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RESEARCH ARTICLE

Strategy and Willingness to Pay for Tourists in a Coastal Tourism Development (A Case Study of Tourism Objects at Baruna Beach, Semarang)

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Abstract
This study aims to estimate the value of tourists' willingness to pay and formulate a strategy for developing Baruna Beach tourism. This study used a mixed method; the quantitative approach used the contingent valuation method and descriptive statistics, while the qualitative approach used SWOT analysis and qualitative descriptive analysis. This study uses primary data. Taken with a questionnaire of 110 tourists and semi-structured interviews conducted with key persons (guards and related agencies). The results showed that as many as 87% of respondents were willing to pay additional costs for developing Baruna tourism. SWOT analysis indicates strong potential for growth, particularly in infrastructure and digital promotion. Integrating WTP with SWOT supports an aggressive strategy focused on environmental conservation, improved facilities, and sustainable revenue generation. This study contributes theoretically by linking economic valuation with strategic tourism management and practically by guiding local authorities in optimizing entrance fees and coastal infrastructure. Findings suggest digital payment systems for WTP collection and further research on socio-cultural influences on WTP. Despite its insight, the study is limited by accidental sampling, excluding potential tourists' perspectives. Future research should explore diverse pricing models and broader market segmentation for sustainable coastal tourism.

Keywords: Baruna Beach, Semarang, SWOT, Tourism Development, Willingness to Pay

INTRODUCTION

One of the natural tourist attractions that can be developed is beach tourism. Beach tourism attractions in Semarang City include Mangkang Kulon Beach, Mangunharjo Beach, Marina Beach, Tanjung Mas Beach, Tirang Beach, and Baruna Beach [1]. Baruna Beach is a new tourist destination that tourists are starting to recognize and visit. Baruna Beach is unique compared to other beaches, namely that there is a vast expanse of savanna meadows [2].

Baruna's tourist attraction has a beautiful atmosphere and great views but has not been matched by adequate facilities and access. The inadequate condition of the road to the beach and the lack of supporting facilities such as parakeet yards and commercial areas are the main obstacles. In addition, the lack of effective waste management reduces the quality of the beach environment, thereby reducing the attraction for visitors. So that this potential needs to be developed so that later it can become beach tourism that can be visited by the community and become a source of income for the City of Semarang. Thus, it is necessary to develop Baruna Beach tourism. The development of Baruna Beach tourism is an effort to improve the management of tourism competitiveness data to support national development programs [3].

Tourism development is one way to increase regional development. The best development

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and utilization of tourism will increase regional income, create jobs, and increase economic growth [4]. Studies on sustainable tourism development strategies in various places have been conducted [5]. However, tourists, despite having a positive awareness and attitude towards environmental sustainability, often have non-specific knowledge and inconsistent pro-environmental behavior. Therefore, an effective outreach education program is needed to increase tourists' awareness and involvement in conservation. In the context of Baruna Beach, implementing sustainable tourism practices and more intensive education efforts are important steps to balance economic development and environmental sustainability [6–11].

The Willingness to Pay (WTP) analysis has been used in various studies to assess tourism development, especially in the context of the economy, environment, and tourist behavior [12–15]. Although sustainable tourism strategies have been implemented in various regions, including national parks and coastal areas with methods such as SWOT (Strength, Weakness, Opportunities, Threats) analysis [16–19], the integration of WTP into such strategic frameworks is still limited, so a more comprehensive model is needed for effective planning. Factors influencing the development of coastal tourism, such as investment, administrative coordination, capacity detection, and environmental planning, have been studied, but research has rarely explored how WTP-based economic aspects can support the competitiveness of tourist destinations [20,21]. In addition, empirical studies focus more on the impact of tourism on the environment and the economic benefits of tourist attractions, while the integration of WTP in economic management strategies has not received adequate attention [22,23]. In terms of practice, tourism managers still face gaps in the implementation of WTP due to the lack of data-driven models that can be used as strategic planning tools [24]. Therefore, it is necessary to develop a framework that effectively integrates WTP into tourism development strategies to increase the competitiveness and sustainability of tourist destinations. To complement the existing research, this study integrates WTP analysis with SWOT-based strategies to formulate a more comprehensive strategy for developing Baruna Beach tourism.

This study aims to estimate the value of tourists' willingness to pay and formulate a strategy for developing Baruna Beach tourism. The Contingent Valuation Method (CVM) will analyze willingness to pay. This method increases the reliability of non-use value estimation results or resources that cannot be quantified, such as beaches [25]. CVM builds a hypothetical market using a survey questionnaire to construct scenarios allowing respondents to express their willingness to pay (WTP) for environmental quality improvements [26]. The location of this research was chosen because Baruna Beach is one of the black sand beaches in the north that has not been appropriately managed. Access, facilities, and attractions have not been packed to the fullest. For example, a muddy road when it rains makes it difficult for visitors to get to the location. So that this potential needs to be developed so that later it can become beach tourism that can be visited by the community and become a source of income for the City of Semarang.

MATERIAL AND METHOD

Location

This research was conducted in the northern coastal area of Central Java, specifically at Baruna Beach, located in Mas Harbor, Tanjung Village, Bringin District, Semarang City. The location was chosen due to its potential as a new tourism area that aligns with the vision outlined in Regional Regulation No. 5 of 2015, which aims to develop Semarang City as a major tourism attraction. Additionally, Baruna Beach is easily accessible from the city center, making it a strategic site for tourism development.

Data Collection

This study utilized both primary and secondary data. Primary data were collected through semi-structured interviews and questionnaire surveys involving key person prelated who were considered capable of contributing to analyzing the development of Baruna Beach tourism. The key person in this study were baruna beach tourism guards, traders in baruna beach tourism, and representative of fishing groups. Tourists visiting baruna beach were also suveyed to undestand their preferences and economic valuation of the tourism development.

The study employed accidental sampling [27], where respondents were randomly selected among visitors present at baruna beach during the research period. A total of 110 respondents participated in the study, with data collection

taking place in November 2022. While this method provides quick insight, it also had limitations. The selection bias inherent in accidental sampling meant that only individuals present at the site during the study period were included, potentially excluding visitors at the different times. Furthermore, they study did not capture perspective from potential tourists who had not yet visited Baruna beach. Limiting its ability to represent broader tourist interest and demand.

Data Processing and Analysis

This study employed mixed method approach [28], integrating both qualitative and quantitative analysis to examine ecotourism development at baruna beach. The qualitative analysis utilized a SWOT analysis based on the EFAS-IFAS framework [29,30], where the Internal Factor Analysis Summary (IFAS) assessed strengths and weaknesses within the tourism sector, while the External Factor Analysis Summary (EFAS) evaluated external opportunities and threats affecting tourism growth. The SWOT analysis and the IFAS-EFAS matrix are used in this study to clarify the current conditions and helped formulate a strategic development plan for baruna beach.

The quantitative analysis applied descriptive statistics and the Contingent Valuation Method (CVM) to measure tourists Willingness to Pay (WTP) for tourism development. The estimates generated based on the WTP can be used to develop optimal pricing strategies [31]. Respondent were asked whether they would pay an additional fee to support sustainable tourism facilities.

The CVM was selected over the Discrete Choice Experiment (CDE) due to its cost-effectiveness, direct questioning format, and suitability for studies with limited sample sizes [32,33]. WTP estimated were analysed to derive optimal pricing strategies for tourism services [14]. To ensure the reliability and validity of the questionnaire, a pe-trest was conducted with 15 respondents to assess clarity, structure, and potential biases. The questionnaire was refined based on feedback [34,35].

RESULT AND DISCUSSION

Socio-economic Characteristics

Baruna Beach is a relatively new tourist attraction in Semarang. Even though it is classified as a new tour, Baruna Beach is already busy with tourists from various regions. With its appeal in the form of an atmosphere that is still beautiful and has historical value during the Japanese colonial period, Baruna Beach is visited by many young tourists who like beach attractions. This is proven based on the results of research where the majority of tourists visiting Baruna Beach are aged 2 to 29 years, and these tourists are students who are currently studying at tertiary institutions or, in other words, with the last level of secondary school education. The characteristics of the respondents in this study are presented in more detail in Table 1.

Based on Table 1, the findings indicate that tourists' willingness to pay (WTP) is influenced by several socio-economic factors. In this study, the majority of visitors are young (aged 20–29 years), mostly students at tertiary institutions. This aligns with the research by [36], which suggests that younger generations tend to have higher environmental awareness and are more willing to contribute to conservation efforts in tourism. Additionally, younger tourists are generally more receptive to the concept of sustainable tourism. However, this contrasts with the findings of Martínez-Espiñeira and [37], who reported that older tourists exhibit a higher WTP due to greater financial stability.

Furthermore, education level plays a significant role in WTP. Respondents with higher education levels (at least a bachelor's degree or diploma) demonstrated a greater willingness to pay compared to those with only secondary education. This is supported by studies conducted by [38], which state that individuals with higher education levels tend to have a better understanding of the importance of environmental conservation and the long-term benefits of sustainable tourism.

Income level also significantly influences WTP. Respondents earning above IDR 3,000,000 per month exhibited a stronger willingness to pay higher entrance fees. This finding is consistent with global studies that highlight how financial capability enables tourists to contribute more to sustainable tourism initiatives [39]. Other research also suggests that higher-income tourists have greater purchasing power and are more capable of allocating funds to support conservation efforts and tourism destination management [40,41].

Willingness to Pay Tourists for Baruna Beach Attractions

This research was conducted on 110 respondents who visited the Baruna Beach

tourist attraction. Most respondents in this study were young people still in school, with an average age of 23 years. In line with research by [38], generation positively affects tourists' willingness to pay (WTP). This matter shows that younger people tend to be willing to pay to support the management of beach tourism. Likewise, the education level positively affects the willingness to pay for beach tourism. Education positively affects one's maturity and increased knowledge, impacting positive thinking and environmental awareness [38]. In this study, respondents with a high school education are pursuing undergraduate school and have not graduated. This result is in line with a study previously which was done by [21,42–44].

Table 1. Socio-Demographic Characteristics (n=110)

Characteristics of Respondents		Frequency	Percentage (%)	Information
Gender	Man	47	43	
	Woman	63	57	
Place of Origin	Semarang	65	59	
	Outside Semarang	45	41	
Age	< 20	26	24	Min = 18 Max = 52 Mean = 22.89
	20 – 29	74	67	
	30 – 39	6	5	
	40 – 49	2	2	
	> 50	2	2	
Marital status	Not married yet	94	85	
	Married	16	15	
Education	Secondary school*	81	74	
	College**	29	26	
Revenue (IDR)	< 1.000.000	22	20	Min = 300,000 Max = 8,000,000 Mean = 2,136,546
	1,000,000 – 2,999,000	62	56	
	3,000,000 – 4,999,000	26	24	
	>5,000,000			

Note: *Junior high school and Senior high school
**Bachelor/master/diploma

The analysis results of tourists' willingness to pay show that most tourists are willing to pay to support the development of Baruna Beach tourism. This willingness to pay tourists helps sustain beach-related benefits [45–47]. The WTP given to each person may vary. This is usually caused by differences in individual socio-economic characteristics such as age, gender, income, and education [38]. Several studies indicate that younger, more educated individuals with higher disposable income are more willing to pay for beach conservation and development [48–51]. On the other hand, [42] study found that older respondents had a positive relationship with WTP responses. It has also been shown that several factors, such as gender and nationality, have no significant effect on WTP [21,48,52]. However, there are some important differences. In developed countries, WTP is often driven more by environmental awareness than income, For example, in Western countries, donation-based and ecological tax models are generally accepted, whereas in developing regions, WTP is more influenced by direct economic benefits [53,54]. These differences highlight the need to adapt pricing strategies to align with visitor demographics and expectations while considering the local socio-economic context when implementing tourism pricing policies.

Figure 2 shows the percentage of tourists willing to pay more for Baruna Beach tourism development. As many as 87 per cent or 96 tourists said they would pay more. This is because the entrance ticket that is currently valid is still very affordable, and they think that with the development of tourism, tourists can participate so that future generations can enjoy the beauty of the beach. Currently, the valid entrance ticket for the Baruna Beach tourist attraction is Rp. 3,000 on weekdays and Rp. 5,000 on weekends. This entry fee collection originates from wanting tourists responsible for environmental damage to contribute to maintenance through the price of goods and services [38]. This is an effective public mechanism for providing direct funding for conservation through tourism.

Tourists with positive responses or those willing to pay state that this is because Baruna Beach tourism still needs to be developed. The lack of tourism development and management

makes the facilities available there very limited. So that by paying more tourists for the facilities and management of tourist objects can be more complete and even better. The positive response given by tourists is in line with previous research in protected areas in Thailand [38] and Ethiopia [44], natural tourism areas in India [42], and WTP for other research, such as improving air quality in China [49], and the construction of a bridge to the Curonian Spit protected area in Lithuania [55]. In the current study, most tourists are willing to pay an entry fee to support local authorities in preventing and mitigating marine debris on the island for the public benefit.

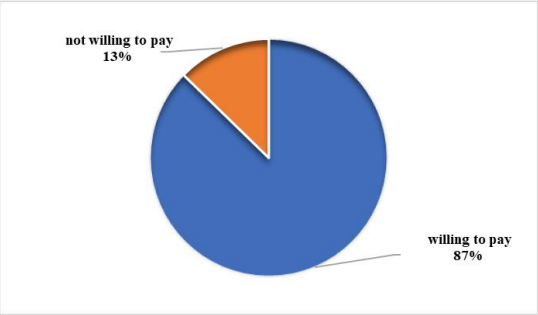


Figure 2. Willingness to pay tourists

A total of 14 other tourists in the study responded negatively or stated his unpreparedness to pay more because of the price that has been provided and the existing facilities are enough. They also consider that the development of Baruna Beach tourism is the government's responsibility. In line with research [38], the results show that some tourists are concerned about the fairness of access to natural attractions because they are public goods and the burden of environmental restoration. After all, they are already taxpayers in the system. In addition, some tourists worry that paying these fees will reduce their expenses [56].

The amount of willingness to pay is offered by giving the value of the offer to the respondent. The value provided is IDR 10,000, IDR 15,0000, and IDR 20,000. This pricing is based on scenarios that have previously been prepared and have been added to the current ticket prices. Based on the results of completing the questionnaire, it can be seen that the willingness to pay tourists to spend a higher amount of money varies quite a lot.

The scenarios offered for Baruna Beach tourism development include supporting facilities such as toilets, prayer rooms, photo spots, children's playgrounds, road signs, ticket booths, and a clean beach program to preserve the coastal area. As stated in research by [57], the management of facilities with environmental conservation and protection and natural resource-based ecosystem activities in attractive areas influences the success of tourism.

Table 2. Distribution of willingness to pay

WTP (Rp)	Number of Resp.	Percentage (%)	WTP x Amount Respondents (Rp)
10,000	37	34	370,000
15,000	20	18	300,000
20,000	39	35	78,0000
Total	96	87	1,450,000
EWTP			15,104

Calculation distribution The WTP value or willingness to pay in Table 2 results in an average WTP value of IDR 15,104, which can then be rounded up to IDR 15,000. The average WTP value can be used as a reference for tourism managers in determining the price of entrance tickets to the Baruna Beach tourist attraction. Collecting tourist entrance fees is necessary to generate adequate public funds for the state or local government to maintain and manage the environment in coastal tourism areas [38]. Many previous studies support the idea of entry fees, as they tend to be a good source of income in areas with high levels of tourism, especially in developing countries [21], [42], [58], [59]. The acquisition of these funds is not only a substitute for public funds, thereby reducing government costs for the conservation of natural resources in tourist areas, but also as a regulatory tool to control the number of tourists. [59]

According to economic theory, the higher the price of a product or service, the fewer people are willing to pay. If the number of visitors to the attraction decreases after being charged a fee, this hinders the attraction's revenue. However, several studies have shown that launching small payments or increasing existing costs by a small amount is not a significant barrier [48].

Table 3. Total WTP of Baruna Beach tourists

EWTP (a)	Total Population (b)	TWTP/Year (a x b)
Rp 15,000	10,950	Rp 273,750,000

Based on the TWTP calculation results in Table 3, a value of IDR 273,750,000 per year is obtained. Tourism managers can use the total value of WTP to develop and maintain various facilities or resources at the Baruna Beach tourism object. In research [60] the production of WTP visitors generates a budget that can be used

for beach cleanliness and the preservation of natural resources. This aims to increase tourist satisfaction so that they return to the Baruna Beach tourist attraction. Based on a study conducted by [61], tourist satisfaction represents their perception of the extent to which tourist needs are met. In this case, it can be facilities and infrastructure or tourism facilities.

Table 4. SWOT analysis matrix

EFAS / FAS	Strength	Weakness
Opportunity	1. Online/social media facilities at this time are one of the right and fast ways to market a product, including tourism products. Descriptions in interesting language and beautiful photographs can attract readers to visit the attractions. 2. Information about the existence of the Tranquility of the Soul Monument can attract tourists to visit, learn about history, and perpetuate it by taking pictures at Baruna Beach, Semarang. Provides photo spots that support the grasslands and around the beach to attract tourists to visit Baruna Beach. 3. Provides rental of a set of tools for fishing on Baruna Beach at an affordable price. 4. Provides tire rental for swimming at an affordable price.	1. Build facilities and infrastructure to support tourism objects so that visitors are comfortable. Completeness and cleanliness of the infrastructure 2. become one of the considerations for tourists to choose a tourist object to visit. Supporting facilities and infrastructure can be public toilets, trash cans around the beach, security facilities, and parking lots. 3. Improve road access to Baruna Beach. 4. Build a simple gazebo facility from bamboo with a roof from thatch around the beach. With this gazebo, tourists can take shelter and can make tourists feel at home for a long enjoying this tourist attraction. 5. Provide land for traders selling around the beach. 6. Build a small prayer room for the worship of Muslims. 7. Subscribe to PDAM to provide clean water around the beach and for public toilets.
Threat	1. All parties must be aware of protecting and maintaining the environment. This is very necessary for the sustainability of tourist destinations. People who fish must also maintain cleanliness by not littering in the sea. 2. There needs to be a special team that constantly monitors the cleanliness and safety of tourist objects (Coast Guard). Suppose the level of cleanliness and safety of the tourist attraction has declined. In that case, the team needs to take specific actions to restore the cleanliness and security of the tourist attraction.	1. All parties must be aware of maintaining and preserving the environment. Awareness of maintaining and protecting the environment is crucial for the sustainability of tourist attractions, such as disposing of trash in the provided bins and maintaining the cleanliness of public toilets. 2. Holding beach cleaning activities monthly with all the community and visitors at Baruna Beach, Semarang. 3. Making warning boards for visitors to maintain cleanliness, environmental sustainability, and security for visitors. Warning boards must be posted in places where tourists can easily see them. 4. Improve and continue to improve the construction of suitable infrastructure to increase the safety and comfort of visitors reaching the location. Making improvements to infrastructure can make tourists feel comfortable and safe when visiting these attractions. 5. For people with livestock there, it is best to re-process their waste before it is disposed of so that cleanliness and sustainability around Baruna Beach are always maintained.

The WTP findings provide strategic insights for the development of Baruna Beach tourism. The high WTP among young and educated tourists presents an opportunity to generate revenue through infrastructure improvements and sustainability initiatives. Tourists have expressed a strong willingness to pay more for enhanced facilities, including better sanitation, designated photo spots, children's playgrounds, and a dedicated beach cleanliness program. This supports an aggressive development strategy that prioritizes infrastructure upgrades while maintaining environmental sustainability.

By leveraging these insights, local authorities can design structured entrance fees that balance affordability with tourism development, ensuring Baruna Beach remains financially sustainable. This approach suggests that Baruna Beach should implement an aggressive tourism development model by reinvesting revenue generated from

WTP into facility expansion, visitor experience enhancements, and coastal conservation projects. In doing so, Baruna Beach can achieve long-term sustainability while enhancing its appeal as a premier coastal destination.

Table 5. Baruna beach tourism internal factor

	Strategic Factor	Weight	Rank	Score
	Strengths:			
S1	There is a historical monument, namely the Peace of the Soul Monument.	0.11	3	0.33
S2	There is a beautiful expanse of grassland.	0.78	1	0.78
S3	The location is quite strategic (adjacent to Marina Beach and Tanjung Emas Harbor).	0.34	2	0.68
S4	Calm waves.	0.22	4	0.88
S5	Being a fishing spot for many people.	0.54	3	1.62
	Amount			4.29
	Weaknesses:			
W1	There is no responsible manager yet.	0.15	3	0.45
W2	Lots of trash is scattered around.	0.08	3	0.24
W3	Lots of livestock waste (because many residents have built cages and ponds around Baruna Beach).	0.09	3	0.27
W4	Lack of supporting facilities for tourism objects (public toilets, provision of trash bins, security facilities, parking lots, etc.).	0.28	1	0.28
W5	Access that is still difficult to get to the beach (in the form of muddy soil and lots of puddles after it rains, lots of plants that grow wild and tall around the road to the beach).	0.28	2	0.56
W6	During the day, the weather is scorching, and there are not many trees or shelters like gazebos.	0.07	3	0.21
W7	There are no stalls/traders who provide and sell goods that visitors need.	0.21	2	0.42
W8	There are no places of worship (mushola).	0.12	3	0.36
W9	There is no provision for clean water around Baruna Beach.	0.22	3	0.66
	Amount			**3.45**

Note: *Score: 0.01 – 0.10 = not important; 0.11 – 0.20 = important, 0.21 – 0.30 = very important

Table 6. Baruna beach tourism external factor

	Strategic Factor	Weight	Rank	Score
	Opportunities:			
O1	There is local community support for developing the Baruna Beach tourist attraction in Semarang.	0.33	2	0.66
O2	Promotion through online/social media is effortless to attract the public's attention to visit Baruna Beach, Semarang.	0.57	2	1.14
O3	The number of tourists to the Baruna Beach tourist attraction will increase.	0.45	2	0.9
	Amount			2.7
	Threats:			
T1	The decreasing carrying capacity of the environment is due to the large number of tourists who pay less attention to the cleanliness and sustainability of the beach.	0.12	2	0.24
T2	Disaster threats such as abrasion, strong winds, and big waves.	0.1	3	0.3
T3	Threats to tourist safety.	0.12	3	0.36
	Amount			0.9

Note: *Score: 0.01 – 0.10 = not important; 0.11 – 0.20 = important, 0.21 – 0.30 = very important

Baruna Beach Tourism Development Strategy

Baruna Beach development strategy was formulated using SWOT qualitative analysis (strength, weakness, opportunity, threat). The steps taken include determining internal and external factors, compiling the SWOT strategy matrix, then scoring using the IFAS and EFAS matrices and plotting on the SWOT quadrant graph to choose the type of Strategy used based on the position of the plot points [29]. based on the results of field observations and in-depth interviews with beach managers and visitors to Baruna Beach, some information was obtained regarding the strengths, weaknesses, opportunities, and threats of Baruna Beach, Semarang. Following Table 4 is a list or list of strategies for the development of Baruna Beach tourism, which will then be focused on internal and external factors that are important in this development.

A special strategy for Panta Baruna tourism development is carried out by quantifying the factors identified through SWOT analysis (see Table 3) using the EFAS-IFAS Factor Analysis by giving weights and ratings to each variable for each factor. This research provides a specific strategy for the development of Baruna beach tourism. To arrive at a particular strategy for developing Baruna Beach tourism, the factors identified in Table 4 will be quantified using the EFAS-IFAS analysis by giving weights and ratings to each variable in each factor. So that this research will be able to find specific strategies for the development of Baruna Beach tourism.

The first step in the EFAS-IFAS analysis is to assign specific weights to each variable of the four predetermined factors, where the weights assigned to each factor must total 1.00 [29]. This was done based on the results obtained from in-depth interviews and filling out questionnaires from respondents and related stakeholders who are trusted and have knowledge about the development of Baruna Beach tourism. The summary of the EFAS-IFAS analysis is shown in the internal and external factors tables in Table 5 and Table 6. Table 5 is the internal factors derived from IFAS: strengths and weaknesses. While Table 6 is an external factor originating from EFAS, namely strengths, and weaknesses.

The IFAS value is the X axis on the SWOT analysis quadrant graph, so to get it by subtracting the total value of strengths and weaknesses, namely 4.29 – 3.45 = 0.84. The EFAS value is the Y axis on the SWOT analysis quadrant graph, so to get it by subtracting the total value of opportunities and threats, namely 2.7 – 0.9 = 1.8. Based on the IFAS-EFAS calculation, it can be obtained that the location of the priority strategy quadrant is quadrant 1 or Aggressive Strategy. In this position, the Strategy used is to maximize strengths and take advantage of existing opportunities which will be displayed on the SWOT diagram.

From the results of the IFAS-EFAS Matrix analysis, the next step is to analyze the numbers using a SWOT analysis diagram to get an overview of the most suitable Strategy to obtain possible strategies among the four factors. The IFAS value is determined by subtracting the total weight of the weakness and strength factors. In contrast, the EFAS value is determined by subtracting the total weight of the threat factor and the opportunity factors' total weight [29]. So that the IFAS value is obtained, namely 4.29 – 3.45 = 0.84, and the EFAS value is 2.7 – 0.9 = 1.8. Furthermore, the IFAS and EFAS values are placed on a caster chart, where the X axis shows IFAS and the Y axis shows EFAS. The best results will be shown in quadrant I (aggressive Strategy) because the effects of IFAS and EFAS mean a positive value in this quadrant. Figure 3 below shows the IFAS and EFAS diagrams.

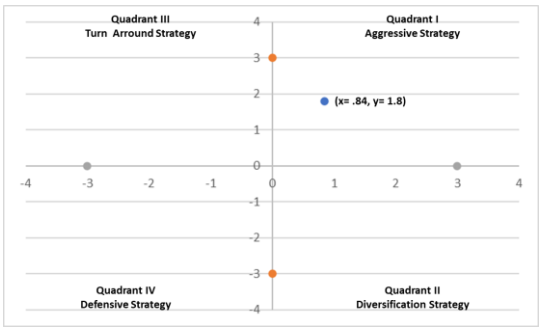


Figure 3. SWOT analysis diagram of the Baruna Beach tourism development strategy

The SWOT analysis diagram in Figure 3 shows a positive value, following the Strategy in quadrant I, where Baruna beach tourism managers are advised to use an aggressive strategy to develop Baruna beach tourism. Aggressive Strategy involves using internal strengths to take advantage of external opportunities. The aggressive strategy involves using internal forces to take advantage of external opportunities. Baruna Beach tour managers can take advantage of this opportunity in several ways. First, the manager and the surrounding community can synergize to add public and supporting facilities such as trash cans, toilets, prayer rooms, photo spots, and lounge chairs or gazebos along the beach. The availability of public facilities and supporting facilities at tourist attractions can form a pleasant experience for visitors and formation of visitor satisfaction [62]. Facilities provided in tourist areas will shape tourists' perceptions of the tour. The local community can also use this opportunity by opening a snack or souvenir business by setting up food stalls around the beach. As in [63] research, the tourism sector can encourage economic growth and provide jobs and income for the surrounding community.

Second, tourism managers can use social media to promote the beauty of Baruna Beach. Managers can take advantage of the increasing number of social media users to continue encouraging Baruna Beach tourism so that more social media users see it, and the number of visits can also increase. Travelers can share travel-

related information, personal experiences, and opinions through text, photo, and video comments on social media during or after the trip, thanks to the development of Internet technology [64], [65]. Furthermore, the Baruna Beach tour manager can create or provide a particular area for tourists who want to fish. Managers and the community can also utilize this by opening a fishing gear rental business so that both the community and tourists produce mutualism symbiosis. With the development of Baruna Beach tourism, the community's welfare, especially in terms of economy, can increase, then tourists can also travel comfortably.

The insights from the WTP analysis provide valuable input in guiding the selection of an aggressive tourism development strategy for Baruna Beach. The findings indicate that a majority of tourists (87%) are willing to pay more to improve the quality of tourism services and facilities This suggests that Baruna Beach has the potential to generate sustainable revenue by implementing a tiered pricing structure based on visitors' preferences and financial capability. By adopting this approach, aggressive strategies that leverage WTP findings can focus on infrastructure development, improving service quality, and environmental preservation. For example, funds raised from higher entrance fees can be allocated directly to building better facilities such as modern toilets, dedicated photo spots, and environmentally friendly waste management systems.

In addition, integrating WTP data into the SWOT framework ensures that financial resources are optimized to maximize strengths and opportunities while mitigating weaknesses and threats. By aligning pricing strategies with tourists' willingness to contribute, local governments can justify higher investments in tourism development without relying entirely on government funding. Implementing this model in Baruna Beach will build a self-sustaining tourism economy that drives long-term growth while preserving the area's natural and cultural assets.

CONCLUSION

The Contingent Valuation Method in this study is used to determine the level of willingness of the tourist community to develop Baruna Beach tourism. Based on the study results, most tourists state that they are willing to pay a higher fee to support the development of these tourist objects. As many as 87% of tourists indicated they were willing to pay a predetermined amount of money for three choices. The average WTP value is IDR 15,000, which can be used as a reference in determining entrance tickets to Baruna Beach.

Based on the SWOT analysis and IFAS-EFAS calculations that have been carried out in this study, it can be concluded that Baruna Beach tourism has great potential to be developed. Based on the analysis results, it was found that the strengths of Baruna Beach are more significant than its weaknesses and opportunities for tourism development, especially in the development of tourist facilities and infrastructure and the use of online media. Thus, the recommended Strategy for developing Baruna Beach tourism is an aggressive strategy.

This study is limited to on-site respondents, excluding potential tourists whose willingness to pay (WTP) may vary based on distance, accessibility, and available information. Additionally, socio-demographic factors influencing WTP remain unexplored. Future research should examine socio-cultural aspects such as environmental awareness, cultural attachment, and past tourism experiences while also comparing pricing models like dynamic pricing, membership-based access, or bundled services. Practically, tourism authorities can use these findings to set entrance fees that align with tourists' expectations while supporting sustainable development, and local businesses can leverage WTP-driven strategies by offering value-added services. Given Baruna Beach's strengths and opportunities, an aggressive development strategy is recommended to enhance its competitiveness and attract more visitors.

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REFERENCES

[1] Fithor, Alin, S. Budi P., Frida P., and Agus I. 2021. Overlapping Coastal Spatial Laws in Semarang, Indonesia. *Aquaculture, Aquarium, Conservation & Legislation*. 14(5), 2969-2975.

[2] Kemenparekraf. 2021. Pesona Padang Sabana di Pantai Baruna Semarang. Badan Otorita Borobudur. Avalable at: https://bob.kemenparekraf.go.id/37203-pesona-padang-sabana-di-pantai-baruna-semarang/. Accessed on 20 October 2025.

[3] Walikota Semarang. 2017. Peraturan Daerah Kota Semarang No 11 Tahun 2017 Tentang Perubahan atas Peraturan Daerah Kota Semarang No 6 Tahun 2016 Tentang Rencana Pembangunan Jangka Menengah Daerah Kota Semarang Tahun 2016-2021. Indonesia.

[4] Praniti, Dina L., Nina W., and Ari W. 2015. Strategi Pengembangan Pariwisata Kota Semarang (Studi Kasus Peningkatan Obyek Wisata Taman Margasatwa Semarang). *Journal of Public Policy and Management Review*. 4(2), 179-195. DOI: 10.14710/jppmr.v4i2.8220.

[5] Streimikiene, Dalia, B. Svagzdiene, E. Jasinskas, and A. Simanavicius. Sustainable tourism development and competitiveness: The systematic literature review. *Sustainanble Development*. 29(1), 259–271. DOI: 10.1002/sd.2133.

[6] Rubio-Cisneros et al. 2022. Tourists perceptions of Caribbean islands facing environmental threats before the COVID-19 health crisis: Holbox Island and Archipelago of Bocas del Toro. *PLoS One*. 17(3), e0262014. DOI: 10.1371/journal.pone.0262014.

[7] Kafyri, Andriani, T. Hovardas, and K. Poirazidis. 2012. Determinants of visitor pro-environmental intentions on two small greek islands: Is ecotourism possible at coastal protected areas? *Environmental Management.* 50(1), 64–76. DOI: 10.1007/s00267-012-9856-z.

[8] Ballantyne, Roy, J. Packer, and K. Hughes. 2009. Tourists' support for conservation messages and sustainable management practices in wildlife tourism experiences. *Tourism Management.* 30(5), 658–664. DOI: 10.1016/j.tourman.2008.11.003.

[9] Lee, Won Hee, and G. Moscardo. 2005. Understanding the impact of ecotourism resort experiences on tourists' environmental attitudes and behavioural intentions. *Journal of Sustainable Tourism*. 13(6), 546–565. DOI: 10.1080/09669580508668581.

[10] Sharmin, Farzana, M. T. Sultan, A. Badulescu, D. P. Bac, and Benqian Li. 2020. Millennial tourists' environmentally sustainable behavior towards a natural protected area: An integrative framework. *Sustainability*. 12(20), 8545. DOI: 10.3390/su12208545.

[11] Puhakka, R., and P. Siikamäki. 2012. Nature tourists response to ecolabels in Oulanka PAN Park, Finland. *Journal of Ecotourism*. 11(1), 56–73. DOI: 10.1080/14724049.2011.647917.

[12] Ezeh, P. Chikezie and Kaitano Dube. 2024. Willingness to Pay in Tourism and Its Influence on Sustainability. *Sustainability.* 16(23), 10630. DOI: 10.3390/su162310630.

[13] Tou, Nurhaeka. 2021. Analisis Hubungan Kausal Dari Faktor–Faktor Yang Memengaruhi Kemandirian Lansia Dalam Melakukan Activities Of Daily Livings (Adls). Thesis. Universitas Islam Indonesia. Yogyakarta.

[14] Waridin, R. K. Dhea Safira, I. Susilowati, K. Wijajanti, and E. Y. Purwanti. 2019. Economic Evaluation on the Application of Collaborative Forest Management (CFM). *Economics Development Analysis Journal*. 8(4), 292–301. DOI: 10.15294/edaj.v8i4.36124.

[15] Sudrajad, N., Waridin, J. Aminata, and I. Susilowati. 2021. The Analysis of Willingness to Pay (WTP) Visitors to the Development of Rafting Tourism in Serayu Watershed. *Jurnal Ekonomi Kuantitatif Terapan.* 14(2), 243-431. DOI: 10.24843/JEKT.2021.v14.i02.p02.

[16] Kapera, Izabela. 2018. Sustainable tourism development efforts by local governments in Poland. *Sustainable Cities and* Society. 40, 581–588. DOI: 10.1016/j.scs.2018.05.001.

[17] Kişi, Nermin. 2019. A strategic approach to sustainable tourism development using the A'WOT hybrid method: A case study of Zonguldak, Turkey. *Sustainability*. 11(4), 964. DOI: 10.3390/su11040964.

[18] Gerami, F., and Z. Hosseini. 2021. Planning for Sustainable Tourism Development using SWOT Analysis - Case Study: Pasargad Region - Fars, Iran. *Athens Journal of Tourism*. 8(1), 43–54. DOI: 10.30958/ajt.8-1-3.

[19] Nusraningrum, D., and Aditya Pratama. 2019. The tourism development through creative economy. *International Journal of Engineering and Technology*. 8(6S3), 300–308. DOI: 10.35940/ijeat.F1049.0986S319.

[20] Sadeghi, Marjaneh K. 2021. Presentation of SWOT strategies for the sustainable tourism

development on the Caspian Sea coast of Gilan province , Iran. *Anthropogenic Pollution* Journal. 5(2), 47–56. DOI: 10.22034/AP.2021.1934536.1112.

[21] Wang, Peng-Wei, and J.-B. Jia. 2012. Tourists' willingness to pay for biodiversity conservation and environment protection, Dalai Lake protected area: Implications for entrance fee and sustainable management. *Ocean & Coastal Management*. 62, 24–33. DOI: 10.1016/j.ocecoaman.2012.03.001.

[22] Lopes, Eunice R., N. Araújo-Vila, A. R. C. Perinotto, and L. Cardoso. 2022. Tourism and Land Planning in Natural Spaces: Bibliometric Approach to the Structure of Scientific Concepts. *Land.* 11(11), 1930. DOI: 10.3390/land11111930.

[23] Wang, Caiping, and H. Xu. 2014. The role of local government and the private sector in China's tourism. *Tourism* Management. 45, 95–105. DOI: 10.1016/j.tourman.2014.03.008.

[24] Harper, Sarah, M. Adshade, V. W. Y. Lam, D. Pauly, and U. R. Sumaila. 2020. Valuing invisible catches: Estimating the global contribution by women to small-scale marine capture fisheries production. *PLoS One*. 15(3), 1–16. DOI: 10.1371/journal.pone.0228912.

[25] Diswandi, dan E. Saptutyningsih. 2018. Using contingent valuation method for estimating the willingness to pay for mangrove forest: A study in West Lombok, Indonesia. pp. 1–8. In: Proceed-ing *3rd Environment and Natural Resources International Conference.* Chonburi, Thailand.

[26] Aizaki, Aizaki, T. Nakatani, K. Sato, and J. Fogarty. 2022. R package DCchoice for dichotomous choice contingent valuation: a contribution to open scientific software and its impact. *Japanese Journal of Statistics and Data Science*. 5(5), 871-884. DOI: 10.1007/s42081-022-00171-1

[27] Etikan, I., S. A. Musa, and R. Sunusi A. 2016. Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*. 5(1), 1-4. DOI: 10.11648/j.ajtas.20160501.11.

[28] Creswell, Jhon W. 2010. Research Design: Pendekatan Kualitatif, Kuantiatif dan Mixed. Pustaka Pelajar. Yogyakarta.

[29] Susanto, Putu Chris. 2022. Initiation of a Rural Edutourism Destination in Bali Indonesia based on SWOT Analysis. *International Journal of Social Science and Education Research Studies*. 2(2), 50-60.

[30] Ritonga, Husni M. et al. 2018. Rural tourism marketing strategy and swot analysis: A case study of bandar pasir mandoge sub-district in north sumatera. *International Journal of Civil Engineering and Technology*. 9(9), 1617–1631.

[31] Waridin, A. Dzulkhijiana, and I. Mafruhah. 2018. Community empowerment in rural infrastructure development program. *Economic Journal of Emerging Markets.* 10(1), 8–14. DOI: 10.20885/ejem.vol10.iss1.art2.

[32] Hanemann, W. Michael. 1984. Welfare evaluations in contingent valuation experiments with discrete responses. *American Journal of Agricultural* Economics. 66(3), 332–341. DOI: 10.2307/1240800.

[33] Carson, Richard T., and M. Czajkowski. 2014. The discrete choice experiment approach to environmental contingent valuation. pp. 202–235. In: Hess, S., and A. Daly (eds.) *Handbook of Choice Modelling*. Edward Elgar Publishing, Cheltenham, UK.

[34] Babbie, Earl R. 2020. The practice of social research. Cengage Learning. Boston, US.

[35] DeVellis, R. F., and Thorpe C. T. 2022. Scale Development: Theory and Applications. Fifth Edition. Sage publications Inc. London, UK.

[36] Araújo, Arthur F. D., M. I. Andrés Marques, M. T. R. Candeias, and A. L. Vieira. 2022. Willingness to pay for sustainable destinations: a structural approach. *Sustainability*. 14(5), 2548. DOI: 10.3390/su14052548.

[37] Sethy, Milan K., and A. K. Senapati. 2023. Perceptions towards ecotourism practice and the willingness to pay: Evidence from Chilika coastal wetland ecosystem, Odisha. *International Journal of Geoheritage and Parks.* 11(3), 497–513. DOI: 10.1016/j.ijgeop.2023.08.001.

[38] Panwanitdumrong, K., and C.-L. Chen. 2022. Are Tourists Willing to Pay for a Marine Litter-Free Coastal Attraction to Achieve Tourism Sustainability? Case Study of Libong Island, Thailand. *Sustainability*. 14(8), 4808. DOI: 10.3390/su14084808.

[39] Díez-Gutiérrez, M., and S. Babri. 2022. Tourists' perceptions of economic instruments as sustainable policies in protected areas: The case of Geiranger fjord in Norway. *Journal of Outdoor Recreation*

and Tourism. 39, 100526. DOI: 10.1016/j.jort.2022.100526.

[40] Garrod, Guy, and K. G. Willis. 1999. Economic valuation of the environment: Methods and Case Studies. Edward Elgar Publishing. Cheltenham, UK.

[41] Liu, Wei, C. A. Vogt, J. Luo, G. He, K. A. Frank, and J. Liu. 2012. Drivers and socioeconomic impacts of tourism participation in protected areas. *PLoS* One. 7(4), e35420. DOI: 10.1371/journal.pone.0035420

[42] Bhandari, A. K., and A. Heshmati. 2010. Willingness to pay for biodiversity conservation. *Journal of Travel Tourism Marketing*. 27(6), 612–623. DOI: 10.1080/10548408.2010.507156.

[43] Choi, E. C., and J. S. Lee. 2018. The willingness to pay for removing the microplastics in the ocean–The case of Seoul metropolitan area, South Korea. *Marine Policy.* 93, 93–100. DOI: 10.1016/j.marpol.2018.03.015.

[44] Aseres, S. A., and R. K. Sira. 2020. Estimating visitors' willingness to pay for a conservation fund: sustainable financing approach in protected areas in Ethiopia. *Heliyon.* 6(8), e04500. DOI: 10.1016/j.heliyon.2020.e04500.

[45] Stithou, M., and R. Scarpa. 2012. Collective versus voluntary payment in contingent valuation for the conservation of marine biodiversity: An exploratory study from Zakynthos, Greece. *Ocean and Coastal Management*. 56, 1–9. DOI: 10.1016/j.ocecoaman.2011.10.005.

[46] Castaño-Isaza, J., R. Newball, B. Roach, and W. W. Y. Lau. 2015. Valuing beaches to develop payment for ecosystem services schemes in Colombia's Seaflower marine protected area. *Ecosystem Services*. 11, 22–31. DOI: 10.1016/j.ecoser.2014.10.003.

[47] Enriquez-Acevedo, T., C. M. Botero, R. Cantero-Rodelo, A. Pertuz, and A. Suarez. 2018. Willingness to pay for Beach Ecosystem Services: The case study of three Colombian beaches. *Ocean and Coastal Management.* 161, 96–104. DOI: 10.1016/j.ocecoaman.2018.04.025.

[48] Reynisdottir, M., H. Song, and J. Agrusa. 2008. Willingness to pay entrance fees to natural attractions: An Icelandic case study. *Tourism Management*. 29(6), 1076–1083. DOI: 10.1016/j.tourman.2008.02.016.

[49] Guo, Dong, A. Wang, and A. T. Zhang. 2020. Pollution exposure and willingness to pay for clean air in urban China. *Journal of Environmental Management*. 261, 110174. DOI: 10.1016/j.jenvman.2020.110174.

[50] Serefoglu, Coskun. 2018. Determinantion of visitors' willingness to pay to enter Karagol Natural Park of Ankara, Turkey. *Ciência Rural*. 48(7). DOI: 10.1590/0103-8478cr20170869.

[51] Trung, Hung Vo, T. Viet Nguyen, and M. Simioni. 2020. Willingness to pay for mangrove preservation in Xuan Thuy National Park, Vietnam: do household knowledge and interest play a role? *Journal of Environmental Economics and Policy*. 9(4), 402–420. DOI: 10.1080/21606544.2020.1716854.

[52] Witt, Brian. 2019. Tourists' willingness to pay increased entrance fees at Mexican protected areas: A multi-site contingent valuation study. *Sustainability.* 11(11), 3041. DOI: 10.3390/su11113041.

[53] Baumgärtner, S., M. A. Drupp, J. N. Meya, J. M. Munz, and M. F. Quaas. 2017. Income inequality and willingness to pay for environmental public goods. *Journal of Environmental Economics and Management*. 85, 35–61. DOI: 10.1016/j.jeem.2017.04.005.

[54] OECD. 2006. Cost-Benefit Analysis and the Environment: Recent Developments. OECD Publishing. Paris. DOI: 10.1787/9789264010055-en.

[55] Dagiliūtė, R., M. Žalandauskas, G. Sujetovienė, and J. Žaltauskaitė. 2017. Willingness to Pay for the Authenticity of the Curonian Spit. *Environmental Processes*. 4(2), 251–262. DOI: 10.1007/s40710-017-0238-7.

[56] Schuhmann, P. W. et al. 2019. Visitors' willingness to pay marine conservation fees in Barbados. *Tourism Management*. 71, 315–326. DOI: 10.1016/j.tourman.2018.10.011.

[57] Tseng, Ming-L., C. Lin, C. W. Remen Lin, K.-J. Wu, and T. Sriphon. 2019. Ecotourism development in Thailand: Community participation leads to the value of attractions using linguistic preferences. *Journal of Cleaner Production*. 231, 1319–1329. DOI: 10.1016/j.jclepro.2019.05.305.

[58] Pascoe, Sean et al. 2014. Estimating the potential impact of entry fees for marine parks on dive tourism in South East Asia.

Marine Policy. 47, 147–152. DOI: 10.1016/j.marpol.2014.02.017.

[59] Siew, M. K., M. R. Yacob, A. Radam, A. Adamu, and E. F. Alias. 2015. Estimating willingness to pay for wetland conservation: a contingent valuation study of Paya Indah Wetland, Selangor Malaysia. *Procedia Environmental Sciences*. 30, 268–272. DOI: 10.1016/j.proenv.2015.10.048.

[60] Baskara, K. A., R. M. Hendarto, and I. Susilowati. 2017. Economic's valuation of marine protected area (Mpa) of Karimunjawa, Jepara-Indonesia. *AACL Bioflux.* 10(6), 1554–1568.

[61] Madzík, P., and A. Shahin. 2020. Customer categorization using a three-dimensional loyalty matrix analogous to FMEA. *International Journal of Quality & Reliability Management.* 38(8), 1833–1857. DOI: : 10.1108/IJQRM-05-2020-0179.

[62] Jayaprakash, K., & B. Mythili. 2017. Tousrist Satisfaction Level on Destination Facilities in The Nilgiris. *EPRA International Journal of Economic and Business Review*. 5(9), 122–126.

[63] Scheyvens, R., and E. Hughes. 2019. Can tourism help to 'end poverty in all its forms everywhere'? The challenge of tourism addressing SDG1. *Journal of Sustainable Tourism.* 27(7), 1061–1079. DOI: 10.1080/09669582.2018.1551404.

[64] Kang, M., and M. A. Schuett. 2013. Determinants of Sharing Travel Experiences in Social Media. *Journal of Travel & Tourism Marketing*. 30(1–2), 93–107. DOI: 10.1080/10548408.2013.751237.

[65] Liu, Hongbo, L. Wu, and X. (Robert) Li. 2018. Social Media Envy: How Experience Sharing on Social Networking Sites Drives Millennials' Aspirational Tourism Consumption," *Journal of Travel Research.* 58(3), 355–369. DOI: 10.1177/0047287518761615.