

Prioritization of Development Strategies Based on the Existing Business Model Canvas at Beras Basah Island

Nur Indah sari¹, Erwiantono², Fitriyana², Juliani², Heru Susilo^{2*},

¹Master of Fisheries Science Student, Mulawarman University, Indonesia

²Master of Fisheries Science Lecturer, Mulawarman University, Indonesia

*Correspondence Author: herususilo@fpik.unmul.ac.id

Submitted: 24 May 2025

Revised: 21 September 2025

Accepted: 30 September 2025

ABSTRACT

Keywords:

Beras Basah Island; BMC; Strategic Priority; Bontang City

This study aims to determine the mapping of existing business strategies and to develop new business strategies into a business model canvas. The method used is descriptive qualitative. Data collection was carried out through observation, documentation and interviews. The collected data were analyzed using SWOT analysis and the results were described in nine elements of the Business Model Canvas. The results of the study indicate that the business strategy obtained from the mapping of the Business Model Canvas is quite good, because each element supports each other to increase income. Furthermore, several strategies need to be carried out to increase income and prioritize the concept of sustainable ecotourism such as publication and socialization of policies; determination of a management model based on the carrying capacity of the Area; integration between tourist destinations to create a tour package; collecting feedback to improve services; expanding market segmentation to foreign tourists; determining promotion costs, research and development; and optimizing opportunities through increasing MSMEs and the creative economy.

INTRODUCTION

The potential for environmental services and natural resources owned by Indonesia is very large. Therefore, an integrated and ecosystem-based development policy is needed to make the marine and fisheries industry the main driver of national development, one of which is by managing zoning in conservation areas (Arianto, 2020). Conservation areas are anticipated to fulfill various requirements, including ecological and recreational purposes (Shi *et al.*, 2019). One of the forms of tourism in conservation areas that is currently in demand is marine ecotourism (Setiawan *et al.*, 2021). The growth of marine tourism, especially in coastal areas, is closely related to Indonesia's economic growth (Faradilla, 2022). Based on Law No. 10/2009 on tourism, it defines tourism as an integral part of national development. Boukherouk & Ed-Dali (2020) added that nowadays tourists are more interested in finding preserved and clean places.

Ecotourism is responsible travel to natural places that preserve the environment, help local people live better, and teach people about the environment (Pratiwi & Herwin, 2022). Marine ecotourism is the sustainable use of nature by combining environmental services by focusing on coastal natural resources as the object (Koroy *et al.*, 2017). Marine Ecotourism has significant development, especially in developing tropical countries. While preserving resources, it is also done to improve the welfare of local communities (Lonn *et al.*, 2018). The increase of tourists in marine ecotourism will pose a serious risk to environmental integrity, requiring intensive management and monitoring measures to reduce the adverse effects of ecosystem pollution (Shi *et al.*, 2019).

Beras Basah island has high potential and is an attractive destination for developing marine ecotourism. Pulau Beras Basah has the best percentage of live coral reefs with abundant reef fish diversity, as well as diverse mangrove species (Prov. Kalimantan Timur, 2024). Thus, proper management is needed to optimize the economic and socio-cultural aspects while still paying attention to the ecological aspects. By using a business model, companies can maintain their existence by generating revenue (Warnaningtyas, 2020). One of the methods used is the canvas business method.

The business model canvas (BMC) approach can identify the essential elements of business development, and can formulate a solid strategy that ensures sustainability. BMC is one of the most frequently used models today because it is easy to promote to the general public and accessible for describing business models (Toro-Jarrín *et al.*, 2016). There are nine BMC element blocks analyzed, namely Customer Segments, Value Propositions, Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partners, Cost Structure. These nine components explain the justification for managerial innovation, execution, and value capture (Osterwalder & Pigneur, 2010). Thus, this research offers a marine ecotourism management model found on Beras Basah Island with a canvas business model approach. The nine components contained in BMC will be combined with Internal Factor Evaluation (IFE), External Factor Evaluation (EFE), SWOT and QSPM to determine the marine ecotourism strategy that can be accepted by the area manager.

LITERATURE REVIEW

1. Ecotourism

Ecotourism is a type of tourism that prioritizes the preservation of the natural and cultural environment, education, local community involvement and supervision (Adharani *et al.*, 2020; Maak *et al.*, 2022). Ecotourism is a type of tourist trip that aims to enjoy the nature and social culture of local communities through participation in active and passive activities with the aim of education, conservation, and economic empowerment of local communities (Dewi *et al.*, 2023). Natural

resource protection, local community involvement, non-destructive activities, and micro-enterprise development should all be part of ecotourism development planning (Asmin, 2018). This statement is reinforced by Angela (2023) which states that ecotourism development must actively involve local communities in the process because through their participation in ecotourism activities, the community can become partners in lake conservation and gain financial benefits from sustainable tourism activities.

2. Business Model Canvas

The canvas business model was first introduced by Alexander Osterwalder in his book entitled *Business Model Generation*. In his book, the canvas business model is divided into nine basic building blocks, the nine blocks cover four main areas in a business, namely customers, offerings, infrastructure, and financial sustainability. A business model can be interpreted as a framework for a strategy that is implemented through organizations, processes, and systems. The nine components are customer segments, value propositions, channels, customer relationships, key activities, key resources, key partnerships, cost structures, and revenue streams (Osterwalder & Pigneur, 2010).

3. SWOT Analysis

SWOT analysis is a classic tool for strategic planning that offers an easy way to find the best strategy (Fatimah, 2020). SWOT analysis can only be done after an honest and objective evaluation or self-recognition process (Ma'ruf, 2022). Mallick *et al.*, (2020) argue that SWOT can be used to analyze location advantages, services, and location interests, which involve various risk factors responsible for environmental threats. Salim & Siswanto (2019) explain that SWOT analysis is the process of systematically identifying various factors to create a strategy. This is based on how internal elements, such as strengths and weaknesses, interact with external elements, such as opportunities and threats.

4. QSPM Analysis

QSPM is an analytical tool used to decide which strategy to use based on previous strategic alternatives. QSPM calculations are based on input from internal and external matrix weights, as well as strategic alternatives at the matching stage. Conceptually, the purpose of this method is to determine the relative attractiveness of the various strategies that have been selected, to determine which strategy is best to implement. The purpose of QSPM analysis is to determine the comparative relevance of using different methods (Zulkarnain *et al.*, 2018). The advantage of using the QSPM matrix is that strategies can be examined simultaneously and sequentially so that the number of strategies that can be examined at once is also unlimited (Zulkarnaen & Sutopo, 2013). QSPM analysis allows numerical values for assessing the importance of factors and the relative attractiveness of strategies (David *et al.*, 2017).

METHOD

1. Time and Location

This research took place from March 2024 to March 2025 on Beras Basah Island, Bontang City, East Kalimantan. The research location can be seen in Figure 1.

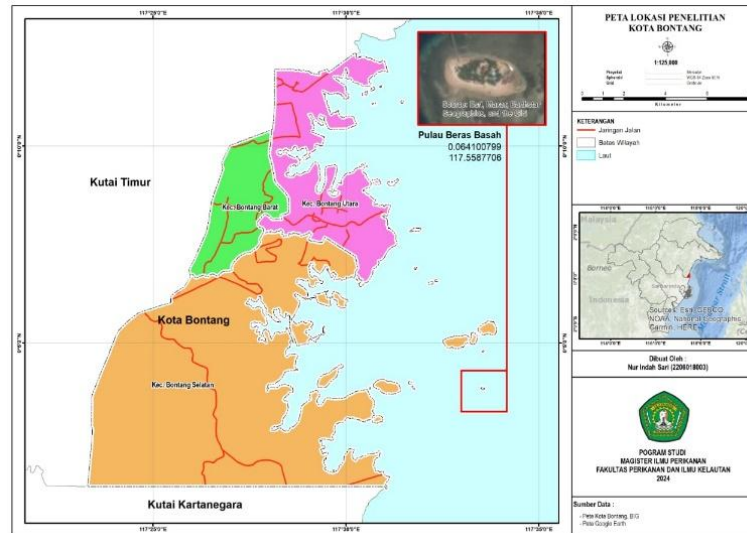


Figure 1. Map of Bontang City and Wet Rice Island
Source: Processed Data (2025)

2. Sampling Method

The method of sampling visitors in this study is accidental sampling. Therefore, the sampling method of visitor respondents in this study is to choose who is found at the research location who wants to recreate and enjoy the scenery at the Beras Basah Island Tourism Area in Bontang City which has been determined as many as 100 people. This research also uses purposive sampling method to determine key informants. Key respondents in this study amounted to 5 people with details can be seen in Table 1.

Table 1. Key Informants.

No.	Stakeholder	Sample Size
1.	Dinas Kelautan dan Perikanan Provinsi Kaltim (Head of Marine Space Management Division)	1
2.	Dinas Ketahanan Pangan, Pertanian dan Perikanan Kota Bontang (Head of Capture Fisheries and Aquaculture Division)	1
3.	Dinas Pariwisata Provinsi Kaltim (Head of Destination Development and Tourism Industry Division)	1
4.	Dinas Pemuda Olahraga dan Pariwisata Kota Bontang (Head of Tourism Division)	1
5.	Academics	1
Number of respondents		5

3. Analysis Method

Identification of the canvas business model of Bontang City's Beras Basah Island Marine Ecotourism using the Business Model Canvas (BMC) approach. This approach is used to better understand the mechanism of an ongoing business. In addition, it also acts as a basis for improving the existing business structure and operations in the management of tourism areas in the future (Bagindo et al., 2016). The initial stage of this research describes the existing canvas business model, which describes the current condition of the business model using qualitative descriptive analysis. Qualitative descriptive is a research method on natural object conditions based on postpositivism (a flow that wants to improve weaknesses) with researchers as the main tool (Sugiyono, 2019).

After that, through the existing canvas model, researchers will determine the IFAS and EFAS components of ecotourism, which will then conduct interviews with relevant key informants to provide IFAS, EFAS, SWOT and QSPM analysis scores. The ecotourism business development model on Kaniungan Besar Island is determined by integrating the BMC approach (Osterwalder & Pigneur, 2010), IFE and EFE matrix (Mallick et al., 2020), SWOT analysis and QSPM model.

RESULT AND DISCUSSION

A. Existing Canvas Model of Beras Basah Island

Beras Basah Island as a conservation area rich in potential species and ecosystems. This island needs to be appreciated and utilized as much as possible while still paying attention to sustainability aspects to support community welfare. In 2021, this water area was designated as a nature conservation area through the Decree of the Minister of Marine Affairs and Fisheries of the Republic of Indonesia Number 27 of 2021. The actual canvas business model of Beras Basah Island can be seen as follows:

1. Customer Segments

Customer segments are the main element in the canvas business model because they can be an inspiration for other elements. Setiawan *et al.*, (2021) stated that businesses must set target consumers served and can determine one or more consumer segments. Based on in-depth interviews and observation results, the customer segments in the Beras Basah Island ecotourism are dominated by domestic tourists with an age range of young adults, namely between 23 and 28 years and a diploma and bachelor's degree education level. The time needed for tourists to stay and enjoy Beras Basah Island is an average of 10 hours, namely around 07.00 WITA to 17.00 WITA.

2. Value Propositions

Value proposition is the core of the canvas business model approach, because it focuses on the product offerings made and comparing its offerings with competitors (Osterwalder & Pigneur, 2010). Value propositions are a combination

of goods and services that generate value for a particular customer group (Warnaningtyas, 2020). Based on the results of respondent interviews and direct observations, there are 6 (six) attractions of Beras Basah Island for tourists, namely natural beauty, close travel distance, strategic location, adequate facilities, underwater beauty and cool air. On the way to Beras Basah Island, tourists can enjoy the beauty of the sea of Bontang City and sometimes tourists can see dolphins from the boat.

3. Channels

Channels are media used by a business, group, or organization to offer a product or service value proposition to customers and build positive interactions with them (Osterwalder & Pigneur, 2010; Endratno *et al.*, (2023). Based on the results of interviews and direct observations, most tourists to Beras Basah Island get information from word of mouth or oral, which is 89% and the rest get information from social media. Photo or selfie culture is something that is often found in urban communities (Fan *et al.*, 2019). In general, tourists often share photos, videos and their experiences on social media (Oliveira *et al.*, 2020). Indirectly, this can be a promotional channel for Beras Basah Island ecotourism to potential tourists. Collaborating with community leaders and social media influencers can help improve the reputation of Marine ecotourism (Usman *et al.*, 2022).

4. Customer Relationships

This customer relationship is a very important factor because it affects overall satisfaction and the relationship between tourists and service providers (Wahyuni *et al.*, 2023); Setiawan *et al.*, 2021). The results of direct observations in the field, Beras Basah Island built relationships with tourists, namely not alone but established relationships by involving several communities such as transportation services, food and beverage business actors, tent rentals, snorkeling equipment rentals and tourism awareness groups (Pokdarwis). Indirectly, the relationships built by the community were interpersonal relationships or relationships between individuals that are built interdependently with each other and use consistent interaction patterns (Wisnuwardhani & Mashoedi, 2012). Personal relationships with tourists could be established through adjustment, involvement and response to tourist needs efficiently. Through direct observations in the field, the community was very responsive in providing services, accuracy in providing information about Beras Basah Island such as weather information, photo and video spots, and others. As well as, accuracy in meeting the needs and desires of tourists.

5. Revenue Streams

Revenue streams are the amount of money generated by an organization from each customer segment. Revenue streams are the lifeblood of a business or organization (Osterwalder & Pigneur, 2010). Revenue streams are income or revenue obtained by a business (Setiawan *et al.*, 2021). Revenue streams in Beras Basah Island Ecotourism were divided into two, namely from income by residents and from Bontang City PAD. Bontang City PAD is in the form of assistance for additional facilities, infrastructure and facilities. The results of interviews and direct observations in the field, the income obtained by residents around the ecotourism area because the businesses owned consist of several types of businesses, namely tent and tarpaulin rentals, clean water sales, tourist boat transportation services, culinary sales, tourist attraction services (snorkeling, diving and banana boats), rental of diving equipment, snorkeling equipment and other swimming equipment, sales of souvenirs and beach clothing; and tour guide services have tour packages on offer.

6. Key Resources

Key resources are the needs of a business or organization in offering products or services to the tourist segment and maintaining relationships with tourists to generate revenue (Osterwalder & Pigneur, 2010). Key Resources are important resources needed by a business to run its operations including human resources, technology, finance, and physical resources (Setiawan *et al.*, 2021). The main resources found on Beras Basah Island, Bontang City, are natural resources, human resources, and physical resources.

7. Key Activities

Key activities are important activities to develop value propositions that will support a business or organization (Wahyuni *et al.*, 2023). Key Activities are something that must be done and must be mastered by business actors to determine the business model (Setiawan *et al.*, 2021). Some of the key activities of Beras Basah Island Ecotourism were facility construction, community formation, tourism activities, tourist services, security and monitoring of Beras Basah Island and promotion of Beras Basah Island.

8. Key Partnerships

Key partnership is a party outside the business actor to be invited to collaborate in realizing the value proposition to help realize the right and profitable business model (Setiawan *et al.*, 2021). The main partners in the Beras Basah Island ecotourism that are the drivers of key activities are the Bontang City Government and the East Kalimantan Provincial Government which play a role in managing and developing the potential of Beras Basah Island, Bontang City; The Regional Disaster Management Agency (BPBD), the Bontang City TNI AL POS and the Bontang City Water Police Unit (Satpolairud) have played an active role in securing, handling and preventing ecotourism locations and tourists visiting Beras Basah Island; The

Bontang City Regional Tourism Promotion Agency (BPPD) which was inaugurated in 2023 which is expected to play a role in supporting tourism promotion activities in Bontang City; Tourism Awareness Group (POKDARWIS), tour guides, communities such as the Association of Travel Agents and the Indonesian Tour Guide Association (HPI) and the Beras Basah Island Tour Boat Association are partners who directly interact in serving tourists; Private companies, namely PT. Badak NGL has a lighthouse for guarding and becoming a characteristic of Beras Basah Island and adding to the beauty of the Island; Local business actors such as culinary businesses, diving equipment rentals, tent or tarpaulin rentals, and transportation services, swimming equipment rentals, souvenir and beach clothing businesses and clean water businesses; and Universities that collaborate with Beras Basah Island, namely Mulawarman University as a supporter of policy direction and management through scientific studies.

9. Cost Structure

Setiawan *et al.*, (2021) stated that the cost structure is the amount of costs budgeted by business actors to operate their business model.

Table 2. Business Model Canvas Ecotourism of Beras Basah Island.

Key Partnership	Key Activities	Value propositions	Customer Relationship	Customer Segments
<ul style="list-style-type: none"> Bontang City Government (Dinas Pariwisata dan Dinas ketahanan pangan, perikanan dan pertanian kota bontang) Kalimantan Timur Provincial Government BPBD PT. Badak NGL Regional Tourism Promotion Agency Mulawarman University Tour Guide Indonesian National Army Post SatPolairud Pokdarwis Local business actors Beras Basah Island Tourist Boat Association Local Community 	<ul style="list-style-type: none"> Facility development Community formation and development Tourism activities and services Security and monitoring Promotion 	<ul style="list-style-type: none"> Underwater panorama and white sand beaches High biodiversity Adequate facilities cool air 	<ul style="list-style-type: none"> Community Personal relationships 	<ul style="list-style-type: none"> Geographic segmentation, namely tourists who live in Bontang City Demographic segmentation, namely tourists aged 23-28 years, working as private employees, undergraduate education, unmarried, Muslim and Javanese Psychographic segmentation, namely relaxing, enjoying attractions with family and friends and an average visit duration of 10 hours.
Cost Structure <ul style="list-style-type: none"> Infrastructure procurement Ecotourism monitoring and security Capital and operational costs of local businesses 		Revenue Stream <ul style="list-style-type: none"> Local community income (income from food and beverage, rental of tourist facilities, transportation services). 		

Source: Processed Data (2025)

The cost structure incurred by Pulau Beras Basah, namely the procurement of facilities and infrastructure comes from the PAD of Bontang City through the Bontang City Youth, Sports and Tourism Office in the form of adding gazebos, building food courts, repairing piers and guard posts, operational costs and capital for culinary businesses, capital costs and maintenance for renting attraction equipment, Business capital and maintenance costs for renting tents or tarpaulins, ecotourism monitoring and security costs, and operational costs and maintenance of ecotourism transportation services.

Once the existing BMC is identified, each critical element in Table 1 is analyzed using a SWOT analysis to determine the internal and external factors presented in Table 3.

Table 3. SWOT Analysis of BMC Ecotourism of Beras Basah Island.

No.	BMC Elements	Strengths	Weaknesses	Opportunities	Threats
1.	<i>Customer Segment</i>	Certain subgroups have similar interests in the value proposition.	There is no special service to increase customer satisfaction and the desire to come back.	Tourists continue to increase from the main sub-segments and other sub-segments	There are competitors with the same target tourist segment
2.	<i>Value Proposition</i>	The biodiversity of small islands and underwater views that tourists can enjoy without special skills.	There is no policy regarding carrying capacity and Standard Operating Procedures (SOP) for safe, comfortable and environmentally friendly travel.	The rising trend of ecotourism	The level of visits and behavior does not take into account environmental carrying capacity
3.	<i>Channels</i>	Stable information dissemination through oral and social media combination	The use of social media in disseminating information is not yet optimal	Rapid development of technology and information	Promotion competition is getting faster
4.	<i>Customer Relationship</i>	The existence of tourist loyalty.	Not providing services based on specific tourist needs	Building relationships with content creators	Competitors offer more attractive experiences and benefits
5.	<i>Revenue Streams</i>	Income can be predicted through seasons (<i>low season</i> and <i>high season</i>)	Income has not optimized opportunities, such as environmental education and the creative economy	Source of income from entrance fees to the area and various attractions	Uncertain income
6.	<i>Key Resources</i>	Natural resource	Natural resources are vulnerable to	Ecotourism has high	Degradation of Natural

No.	BMC Elements	Strengths	Weaknesses	Opportunities	Threats
		potential and human resources	environmental pressures and human resource capacity is not yet competent.	competitiveness	Resources due to ecotourism activities
7.	<i>Key Activities</i>	Community-based ecotourism community	Enforcing environmental carrying capacity limits and behavioral guidelines for tourists	Ecotourism development is supported through policies	Ecotourism activities can exceed the carrying capacity of the environment
8.	<i>Key Partnership</i>	High community desire for involvement in the management of Beras Basah Island ecotourism	Community-based ecotourism institutions that have been established but are not yet active in their management	There is a desire to reactivate community-based ecotourism management.	There are several community groups that manage ecotourism but are not willing to cooperate in institutions.
9.	<i>Cost Structure</i>	Operational costs can be predicted	There has been no consistent application of business management principles	The use of technology can reduce promotional costs	Financing will increase in the future

Source: Data Processed (2025).

B. Internal Factors Analysis Summary

The results showed that the nine strength factors had weights between 0.013 and 0.089 and effectiveness scores between 3 and 4. For the strengths of small island biodiversity and underwater scenery that can be enjoyed by tourists without special skills; Stable information dissemination through oral and social media combinations; and Natural resource potential and Human resources had the highest final scores. Nine factors, furthermore, were related to weaknesses, which had weights of 0.015 and 0.092, and effectiveness scores between 1 and 2. The most significant weakness factor with the highest final score was that there was no special service that would make customers more satisfied and want to return; human resources were inadequate, and natural resources were vulnerable to environmental influences and there was no policy or standard operating procedure (SOP) for safe, comfortable, and environmentally friendly travel.

Table 4. Internal Factors Analysis Summary

No	Strenghths	Weight	Rating	Score
1	Certain subgroups have similar interests in the value proposition.	0,056	3,20	0,178
2	The biodiversity of small islands and underwater views that tourists can enjoy without special skills.	0,067	3,20	0,213
3	Stable information dissemination through oral and social media combination	0,089	3,20	0,284
4	There is a good relationship between ecotourism and tourists	0,067	3,00	0,200
5	Income can be predicted through seasons (low season and high season)	0,013	3,00	0,038
6	Natural resource potential and human resources	0,083	3,20	0,267
7	Community-based ecotourism community	0,050	3,00	0,150
8	The community's strong desire to participate in the management of Berbas Basah Island ecotourism	0,042	3,20	0,133
9	Operational costs can be predicted	0,035	3,40	0,118
Sub Total		0,500		1,581
No	Weaknesses	Weight	Rating	Score
1	There is no special service that will make customers more satisfied and want to come back.	0,092	1,40	0,128
2	There are no policies or standard operating procedures (SOPs) for safe, comfortable and environmentally friendly travel.	0,078	1,00	0,078
3	The use of social media in disseminating information is not yet optimal	0,054	1,20	0,065
4	Not providing services based on specific tourist needs	0,015	1,20	0,018
5	The suboptimal development of MSMEs and the creative economy.	0,035	1,20	0,042
6	Human resources are inadequate, and natural resources are vulnerable to environmental influences.	0,090	1,40	0,126
7	Enforcing environmental carrying capacity limits and behavioral guidelines for tourists	0,057	1,20	0,068
8	Community-based ecotourism institutions that have been established but are not yet active in their management	0,046	1,20	0,055
9	There has been no consistent application of business management principles	0,033	1,40	0,047
Sub Total		0,500		0,628
Total		1,000		2,209

Source: Data Processed (2025).

C. External Factors Analysis Summary

The results showed that the nine opportunity factors had weights between 0.041 and 0.088 and effectiveness scores between 3 and 4. For the opportunity, the high trend of ecotourism; ecotourism has high competitiveness; and ecotourism development is supported through policies had the highest final scores. Nine factors, furthermore, were related to threats, which had weights between 0.037 and 0.095, and effectiveness scores between 1 and 2. The most significant weakness factor with the highest final score was the level of visits and behavior that did not consider environmental carrying capacity; degradation of natural resources due to ecotourism activities and ecotourism activities can exceed environmental carrying capacity.

Table 5. External Factors Analysis Summary

No	Opportunities	Weight	Rating	Score
1	Tourists continue to increase from the main sub-segments and other sub-segments	0,053	3,60	0,191
2	The rising trend of ecotourism	0,088	3,00	0,264
3	Rapid development of technology and information	0,050	3,20	0,159
4	Building relationships with content creators	0,050	3,00	0,149
5	Source of income from area entrance fees and various attractions	0,034	3,60	0,123
6	Ecotourism has high competitiveness	0,060	3,40	0,204
7	Ecotourism development is supported through policies	0,066	3,40	0,223
8	There is a desire to reactivate community-based ecotourism management.	0,041	3,60	0,149
9	The use of technology can reduce promotional costs	0,058	3,40	0,198
Sub Total		0.500		1,661
No	Threats	Weight	Rating	Score
1	There are competitors with the same target tourist segment	0,037	1,20	0,044
2	The level of visits and behavior does not take into account environmental carrying capacity	0,095	1,40	0,134
3	Promotion competition is getting faster	0,052	1,20	0,062
4	Competitors offer more attractive experiences and benefits	0,044	1,20	0,052
5	Uncertain income	0,044	1,20	0,052
6	Degradation of Natural Resources due to ecotourism activities	0,073	1,40	0,102
7	Ecotourism activities can exceed the carrying capacity of the environment	0,066	1,20	0,079

8	There are several community groups that manage ecotourism but are not willing to cooperate in institutions.	0,048	1,40	0,067
9	Financing will increase in the future.	0,042	1,40	0,058
Sub Total		0,500		0,652
Total		1,000		2,312

Sumber: Data Processed (2025).

D. SWOT Analysis

After investigating the most important internal and external factors, the SWOT model was applied to formulate planning strategies by combining all features, including strengths and opportunities (SO), strengths and threats (ST), weaknesses and opportunities (WO), and weaknesses and threats (WT). The twelve alternative strategies formulated based on the SWOT analysis can be seen in Table 5.

Table 5. SWOT Analysis of Beras Basah Island Ecotourism Business Model.

Planning Strategies	
S-O	<ol style="list-style-type: none"> 1. Promotion of Ecotourism Potential through Social Media and Content Creator Promotion. 2. Maintaining Sustainability and Biodiversity with product, customer and stakeholder management. 3. Strengthening the Empowerment of Local Communities in Environmental Conservation and Ecotourism Management Efforts.
W-O	<ol style="list-style-type: none"> 1. Publication and Socialization of Conservation Policies and Activities in Beras Basah Island Ecotourism. 2. Improving Human Resources for Tourism Destination Management through Education and Training. 3. Collaboration between communities and government institutions such as local governments, tourism institutions, marine and fisheries institutions in efforts to optimize opportunities through increasing MSMEs and the creative economy.
S-T	<ol style="list-style-type: none"> 1. Increasing HR Capacity in Ecotourism Financial Management. 2. Addition of supporting facilities and infrastructure for ecotourism. 3. Socialization and Development of Community Institutions and Integrating Community Groups as Ecotourism Managers.
W-T	<ol style="list-style-type: none"> 1. Integration between tourist destinations in creating a tour package. 2. Evaluate the consequences of ecotourism development and establish rules. 3. Determination of Management Model Based on Regional Carrying Capacity

Source: Data Processed (2025)

E. QSPM Analysis

The total attractiveness score (TAS) determines the level of alternative strategies; the highest TAS value may be the most acceptable strategy. Table 6 shows that the most acceptable strategy is "improving human resources for tourism destination management through education and training" with a TAS value of 7.211;

followed by “collaboration between the community and government institutions such as local governments, tourism institutions, marine and fisheries institutions in an effort to optimize opportunities through increasing MSMEs and the creative economy” with a TAS value of 6.944; and “maintaining sustainability and biodiversity with product, customer and stakeholder management” with a TAS value of 6.676. Three other important strategies are “strengthening local community empowerment in environmental conservation efforts and ecotourism management” with a TAS value of 6.556; “publication and socialization of conservation policies and activities in Beras Basah Island Ecotourism” with a TAS value of 6.365; and establishing a management model based on regional carrying capacity with a TAS value of 6.184.

Table 6. QSPM Analysis of Beras Basah Island Ecotourism Business Model.

Kode	Alternatif Strategi	Nilai TAS
W-O 2	Improving Human Resources for Tourism Destination Management through Education and Training	7,211
W-O 3	Collaboration between communities and government institutions such as local governments, tourism institutions, marine and fisheries institutions in efforts to optimize opportunities through increasing MSMEs and the creative economy	6,944
S-O 2	Maintaining Sustainability and Biodiversity with product, customer and stakeholder management.	6,676
S-O 3	Strengthening the Empowerment of Local Communities in Environmental Conservation and Ecotourism Management Efforts.	6,556
W-O 1	Publication and Socialization of Conservation Policies and Activities in Beras Basah Island Ecotourism.	6,365
W-T 3	Determination of Management Model Based on Regional Carrying Capacity	6,184
W-T 2	Evaluate the consequences of ecotourism development and establish rules.	6,108
S-T 3	Socialization and Development of Community Institutions and Integrating Community Groups as Ecotourism Managers.	5,801
S-T 2	Addition of supporting facilities and infrastructure for ecotourism.	5,375
W-T 1	Integration between tourist destinations in creating a tour package.	5,366
S-O 1	Promotion of Ecotourism Potential through Social Media and Content Creator Promotion.	5,248
S-T 1	Increasing HR Capacity in Ecotourism Financial Management.	5,207

Source: Data Processed (2025).

F. Results of Canvas Business Model Development

The development of the canvas business model was carried out by considering every aspect of the old business model which was added and innovated according to the results of the SWOT and QSPM analysis which can be seen in Table 7.

After investigating the most important internal and external factors, the SWOT model was applied to formulate planning strategies by combining all features,

including strengths and opportunities (SO), strengths and threats (ST), weaknesses and opportunities (WO), and weaknesses and threats (WT). The twelve alternative strategies formulated based on the SWOT analysis can be seen in Table 5.

Table 7. Development of the Canvas Business Model for Beras Basah Island Ecotourism.

Key Partnership <ul style="list-style-type: none"> Bontang City Government (Dinas Pariwisata dan Dinas Kelautan dan Perikanan Bontang) Kalimantan Timur Provincial Government BPBD PT. Badak NGL Regional Tourism Promotion Agency Mulawarman University Tour Guide Indonesian National Army Post SatPolairud Pokdarwis Local business actors Beras Basah Island Tourist Boat Association Local Community 	Key Activities <ul style="list-style-type: none"> Facility development Community formation and development Tourism activities and services Security and monitoring Promotion <ul style="list-style-type: none"> Conservation Workshop and Seminar Workshop and Technical Training on Carrying Capacity-Based Management Conservation Ecotourism Program (Coral Transplantation) 	Value propositions <ul style="list-style-type: none"> Underwater panorama and white sand beaches High biodiversity Adequate facilities cool air <ul style="list-style-type: none"> Educational tourism. Cultural tourism. Culinary tourism. 	Customer Relationship <ul style="list-style-type: none"> Community Personal relationships <ul style="list-style-type: none"> Tourist satisfaction survey 	Customer Segments <ul style="list-style-type: none"> Geographic segmentation, namely tourists who live in Bontang City Demographic segmentation, namely tourists aged 23-28 years, working as private employees, undergraduate education, unmarried, Muslim and Javanese Psychographic segmentation, namely relaxing, enjoying attractions with family and friends and an average visit duration of 10 hours. <ul style="list-style-type: none"> Foreign tourists who like environmental activities/environmental activists. Foreign tourists who like snorkeling and diving.
Cost Structure <ul style="list-style-type: none"> Infrastructure procurement Ecotourism monitoring and security Capital and operational costs of local businesses <ul style="list-style-type: none"> E-commerce costs Application and web costs Promotion Costs Research and development costs Human resource service costs 	Key Resources <ul style="list-style-type: none"> Natural resources Human resources Physical resources <ul style="list-style-type: none"> Technology 		Channels <ul style="list-style-type: none"> Word of mouth Social Media <ul style="list-style-type: none"> Website E-commerce 	Revenue Stream <ul style="list-style-type: none"> Local community income (income from food and beverage, rental of tourist facilities, transportation services). <ul style="list-style-type: none"> Entrance ticket

Description: Black (Existing Business Model), Blue (Recommended Business Model Canvas).

Source: Data processed (2025)

CONCLUSION

This study combined the BMC and QSPM integration models through nine important elements of BMC and strengths, weaknesses, opportunities, and threats factors to improve sustainable ecotourism management in Beras Basah Island. The results of the study revealed that the main strength of Beras Basah Island for ecotourism was that certain subgroups have the same interest in the value proposition. In addition, the main weakness was that there is no special service that will make customers more satisfied and want to return and there is no policy or standard operating procedure (SOP) for safe, comfortable, and environmentally friendly travel. Furthermore, the management of Beras Basah Island ecotourism has opportunities, namely the number of tourists continues to increase due to the high trend of ecotourism, but on the other hand it faces threats in the form of competitors with the same target tourist segment and the level of visits and behavior that do not consider environmental carrying capacity. The best alternative strategy for the Beras Basah Island ecotourism business model is to improve human resources for managing tourist destinations through education and training; collaboration between communities and government institutions such as local governments, tourism institutions, marine and fisheries institutions in an effort to optimize

opportunities through increasing MSMEs and the creative economy; and maintaining sustainability and biodiversity with product, customer and stakeholder management.

REFERENCES

- Adharani, Y., Zamil, Y. S., Astriani, N., & Afifah, S. S. (2020). Penerapan Konsep Ekowisata Di Kecamatan Cihurip Kabupaten Garut Dalam Rangka Perlindungan Dan Pengelolaan Lingkungan. *Prosiding Penelitian Dan Pengabdian Kepada Masyarakat*, 7(1), 179. <https://doi.org/10.24198/jppm.v7i1.25235>
- Angela, V. F. (2023). Strategi Pengembangan Ekowisata dalam Mendukung Konservasi Alam Danau Tahai. *JIM: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah*, 8(3), 984–993. <http://jim.unsyiah.ac.id/sejarah/mm>
- Arianto, M. F. (2020). Potensi Wilayah Pesisir di Negara Indonesia. *Jurnal Geografi*, 20(20), 1–7.
- Asmin, F. (2018). Ekowisata dan Pembangunan Berkelanjutan (Dimulai dari Konsep Sederhana). *Padang: Asmin Publish*, February, 1–69. <https://books.google.co.id/books?id=JKzXXwAACAAJ>
- Bagindo, M. P., Sanim, B., & Saptono, T. (2016). Model Bisnis Ekowisata di Taman Nasional Laut Bunaken dengan Pendekatan Business Model Canvas. *MANAJEMEN IKM: Jurnal Manajemen Pengembangan Industri Kecil Menengah*, 11(1), 80–88. <https://doi.org/10.29244/mikm.11.1.80-88>
- Boukherouk, M., & Ed-Dali, R. (2020). Tourism, Local Communities and Environmental Governance: Analysis of the Souss Massa Nature Park Governance in Morocco. *Athens Journal of Tourism*, 6(4), 245–276 Tourism,. <https://doi.org/10.30958/ajt.7-1-3>
- David, M. E., David, F. R., & David, F. R. (2017). The quantitative strategic planning matrix: a new marketing tool. *Ournal of Strategic Marketing*, 25(4). <https://doi.org/https://doi.org/10.1080/0965254X.2016.1148763>
- Dewi, L., Pradini, G., Sartritama, m A., & Putra, R. A. (2023). PENGELOLAAN EKOWISATA DAN PENTINGNYA PENERAPAN CHSE Oleh. *J-Abdi Jurnal Pengabdian Kepada Masyarakat*, 3(3), 587–592.
- Endratno, H., Azizah, S. N., & Rusman, A. (2023). PENGEMBANGAN MODEL BISNIS CANVAS DESA WISATA KARANG SALAM, KEC. BATURRADEN, KAB. BANYUMAS. *Derivatif: Jurnal Manajemen*, 17(2), 216–226.
- Fan, D. X. ., Buhalis, D., & Lin, B. (2019). A Tourist Typology of Online and Face-to-Face Social Contact: Destination Immersion and Tourism Encapsulation/Decapsulation. *Annals of Tourism Research*, 78. <https://doi.org/https://doi.org/10.1016/j.annals.2019.102757>
- Faradilla, A. (2022). Pengembangan Ekowisata Bahari di Kepulauan Riau. *Jurnal Sains, Sosial Dan Humaniora (Jssh)*, 2(2), 12–15. <https://doi.org/10.52046/jssh.v2i2.1322>
- Fatimah, F. N. D. (2020). *Teknik Analisis SWOT: Pedoman Menyusun Strategi yang Efektif dan Efisien serta Cara Mengelola Kekuatan dan Ancaman*. Penerbit Anak Hebat Indonesia.
- Koroy, K., Yulianda, F., & Butet, N. A. (2017). Pengembangan Ekowisata Bahari Berbasis Sumberdaya Pulau-Pulau Kecil Di Pulau Sayafi Dan Liwo,

- Kabupaten Halmahera Tengah. *Jurnal Teknologi Perikanan Dan Kelautan*, 8(1), 1–17. <https://doi.org/10.24319/jtpk.8.1-17>
- Lonon, P., Mizoue, N., Ota, T., Kajisa, T., & Yoshida, S. (2018). Evaluating the Contribution of Community-based Ecotourism (CBET) to Household Income and Livelihood Changes: A Case Study of the Chambok CBET Program in Cambodia. *Ecological Economics*, 151, 62–69.
- Ma'ruf, A. (2022). *Analisis Strategi: Panduan Praktis SWOT, GE-McKinsey, Space, FFA, QSPM, AHP Menggunakan Microsoft Excel*. Penerbit ANDI.
- Maak, C. S., Muga, M. P. L., & Kiak, N. T. (2022). Strategi Pengembangan Ekowisata terhadap Ekonomi Lokal pada Desa Wisata Fatumnasi. *OECOMICUS Journal of Economics*, 6(2), 102–115. <https://doi.org/10.15642/oje.2022.6.2.102-115>
- Mallick, S. K., Rudra, S., & Samanta, R. (2020). Sustainable ecotourism development using SWOT and QSPM approach: A study on Rameswaram, Tamil Nadu. *International Journal of Geoheritage and Parks*, 8(3), 185–193. <https://doi.org/10.1016/j.ijgeop.2020.06.001>
- Oliveira, T., Araujo, B., & Tam, carlos. (2020). Why do people share their travel experiences on social media? *Tourism Management*, 78. <https://doi.org/https://doi.org/10.1016/j.tourman.2019.104041>
- Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation* (Tim Clark (ed.)). Wiley.
- Pratiwi, N., & Herwin, H. (2022). Konsep Ekowisata Pada Desain Kawasan Pantai Minanga. *JAMBURA Journal of Architecture*, 4(1), 25–29. <https://doi.org/10.37905/jjoa.v4i1.13270>
- RI, P. P. (2024). *Peraturan Presiden (Perpres) Nomor 32 Tahun 2024 Tentang Tanggung Jawab Perusahaan Platform Digital untuk Mendukung Jurnalisme Berkualitas*. <https://peraturan.bpk.go.id/Details/278037/perpres-no-32-tahun-2024>
- Salim, M. A., & Siswanto, A. B. (2019). *Analisis SWOT dengan Metode Kuesioner*. CV. Pilar Nusantara.
- Setiawan, J., Budiastuti, M. S., Gravitiani, E., & Setyono, P. (2021). Business model canvas (BMC) approach for tourism management strategy of the top selfie kragilan, Mt. Merbabu National Park. *Geojournal of Tourism and Geosites*, 35(2), 297–303. <https://doi.org/10.30892/GTG.35205-651>
- Shi, F., Weaver, D., Zhao, Y., Huang, M. F., Tang, C., & Liu, Y. (2019). Toward an Ecological Civilization: Mass comprehensive Ecotourism Indications Among Domestic Visitors to a Chinese Wetland Protected Area. *Tourism Management*, 70, 59–68. <https://doi.org/https://doi.org/10.1016/j.tourman.2018.07.011>
- Sugiyono. (2019). *Metodelogi Penelitian Kuantitatif dan Kualitatif Dan R&D*. Alfabeta.
- Toro-Jarrín, M. A., Ponce-Jaramillo, I. E., & Güemes-Castorena, D. (2016). Methodology for the of building process integration of Business Model Canvas and Technological Roadmap. *Technological Forecasting and Social Change*, 110(February), 213–225. <https://doi.org/10.1016/j.techfore.2016.01.009>
- Usman, R. T., Baga, L. M., & Sarma, M. (2022). Developing Strategies for an Integrated Ecotourism Business: Study Case in Olele Village, Bone Bolango Regency,

- Gorontalo, Indonesia. *Business Review and Case Studies*, 3(3), 215–225. <https://doi.org/10.17358/brcs.3.3.215>
- Wahyuni, S., Susilo, H., & Erwiantono, E. (2023). Priority Strategies for Sustainable Community-Based Ecotourism Management on Kaniungan Besar Island, Indonesia. *Sodality: Jurnal Sosiologi Pedesaan*, 10(3), 284–294. <https://doi.org/10.22500/10202243996>
- Warnaningtyas, H. (2020). Desain Bisnis Model Canvas (BMC) Pada Usaha Batik Kota Madiun. *Jurnal Ekomaks*, 9(2), 52–65. <https://ekomaks.unmermadiun.ac.id/index.php/ekomaks/article/view/62>
- Wisnuwardhani, D., & Mashoedi, S. F. (2012). *Hubungan Interpersonal*. Salemba Humanika.
- Zulkarnaen, H. O., & Sutopo. (2013). Analisis Strategi Pemasaran Pada UKM Makanan Ringan (Studi Penelitian UKM Snack Barokah Di Solo). *Semarang , Universitas Diponogoro*, 2(3), 1–13.
- Zulkarnain, A., Wahyuningtias, D., & Putranto, T. S. (2018). Analysis of IFE, EFE and QSPM matrix on business development strategy. *IOP Conf. Series: Earth and Environmental Science* 126, 8, 1–7. <https://doi.org/10.1088/1755-1315>