conducted by mapping strategic locations for tourism development based on geographic and demographic data. This analysis uses mapping software to identify zones with high potential for development as tourist destinations.

3. 2. 4. Analysis of the Exponential Smoothing Method (MES)

The Exponential Smoothing Method (MES) is a forecasting method used to predict short – term economic growth in the Masterplan for urban tourism development in Beau Regency. It will be implemented in 4 zones, assuming the planning has already been established or is in line with the developed plans. This model assumes that the data fluctuates around an average, with predictions running over a short – term period of 1 year (January – December).

3. 2. 5. Forecast Error Testing

Forecast error testing is conducted by comparing forecast results with actual data. According to Sofyan [7], the smaller the error value, the higher the forecasting accuracy, and vice versa. Forecast errors can be calculated using several methods, including :

a. MAD (Mean Absolute Deviation) : The average absolute error over a certain period without
    considering whether the forecast results are greater or smaller than the actual. MAD measures forecast accuracy by averaging the absolute errors, giving equal weight to each forecast – actual deviation.
b. MSE (Mean Square Error) : The average squared error. This calculation penalizes larger deviations more than smaller ones by squaring the errors.
c. MFE (Mean Forecast Error) : This error is calculated by summing all forecast errors over a period and dividing by the number of periods.

3. 3   Analysis Results and Discussion

This research has yielded several important findings related to the development of tourism in Beau Regency, particularly in Tanjung Redeb District and its surroundings. These results were obtained through a series of analyses involving both qualitative and quantitative methods, including SWOT analysis and Business Model Canvas (BMC).

3. 4   SWOT Analysis

Based on the data collected, the following is a summary of the SWOT analysis for tourism development in Berau Regency

Table 1. SWOT Analysis for tourism development in Berau Regency

No	Location	Strengths	Weaknesses	Opportunities	Threats
1	**Zone 1 (Main Point)** 1. Tepian A. Yani	1. Vast area owned by Beau Regency	1. Part of the park is untidy.	1. Add tourist destinations. 2. Green line policy on the	1. Some park areas have buildings.

No	Zone				
	(Tourism Pier) 2. Town Square – Grand Mosque – Regent Office 3. Creative Economy HUB	Government. 2. Location supports green line development at several study points. 3. Abundant labor available for cleaning, management and security. 4. Adequate location for supporting facilities. 5. Ample river acces.	2. No adequate green line 3. Low cleanliness level. 4. No management. 5. No security. 6. No facilities. 7. River access is not yet supportive.	riverside (relocate traders). 3. Provide trash bins. 4. Good management. 5. Provide security personnel. 6. Plan and provide supporting infrastructure. 7. Design and provide tourist boats.	2. Many damaged green line areas are occupied by traders. 3. Low community cleanliness. 4. Minimal community and government management. 5. Minimal security. 6. Inadequate facilities. 7. Many trash-filled river access points.
2	**Zone 2 (Old Gold)** 1. Old Town (Tourism Pier) Dutch Administration Office, Theater, etc. 2. Bayur Riverside and Park	1. Historical site from the Dutch colonial era. 2. Historical buildings supporting heritage tourism. 3. Abundant labor for cleaning, management, and security. 4. Suitable location for supporting facilities. 5. Available pier acces.	1. Poorly maintained historical buildings. 2. Buildings not appropriately used as heritage sites. 3. Low cleanliness level. 4. No or improper management. 5. No security. 6. Inadequate facilities. 7. Pier access is blocked by vegetation.	1. Revitalize buildings according to heritage function. 2. Implement heritage site policy. 3. Provide trash bins. 4. Good management. 5. Provide security personnel. 6. Plan and provide supporting infrastructure. 7. Design and provide proper tourist piers.	1. Some buildings were altered from the original. 2. Some buildings are unfit for use. 3. Low cleanliness. 4. Minimal management from the community and government. 5. Minimal security. 6. Inadequate facilities. 7. Damaged and inadequate pier conditions.
3	**Zone 3 (Education)**	1. Large area owned by	1. Park is not well-arranged.	1. Add tourist destinations.	1. Unarranged park areas.

No					
	1. Museum Batiwakal Area 2. Riverside (Floating Spot)	Beau Regency Government. 2. Supports green line and tourist pier development. 3. Abundant labor for cleaning, management, and security. 4. Adequate location for supporting facilities. 5. Ample river access.	2. Inadequate green line and tourist pier. 3. Low cleanliness level. 4. Minimal business location management. 5. No security. 6. Inadequate parking and public toilets. 7. Pier access is not representative.	2. Green line and tourist pier policy (relocate traders). 3. Provide trash bins. 4. Waste management. 5. Provide security personnel. 6. Plan and provide supporting infrastructure. 7. Design and provide tourist-specific piers.	2. Many damaged green line areas are occupied by traders. 3. Low cleanliness, trash in the river. 4. No community management. 5. No community security. 6. Inadequate supporting infrastructure. 7. Trash-filled river access points.
4	**Zone 4 (History)** 1. Sambaliung Palace Area 2. Riverside (Sports Tourism)	1. Large, strategic location. 2. Supports green line and bicycle lane development. 3. Abundant labor for cleaning, management, and security. 4. Adequate location for supporting facilities. 5. Ample river access.	1. Poorly arranged park areas. 2. Inadequate green lines and bicycle lanes. 3. Low cleanliness level. 4. Inadequate waste management. 5. No security. 6. Minimal public facilities. 7. Inadequate, non-representative pier for tourism.	1. Add tourist destinations. 2. Green line policy on the riverside (relocate traders). 3. Provide trash bins. 4. Good management. 5. Provide security personnel. 6. Plan and provide supporting infrastructure. 7. Design and provide tourist piers.	1. Poorly arranged park areas. 2. Damaged green line areas occupied by traders. 3. Low cleanliness. 4. Minimal community management. 5. No community security. 6. Inadequate supporting infrastructure. 7. Trash-filled river access points.

Source : Processed by Research Team

3. 5　Business Model Canvas (BMC) Analysis

BMC Analysis is used to formulate a sustainable tourism development business model in Berau Regency. The analysis results highlight the importance of collaboration between the government, business actors, and the community in creating added value for tourists through the provision of quality tourism services and experiences. The development strategy focuses on increasing the value proposition through tourism product diversification, improving service quality, and leveraging digital distribution channels.

In this BMC, the focus is on four zones, such as **Zone 1 (Main Point)** in Main Land Tanjung Redeb, **Zone 2 (Old Gold)** in Teluk Bayur, **Zone 3 (Education)** in Gunung Tabur, and **Zone 4 (History of Sambaliung)** in the capital city of Tanjung Redeb. The BMC functions to determine strategies from the perspective of community economic development, where the right side focuses on customers (external), while the left side of the canvas focuses on the business (internal). Both external and internal factors converge around the central point, which is the **Value Proposition**, representing the value exchange between internal and external factors.

Business Model Canvas Analysis Developing Berau as a MICE Destination :
Berau holds immense potential to become a prime destination for Meeting, Incentive, Convention, and Exhibition (MICE) tourism. With its growing infrastructure, accessibility, and unique cultural and natural attractions, it has the capability to attract both domestic and international visitors. To successfully develop Berau as a MICE hub, a well-structured business model is essential one that takes into account partnerships, key activities, resources, value propositions, customer relationships, distribution channels, customer segments, cost structure, and revenue streams :

1) Key Partners

   The success of Berau's MICE industry depends heavily on strong partnerships. The government plays a crucial role in shaping policies, improving infrastructure, and promoting MICE tourism. Additionally, stakeholders such as investors, local businesses, and industry associations are essential in supporting event execution. The involvement of local communities also adds cultural value and contributes to a more sustainable tourism industry.

2) Key Activities

   To establish itself as a competitive MICE destination, Berau needs to develop key activities such as meetings, conventions, product exhibitions (expos), and city tours**.** These offerings will create a well-rounded experience for event participants, blending business with leisure.

3) Key Resources

   For MICE tourism to thrive, Berau requires strategically located venues with reliable infrastructure to host large-scale events. Furthermore, efficient transportation and accessibility are essential to ensure seamless travel for attendees.

4) Value Proposition

   What makes Berau stand out is its unique combination of business and leisure. The region offers a rare mix of natural beauty, modern event facilities, and rich local culture—making it an attractive destination for companies and organizations looking to host their events in an inspiring setting.

5) Customer Relationships

   To attract event organizers, Berau must establish strong collaborations with event planners who specialize in MICE. Additionally, working with travel agencies will help promote Berau as a MICE destination while offering tailored packages for participants.

6) Channels

Marketing and promotion will primarily be handled through the Tourism Office, ensuring official branding and outreach efforts. Partnering with travel agents will also expand market reach and make it easier for international and domestic attendees to plan their trips.

7) Customer Segments

Berau's MICE sector is designed to cater to various customer groups, including corporations looking to host business meetings and incentive trips, government ministries conducting conferences and official gatherings, and embassies hosting diplomatic events. Additionally, Berau has the potential to attract international relations events involving global delegates.

8) Cost Structure

The financial aspects of developing Berau as a MICE hub include fixed costs such as infrastructure investments, variable costs for operations and marketing, and unexpected expenses that may arise during event execution.

9) Revenue Streams

Berau's MICE industry can generate income from multiple sources, including venue rentals for meetings and workspaces, accommodation services, transportation, and retail sales of local products and souvenirs. Another key revenue stream is event organizing, where Berau facilitates and manages events for clients.

10) **Spatial Analysis**

3. 6. 1. Tourism Potential Analysis of Berau Regency

Based on the observations and SWOT analysis, Berau Regency, especially Tanjung Redeb District, has significant tourism potential, including natural, cultural, and historical aspects. This potential can be categorized as follows

a. Natural Tourism Potential
1) Segah River and Kelay River

These rivers have great potential to be developed as river cruise destinations offering beautiful natural views and rich biodiversity.

2) Urban Forest Area

The urban forest area in Tanjung Redeb can be developed as an ecotourism destination and green open space that supports recreational and environmental education activities.

3) Beaches and Surrounding Islands

The proximity to exotic islands like Derawan and Maratua offers opportunities for developing integrated tourism packages combining urban and marine tourism.

b. Cultural and Historical Tourism Potential
1) Sambaliund Palace and Gunung Tabur Palace

These historic sites have high historical value and can be developed as cultural and historical tourism destinations.

2) Local Arts and Traditions

The cultural diversity of local ethnic groups such as Dayak and Banjar offers potential for unique cultural and art attractions, including traditional dances, handicrafts, and cultural festivals.

3) Colonial Historical Buildings

The presence of Dutch colonial heritage buildings adds value for the development of heritage tourism in urban areas.

c. Artificial Tourism Potential
  1) City Park and Square
     These public spaces can be optimized as venues for events and recreational activities for both residents and tourists.
  2) Sports and Recreation Facilities
     Developing facilities such as bike paths, jogging areas, and family recreation parks can increase the attractiveness of urban tourism.

11) **Infrastructure and Accessibility Analysis**

3. 7. 1. Transportation

The availability of Kalimarau Airport connects Berau with major cities in Indonesia, but local transportation and inter-destination connections need improvement, particularly in terms of road quality and the availability of public transportation.

3. 7. 2. Facilities and Infrastructure

Public facilities such as accommodations, restaurants, tourist information centers, and healthcare services are still limited and unevenly distributed across potential destinations.

3. 7. 3. Information Technology

Internet access and digital information regarding Berau's tourist destinations are still suboptimal, hindering promotion and ease of access to information for tourists.

12) **Human Resources Analysis**

3. 8. 1. Capacity and Competence

There is still a shortage in the quantity and quality of trained workers in the tourism sector, including tour guides, creative industry players, and destination managers.

3. 8. 2. Community Participation

Local community involvement in the development and management of tourist destinations still needs to be enhanced through education and empowerment.

4 Discussion

Based on the research results, several important points need to be discussed in the context of tourism development in Beau Regency.

4. 1. Optimizing Tourism Potential

The natural, cultural, and historical tourism potential in Beau Regency needs to be optimized through planned development and management. Each of these potentials can be packaged into attractive thematic tourism packages, such as

4. 7. 1. Nature and Adventure Tourism

Developing activities such as river cruises on the Segah and Kelay Rivers, trekking in urban forests, and exploring nearby islands.

4. 7. 2. Cultural and Historical Tourism

Organizing heritage tours visiting palaces and historical buildings, as well as local art and cultural performances.

4. 7. 3. Educational and Ecotourism

Creating environmental education and conservation programs involving tourists in nature preservation activities.

The development of these tourism packages must be accompanied by an improvement in service quality and supporting facilities to provide a satisfying experience for tourist.

4. 2. Infrastructure and Accessibility Improvement

The availability and quality of infrastructure are key factors in tourism development. Several steps that need to be taken include

4. 2. 1 Environmental Conservation Efforts

Implementing conservation programs and sustainable tourism practices, such as eco-friendly accommodations, waste management, and the use of renewable energy sources.

4. 2. 2 Socio – Cultural Preservation

Protecting and preserving local culture and traditions, as well as ensuring that tourism does not negatively impact local communities.

4. 2. 3 Inclusive Economic Growth

Ensuring that tourism development creates opportunities for all segments of society, including marginalized groups, and contributes to reducing poverty and inequality. Sustainable tourism development will ensure that the tourism sector can continue to grow and provide long-term benefits for Beau Regency, both for current and future generations.

4. 3. Exponential Smoothing (MES) Method Analysis

Exponential Smoothing (MES) Method Analysis is a forecasting technique used to predict future values based on historical data. In this study, it is explained as follows :

$Y't + 1 = \alpha . Tt + (1-\alpha) . Y't$

Explanation :
Tt = demand data in period t
α = smoothing factor/constant
Y't+1 = forecast for period t

The following is the forecast calculation using the Exponential Smooting Method (MES), which can be seen in the following table :

Table 2. Exponential Smoothing (MES) Method Prediction in 4 Zones for the Short Term Period (January – December) in Urban Tourism Development of Beau Regency

No	Month	t	Y(t)	ln Y(t)	t . ln Y(t)	t²
1	January	1	959,288	13.77	13.77	1

		t	Y(t)				
2	February	2	848,601	13.65	27.30	4	
3	March	3	922,392	13.73	41.20	9	
4	April	4	885,497	13.69	54.77	16	
5	May	5	885,497	13.69	68.47	25	
6	June	6	701,018	13.46	80.76	36	
7	July	7	959,288	13.77	96.42	49	
8	August	8	922,392	13.73	109.88	64	
9	September	9	885,497	13.69	123.24	81	
10	October	10	996,184	13.81	128.12	100	
11	November	11	996,184	13.81	151.93	121	
12	December	12	996,184	13.81	165.74	144	
	Total	78	10,958,022	**164.64**	**1,071.6**	**650**	

Source : Processes by Research Team

The following is the Exponential Smoothing forecasting method with the equation :

Where, in the first period, the value of d' or Y' (t) is 0Ft-1 = d'
Or Y' (t) in the previous period or month
At-1 = d or Y(t) in the previous period or month

Table 3. Exponential Smoothing Forecasting Method Predictions for 4 Zones During
the Short Term (January – December) for Urban Tourism Development in Berau Regency (With $\alpha = 0.1$)

Month	t	Y(t) = d	Y'(t) = d'	(d-d')	d-d'	(d-d')$_2$	(d-d')$_2$/n	d-d'/d* 100
January	1	959.288	-	-	-	-	-	-
February	2	848.601	95.92 8,80	752.6 72,20	752.672,20	566.515.44 0.652, 84	47.209.6 2 0.054,40	88.70
March	3	922.392	84.86 0,10	837.5 31,90	837.53190	701.459.68 3.517, 61	58.454.9 7 3.626,47	90.80
April	4	885.497	92.23 9,20	793.2 57,80	793.257,80	629.257.93 7.260, 84	52.438.1 6 1.438,40	89.58
May	5	885.497	88.54 9,70	796.9 47,30	796.947,30	635.124.99 8.977, 29	52.927.0 8 3.248,11	-
June	6	701.018	88.54 9,70	612.4 68,30	612.468,30	375.117.41 8.504, 89	31.259.7 8 4.875,41	-

Month t	Y(t) = D	Y'(t) = d'	(d-d')	|d-d'|	(d-d')₂	(d-d')₂/n	|d- d'|/d* 100
July 7	959.288	70.101,80	889.186,20	889.186,20	790.652.098.270,44	65.887.674.855,87	-
August 8	922.392	95.928,80	826.463,20	826.463,20	68.3041.420.954,24	56.920.118.412,85	-
September 9	885.497	92.239,20	793.257,80	793.257,80	629.257.937.260,84	52.438.161.438,40	-
October 10	996.184	88.549,70	907.634,30	907.634,30	823.800.022.536,49	68.650.001.878,04	-
November 11	996.184	99.618,40	896.565,60	896.565,60	803.829.875.103,36	66.985.822.925,28	-
December 12	996.184	99.618,40	896.565,60	896.565,60	803.829.875.103,36	66.985.822.925,28	-
Total 78	10.958.022	996.183,80	9.002.550,20	9.002.550,20	7.441.886.708.142,20	620.157.225.678,52	-

Source : Processed by Research Team

The following is the Exponential Smoothing forecast calculation with $\alpha = 0.1$, as shown in the table below :
Exponential Smoothing Forecasting Method $\alpha = 0.2$
The following is the Exponential Smoothing forecast calculation with $\alpha = 0.2$, as shown in Table below :

Table 4. Exponential Smoothing Forecasting Method Predictions for 4 Zones During the Short Term for Urban Tourism Development in Berau Regency (With α = 0.2)

Month t	Y(t) = D	Y'(t) = d'	(d-d')	|d-d'|	(d-d')₂	(d-d')₂/n	|d- d'|/d* 100
January 1	959.288	-	-	-	-	-	-
February 2	848.601	191.857,60	656.743,40	656.743,40	431.311.893.443,56	35.942.657.786,96	77,39
March 3	922.392	323.206,28	599.185,72	599.185,72	359.023.527.051,92	29.918.627.254,33	64,96
April 4	885.497	443.043,42	442.453,58	442.453,58	195.765.166.915,19	16.313.763.909,60	49,97

May	5	885.497	531.534,14	353.962,86	353.962,86	125.289.706.825,72	10.440.808.902,14	39,97
June	6	701.018	602.326,71	98.691,29	98.691,29	9.739.970.453,42	811.664.204,45	14,08
July	7	959.288	622.064,97	337.223,03	337.223,03	113.719.372.577,48	9.476.614.381,46	35,15
August	8	922.392	689.509,58	232.882,42	232.882,42	54.234.223.747,94	4.519.518.645,66	25,25
September	9	885.497	736.086,06	149.410,94	149.410,94	22.323.628.927,04	1.860.302.410,59	16,87
October	10	996.184	765.968,25	230.215,75	230.215,75	52.999.292.389,25	4.416.607.699,10	23,11
November	11	996.184	812.011,40	184.172,60	184.172,60	33.919.547.129,12	2.826.628.927,43	18,49
December	12	996.184	848.845,92	147.338,08	147.338,08	21.708.510.162,63	1.809.042.513,55	14,79
Total	**78**	**10.958.022**	**6.566.454,32**	**343.2279,68**	**343.2279,68**	**1.420.034.839.623,26**	**118.336.236.635,27**	**380,03**

Source : Processed by Research Team

4. 4. Forecast Error Testing

This error calculation penalizes larger discrepancies more than smaller ones by using the squared calculation. MFE (Mean Forecast Error) calculates the error by summing all forecast errors over the period and dividing by the number of periods. MFE is very effective in determining whether a forecast result over a certain period is too high or too low. MAPE (Mean Absolute Percentage Error) represents the average absolute error over a certain period multiplied by 100% to obtain results in percentage form and is used when the size of the variable being forecasted significantly affects the accuracy of the forecast. The following is the error testing calculation for forecasting using the exponential method, exponential smoothing $\alpha = 0.1$, and exponential smoothing $\alpha = 0.2$, as shown in the table below:

Table 5. Forecasting Error Test Predictions for 4 Zones During the Short Term for Urban Tourism Development in Berau Regency

Forecasting Method	MAPE	MAD	MSE	MFE
Exponential	961	8.848.184,75	96.322.462.316.708,30	8.848.184,75
Exponential Smoothing α =0,1	52,52	474.088,67	263.754.545.864,38	474.088,67
Exponential Smoothing α =0,2	31,67	286.023,31	118.336.236.635,27	286.023,31

Source : Processed by Research Team

Based on the above calculations, it can be concluded that future needs, which include the requirements in terms of quantity, quality, time, and location necessary to meet the demand for goods or services (Economic Needs) in the four urban tourism development zones in Berau Regency, are predicted to generate an economic turnover of α = 0.1 amounting to + Rp. 620,157,225,678.52 (Maximum) and α = 0.2 amounting to + Rp. 118,336,236,635.27 (Minimum) per year, based on the capacity and production demand that has been carried out, with an error rate MSE (Mean Square Error) of Rp. 96,322,462, MFE (Mean Forecast Error) of Rp. 8,848,184, and MAD (Mean Absolute Deviation) of Rp. 8,848,184, which represents the average absolute error over a certain period.

5   Conclusion and Recommendations

5. 1 Conclusion

Tourism in Berau Regency, particularly in Tanjung Redeb District and its surroundings, has significant potential to be developed as a leading tourist destination in Indonesia. However, this potential must be optimized through planned and integrated efforts involving various stakeholders.

a.   An effective and sustainable tourism development strategy in Tanjung Redeb District can be formulated through a SWOT analysis that includes identifying the strengths, weaknesses, opportunities, and threats in the area. The initial step involves maximizing the potential of local natural and cultural resources while addressing weaknesses such as inadequate infrastructure and limited human resources. This strategy should also consider sustainable development principles, including environmental preservation, community empowerment, and inclusive economic development. The use of digital technology for promotion and destination management is also a crucial component of this strategy.

b.   The necessary steps to overcome infrastructure challenges include improving the quality of roads and transportation by enhancing accessibility through the construction and repair of roads connecting major tourist destinations, as well as improving public transportation facilities. Additionally, developing supporting facilities such as accommodations, restaurants, information centers, and healthcare facilities near tourist sites is essential. Optimizing information technology through the enhancement of digital infrastructure, such as high-speed internet and digital platforms for information and booking, is also required. Collaboration with the private sector is a strategic step by involving investors in the construction of necessary facilities, such as hotels and transportation, through Public-Private Partnership (PPP) schemes. Lastly, improving infrastructure management capacity

can be achieved by enhancing coordination among related agencies and developing spatial plans that support tourism development.

c. The integration of local community participation, businesses, and the government can be achieved through a collaborative approach involving all parties in the planning, implementation, and evaluation of tourism development programs. Steps that can be taken include establishing a Local Tourism Forum as a platform for dialogue and cooperation between the community, entrepreneurs, and the government; empowering the community by involving them in economic activities related to tourism, such as small business training, local craft development, and homestay provision; and forming partnerships with the business sector to encourage private sector investment in the development of tourism infrastructure and facilities while adhering to sustainability principles. Additionally, the government needs to issue inclusive policies that ensure the involvement of all parties in every stage of tourism development and provide incentives to businesses that participate in community empowerment.

d. The main potentials and weaknesses that influence the development of urban tourism in Tanjung Redeb include various aspects that need to be considered to optimize existing opportunities. The main potentials include the existence of rich natural and cultural destinations, a strategic location as a gateway to other tourist destinations in Berau, and the diversity of local cultures that can be a tourist attraction. However, there are also major weaknesses, such as inadequate infrastructure, ineffective destination promotion, and limited human resources experienced in the tourism sector. To optimize these opportunities, several steps can be taken, such as strengthening the destination through the development of thematic tour packages that combine nature, culture, and history; enhancing promotion through digital media and participation in tourism exhibitions; and increasing human resource capacity through training and certification in hospitality, tour guiding, and tourism management. Additionally, forming strategic partnerships for investment in tourism infrastructure and facilities is also an important step in addressing existing weaknesses.

e. Creating and promoting the tourism branding of Berau Regency that attracts tourists and enhances competitiveness with other tourist destinations can be done through several strategic steps. First, developing destination identity by formulating a strong and unique identity based on Berau's natural, cultural, and historical uniqueness, such as positioning Berau as the gateway to the marine paradise in the Derawan Islands. Second, a comprehensive promotion campaign by utilizing various digital platforms such as websites, social media, and mobile applications, with engaging content focused on tourist experiences. Third, collaboration with tourism influencers, bloggers, and media to expand promotional reach. Fourth, active participation in national and international tourism exhibitions to promote Berau as a top destination. Lastly, enhancing tourism products by developing high-quality attractions and supporting services to provide an impressive experience for tourists, thereby strengthening the destination's branding.

The research conducted shows that while there is a lot of tourism potential, there are also challenges that need to be addressed, including infrastructure limitations, human resource capacity, and marketing strategies. Sustainable tourism development, supported by strong institutions, quality human resources, and adequate infrastructure, will ensure the long-term success and sustainability of tourism in Berau Regency.

5. 2 Recommendations

Based on the research results, the following recommendations are proposed for the development of tourism in Beau Regency

a. The local government needs to formulate an integrated tourism development plan that aligns with the regency's regional development plan and national tourism policies.
b. Investment in infrastructure, especially roads, accommodations, and public facilities, must be a priority to support tourism development.
c. Implement training programs and community empowerment initiatives to enhance the capacity and participation of local communities in tourism development.
d. Develop effective destination branding and digital marketing strategies to increase the visibility and attractiveness of Berau Regency as a tourist destination.
e. Apply sustainable tourism principles in every aspect of development to ensure environmental conservation, socio-cultural preservation, and inclusive economic growth.
f. Build strong partnerships between the government, private sector, communities, and other stakeholders to support collaborative and coordinated tourism development efforts.

Reference

[1] Gunn, C. A. (2002). Tourism Planning: Basics, Concepts, Cases. Routledge.

[2] Burhalis, D. (2000). "Marketing the Competitive Destination of the Future." Tourism Management.

[3] Butler, R.W. (1999). "Sustainable Tourism: A State of the Art Review." Tourism Geographies.

[4] Kotler, P., Bowen, J., & Makens, J. (2002). Marketing for Hospitality and Tourism. Prentice Hall.

[5] Osterwalder, A., & Pigneur, Y. (2010). Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. Wiley.

[6] Murphy, P. E. (1985). Tourism: A Community Approach. Routledge.

[7] Harahap, Sofyan Syafri. 2013. "Critical Analysis of Financial Statements," Eleventh Edition, Rajawali Press, Jakarta.