



## Analysis of Marketing and Tourist Satisfaction against Quality Karangsong Mangrove Tourism in Indramayu Regency

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### Abstract

Tourism is one of the most promising sectors for Indonesia with her huge natural beauty, heroic historical background, archaeological resources, biomega diversity and archipelago country. The coastal zone is a transition area between land and sea that are still exposed to influence from the Mainland as well as the sea. One of the potential which has coastal resources can be utilized as a tour of the mangrove ecosystem. This research location in the Karangsong mangrove tourism area and government offices of Indramayu Regency, West Java Province, Indonesia. This research aimed to analyzed of marketing and tourist satisfaction with quality of the Mangrove Tourism service products in Karangsong Village, Indramayu Districts. Time and place of research is carried out in February 2018 to July 2019 in Karangsong Village, Indramayu Districts. This research was designed used quantitative descriptive research methods. The sampling method used is accidental sampling method. The results of the research were analyzed using SPSS software and Ms. Excel for Validity and Reliability Test with the questionnaires distributed and then processed used the Importance Performance Analysis (IPA) method, the Customer Satisfaction Index (CSI) and chi square test. Where the results on Quadrant I are the main priority for the manager to develop in order to increase the level of satisfaction of tourists in the future. Then the results of CSI are the level of tourist satisfaction is around 61%. From the result, tourist are "Quite Satisfied" with Karangsong Mangrove Tourism and the results of chi square test states that the place of residence has a correlation with tourist satisfaction. Manager of Pantai Lestari should more focus to making tourists very satisfy.

**Keywords:** Tourism; Coastal zone; Mangrove Tourism; Marketing; Tourist Satisfaction

### Introduction

#### Background

The coastal area is a transitional area between land and sea which is still affected by the influence of land and sea. Judging from the coastline, a coastal area has two types of boundaries, namely one that is parallel to the coastline (longshore) and one that is perpendicular to the coastline (crossshore) [1]. One of the potentials that have coastal resources that can be used as marine tourism is the mangrove

ecosystem. Mangrove forests are a unique and distinctive ecosystem form, generally found in tidal areas in coastal areas, beaches and small islands. Mangrove ecosystems have high economic and ecological value. Marine ecotourism is a form of coastal and marine resource management developed with a conservation approach. The concept of ecotourism does not prioritize economic growth factors, but rather maintains a balance between utilization and resource conservation activities [2]. Indonesia should have been able to excel in the management of marine tourism, because this country has a very high biodiversity. Marine tourism is an activity of tourists who travel from one place to another to carry out tourism activities that care about the coastal and marine environment, and utilize all biodiversity and resources as well as a conservation approach. So that marine tourism can also support the preservation of an existing bio and resources. With marine tourism activities, it is expected that there will be a preservation and balance of the environment and existing resources so that sustainable development can be guaranteed.

As for the definition of shore excursions or marine tourism is the object and its appeal stems from the potential span the Sea (seascape) and the physical landscape of the coast (coastal landscape). Indonesia is an archipelago country that has a very broad region stretching from Sabang to Merauke and has a diversity of ethnic groups and cultures. Indonesia also has a lot of tourism potential of mangrove tourism potential for the highly developed, one in the Regency of Indramayu, village Karangsong. After one year of research, the research team grants internal Unpad 2017 has been getting map the suitability of mangrove tourism, and the result ecotourism mangrove Karangsong is very suitable for tourism but until now has not been much promotion done by the Manager Pantai Lestari or the local government.

Indramayu Regency is located on the geographical position '107°52' East longitude 108°036 (BT) and 6°15'-6°40' South latitude (LS). Indramayu Regency wide around the 204,011 Ha in area 31 administrative districts and 302 villages. According to the Forestry and plantations of Indramayu Regency in the year 2017 including who has the worst level of damage of mangrove forests in the province of West Java. Extents 8,023 Ha of mangrove forests as protected forest. Based on analysis of satellite imagery data extensive mangrove forests in Indramayu year 2008 is 1,103 Ha (BPLHD, 2008). Should have been done through the management means there is already extensive addition of mangrove forests occur from period 2008 to 2017.

#### Rationale of the Study

Mangroves are a typical tropical coastal vegetation community, growing and developing in tidal areas, especially near estuaries, rivers, lagoons and beaches which are protected by mud or sandy mud substrate. A mangrove ecosystem is a unity between mangroves, animals and other organisms that interact with each other and their environment. Tuwo [3] explained that, initially ecotourism was defined as a form of tourism that emphasized the responsibility for preserving nature, providing benefits to the economy and maintaining cultural integrity for the local community. Mangroves are a typical tropical coastal vegetation community, growing and developing in tidal areas, especially near estuaries, rivers, lagoons and beaches which are protected by mud or sandy mud substrate. A mangrove ecosystem is a unity between mangroves, animals and

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other organisms that interact with each other and their environment. Tuwo [3] explained that, initially ecotourism was defined as a form of tourism that emphasized the responsibility for preserving nature, providing benefits to the economy and maintaining cultural integrity for the local community.

Sukardi in Andayani [4] also expressed the notion of tourism “Tourism in its purest sense is to have fun and be enjoyed in free time. As a result of these symptoms or phenomena and relationships, the local population emerged the tourism industry”. Andayani [4] defines tourism products as an integrated product arrangement, which consists of tourist objects and attractions, transportation, accommodation and entertainment, where each element of tourism products is prepared by each company and offers separately to consumers (tourists / tourist). Wahab [5] limits tourism marketing as systematic and integrated efforts made by national tourism organizations and or tourism business entities at international, national and local levels in order to meet tourist satisfaction both individually and in groups with the aim of increasing growth. tourism. The concept of ecotourism does not only prioritize economic growth factors, but is able to maintain a balance between resource utilization and sustainability activities. Mangrove ecotourism is a tourism activity with a coastal and marine environment with the target of mangrove ecosystem resources. Fish products and products from mangrove forests can become commodities that support ecotourism activities (Tuwo) [3] Cahyani [6]

Tourism products are a series of various interrelated services, namely services produced by various companies (from an economic perspective), community services (from a social perspective) and natural services. According to Pendit [7] in essence, the meaning of tourism products “is the entire service that has been obtained and felt or enjoyed by tourists since he left his place of residence to the tourist destination he chose and returned to the house where he originally left”.

Poerwanto in Pendit [7] has formulated the components of tourism products, namely:

1. Attractions, namely natural, cultural and man-made tourist attractions such as festivals or art performances.

1. Accessibility, namely the ease in obtaining or reaching tourist destinations such as tourism organizations (travel agents).

2. Amenities, namely facilities to get pleasure. In this case it can take the form of accommodation, cleanliness and hospitality.

3. Networking, namely a network of cooperation related to the products offered locally, nationally and internationally.

The concept of customer satisfaction (tourists) is an after-purchase evaluation or evaluation results after comparing what is felt with expectations. Based on the above opinion, it can be concluded that tourist satisfaction is the level of feeling of satisfaction that is felt through tourism activities, by comparing the performance (or results) that he feels with his expectations, or the tourists’ assessment of the perceived results after consuming or using the service in his hopes before consuming or use these services (Figure 1).

## Objectives of the Study

Based on the problem formulation that has been described, the objectives to be achieved through this research are as follows:

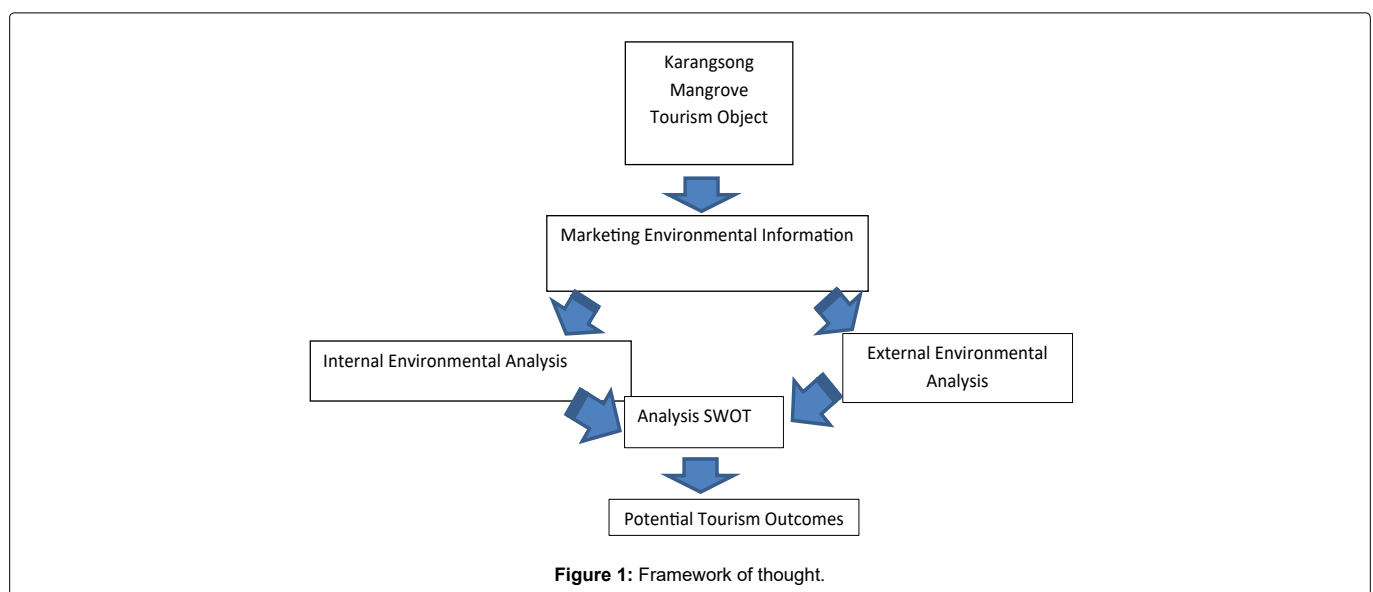
1. To analyze internal and external environmental conditions in the marketing of mangrove tourism objects in Karangsong, Indramayu Regency.

2. To find out how Regional Development Strategy for Karangsong mangrove tourism.

3. Knowing the level of tourist satisfaction with the object of Karangsong mangrove ecotourism.

4. Scope and Research Method

This research uses a survey method that uses descriptive qualitative and quantitative methods. Descriptive is a research method that seeks to describe or describe phenomena or relationships between phenomena being studied systematically, factually and accurately. Then to determine the level of tourist satisfaction used quantitative methods. The data used are primary and secondary data. Primary data was obtained from interviews with several related parties such as visitors, tourist attraction managers, and regionynal tourism policy



makers. Then secondary data is obtained from reports of related tourism agencies. The sampling method in this study is to use the Accidental Sampling method, especially for tourists. This sampling technique is based on chance, that is, anyone who happens to meet the researcher can be used as a sample. The consideration of using the purposive sampling method especially for offices/agencies because this sampling method deliberately selects respondents based on the desired data needs, namely with the provisions of community participation in tourism activities, other considerations are the ease of conducting interviews and the willingness of respondents to participate in tourism activities. Provide information needed in research activities and based on the relationship of these stakeholders with the Karangsang mangrove tourism area, either directly or indirectly. Analyzing the respondent's questionnaire data using SPSS version 11.5 and Microsoft Excel software.

The research sample is part of tourists/ visitors who come to the Karangsang mangrove tourism area, the surrounding community, managers and agencies related to the Karangsang mangrove tourism area who are 17 - 65 years old. The calculation of the number of samples is determined according to the sample size table for proportion estimation with absolute precision of 0.05 and 95% degree of confidence, a sample of 85 people was obtained, to avoid drop out the number of samples was added 10% so that the number of samples to be taken was 80 respondents (1998). This sample is divided into as many as 65 visitors as well as the surrounding community, managers and related institutions as many as 20 people. Samples of local communities, managers and related agencies will be taken from the Regional Planning and Management Agency (BAPPEDA) of West Java Province and Indramayu Regency 4 people, 4 people from the Tourism Office of West Java Province and Indramayu Regency, 4 people from the Marine and Fisheries Office of West Java Province and Indramayu Regency 4 person, Karangsang Village Office 1 person, Pantai Lestari Community Group 2 person, West Java Tourism Promotion Board (BPPJB) 1 person.

## Analysis SWOT

SWOT analysis is the systematic identification of various factors to formulate a strategy. SWOT analysis is based on a logic that maximizes strengths (S) and opportunities (O), but simultaneously minimizes weaknesses (W) and threats (T). SWOT analysis compares the external factors of opportunities (Opportunities) and threats (Threats) with internal factors of strength (Strengths) and weaknesses (Weaknesses). This SWOT analysis will produce a SWOT matrix. This matrix can produce 4 sets of possible alternatives. The four strategies are (Rangkuti, 2003):

SO, namely by utilizing all strengths to take full advantage of opportunities.

ST, namely a strategy in using the strengths that are owned to overcome threats.

WO, namely a strategy based on exploiting existing opportunities by minimizing existing weaknesses.

WT, namely a strategy based on activities that are defensive in nature and trying to minimize existing weaknesses and avoid threats.

The framework using the SWOT analysis approach is as follows:

- Analysis and creation of the IFE (Internal Factor Evaluation) matrix

- Analysis and creation of an EFE (External Factor Evaluation) matrix
- Making a SWOT matrix
- Making alternative strategy ranking tables

## Importance Performance Analysis (IPA)

The method of using the Importance Performance Analysis (IPA) analysis tool is a technique to measure the level of importance or expectation of the service / product instrument according to the consumer's view and the level of performance that is useful for developing a business being run. The use of the IPA method is intended to measure the level of customer or tourist satisfaction, the assessment uses a Likert scale with a score of 1 to 5 to measure the level of importance and level of implementation (Table 1).

The level of expectation is categorized into very important, important, moderately important, not important and very unimportant. Meanwhile, the level of performance is categorized as very good, good, good enough, not good and very bad. The score or value used is shown in Table 3. The total assessment of the level of expectation and the level of performance of each attribute is obtained by adding up the multiplication of the score for each scale with the number of respondents who chose on a Likert scale. The ranges for each scale are:

$$\text{Scale range} = (\text{Xib} - \text{Xik})$$

The number of measurement scales

Where:

Xib=The largest possible score with the assumption that all respondents gave very important answers.

Xik=largest possible score with the assumption that all respondents gave unimportant answers

Based on the score of the measurement of the level of importance and level of performance with a score of 1 to 5, to interpret the overall attribute assessment a scale range is used with the formula:

$$\text{Scale range} = ((5 \times 100) - (1 \times 100)) / 5$$

Where: m=highest score, n=lowest score, b=number of classes or categories, a scale range of 80 is obtained.

## Analysis of Customer Satisfaction Index (CSI)

The Customer Satisfaction Index (CSI) is used to determine the overall level of visitor satisfaction with an approach that takes into account the level of importance of the measured service quality attributes.

## Chi Square Test

Chi square test is one of the non parametric statistical tests. Because it is included in a non-parametric test, the Chi Square test

**Table 1:** Measurement of the importance of the score and the performance level.

The Importance of The Performance Level Score		
Score	Important Levels	Performance levels
1	Unsatisfy	It's not very good
2	Not satisfy	Is not good
3	Less satisfy	Less well
4	Satisfy	Good
5	Very satisfy	Very good

can be applied for testing nominal and categorical data.

## Location and Time

This research will be conducted in the mangrove tourism area of Indramayu Regency and several offices in Indramayu Regency and Bandung City, West Java Province. The time of this research will start in March - September 2018.

## Results

This research has illustrated that a positive coastal area is better with conservation. The Karangsong mangrove area is located on the outskirts of the northern sea waters of West Java Province. Therefore, it is very important to have a green belt on the coast, such as the mangrove ecosystem. Replanting mangrove trees due to the damaged conditions, conservation has succeeded in saving the area behind it. The mangrove area that was used for mangrove ecotourism was not used as original mangrove forest, but this area was planted by the community with financial assistance from Pertamina, as well as other companies and related agencies. So that now this mangrove area is even better and better organized. After the growth of this mangrove area, conservation activities in Karangsong have been able to preserve the mangrove ecosystem. And now the area that has recently been of interest has a lot of community presence attending this mangrove tour.

So according to the various references, marine tourism is a concept that connects tourism with conservation, ecotourism is often understood as environmentally friendly tourism, and this type of tourism is a form of alternative tourism that emphasizes responsibility for the environment. Marketing in this sector should use billboard near the city center, promotion on social media or radio and television, but local government must be avoid marketing using television media because costly promotion. The best way is using social media and mouth to mouth promotion.

The tourism sector is one of the most strategic factors for the economy of a region, especially in increasing people's income, local revenue and foreign exchange. Tourism can provide many social, economic benefits and even support for development in the environment, besides that tourism is also often used as the first step taken to advance a country's economy. Tourism is much more than a mere economic activity; it is a complex and dynamic phenomenon, present in virtually every corner of the world and affecting people in multiple ways. The sociocultural effects of tourism, especially in developing countries, are probably the most worrying aspect of a globalized sector that offers cut-price packages to remote and exotic destinations.

## Regional Development Strategy

The Karangsong mangrove ecotourism area which has now developed as one of the ODTW (Tourism Destination Objects) destinations in Indramayu Regency, should have a development strategy. The strategy developed must be able to maximize the strength (strength) and improve the weakness (weakness) that is owned internally in the ecotourism. In addition, the managers of Sustainable Coastal Mangrove Ecotourism must also be able to take advantage of opportunities and be able to face external threats that can affect the continuity of existing service products.

## Analysis SWOT (Strength, Weakness, Opportunities, and Threats)

From the results of the SWOT analysis conducted to formulate

a regional development strategy, the IFE (internal factor evaluation) and EFE (external factor evaluation) matrices were successfully compiled as follows (Table 2).

It can be seen from the table above that the internal strength factor that has the highest score assessment is the quality of the scenery, followed by the atmosphere of traveling comfort, biodiversity, and finally the distance traveled. This means that the quality of the Karangsong mangrove ecotourism landscape is considered better by visitors than the other three factors, and then this is considered the most important by visitors to an ecotourism place (Table 3).

From the calculation of the evaluation of external factors, what becomes an opportunity in the development of the area is the trend of increasing public interest in ecotourism. Then there is support from the local government, community concern for the environment and empowerment of local communities. After evaluating the internal and external conditions, in determining the strategy to be carried out, it is necessary to calculate the coordinate points on the SWOT quadrant graph. This point is obtained from the following calculations:

$$X \text{ axis} = \text{Strength} - \text{Weakness} = 6.93 - 6,52 = 0.42$$

$$Y \text{ axis} = \text{Opportunities} - \text{Threats} = 7.33 - 7.04 = 0.3$$

So for coordinates (0.42, 0.3) when mapped in a Cartesius diagram are as follows: (Figure 2).

From the mapping results above, it is obtained that the coordinate points of the evaluation of internal and external factors are in

**Table 2:** Matriks IFE (internal factor evaluation).

Strength		Rating	Weight	Score
1	Scene quality	7.1	0.21	1.47
2	The atmosphere of traveling comfort	6.9	0.20	1.41
3	Variations in tourism activities	6.9	0.19	1.32
4	Mileage (proximity) to the nearest city	6.9	0.19	1.33
5	Biodiversity	6.9	0.20	1.40
Total S				6.93
Weakness		Rating	Weight	Score
1	Ease of access to location	6.3	0.25	1.58
2	Quality of infrastructure	6.5	0.25	1.58
3	Management of tourist attractions	6.5	0.25	1.63
4	Tourism support facilities	6.7	0.25	1.72
Total W		----	---	6.52
Total (S-W)		----	----	0.42

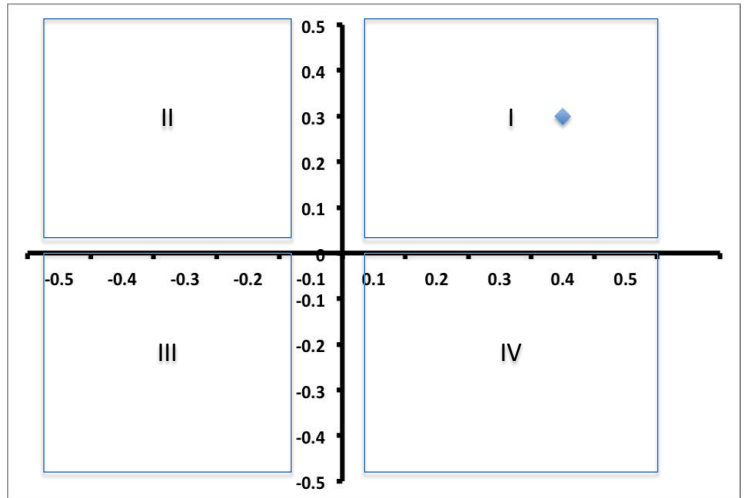
Source: Processed Data

**Table 3:** Matriks EFE (external factor evaluation).

Opportunities		Rating	Weight	Score
1	Increasing interest in community ecotourism	7.4	0.26	1.94
2	Increased environment awareness	7.5	0.24	1.81
3	Empowerment of local communities	7.3	0.24	1.76
4	Support from local government	7.2	0.25	1.82
Total O		--	--	7.33
Threats		Rating	Weight	Score
1	Cometition with similar tourism	7.3	0.31	2.27
2	Opportunities for environmental pollution	6.9	0.35	2.46
3	Conflict with fisheries (fish farmers and fisherman)	6.9	0.33	2.31
Total T		--	--	7.04
Total (O-T)		--	--	0.30

Source: Processed Data





**Figure 2:** Diagram kuadran SWOT.

**Table 4:** Average value of performance level and expectation for Mangrove Tourism in Karangsong Village.

No. Instrumen	Questions	Average Expectations	Average Performance
<b>Tangibles</b>			
1	High Biodiversity	4,23	3,3
2	Clean Mangrove Tourism Area	4,22	2,91
3	Adequate parking area for vehicles	4,21	3,23
4	The availability of complete tourist facilities (toilets, rest areas, prayer rooms, trash bins, places to eat)	4,21	2,98
5	The availability of information posts and entrance ticket sales	4,06	2,91
<b>Realibility</b>			
6	Clear travel procedures (procedures / rules)	4,33	2,96
7	Affordable entrance fee	4,36	3,49
8	Around the tourist area there is a map of the tourist flow	4,1	3,07
9	Availability of accurate information about flora and fauna in the tourist area	4,07	3,15
10	Ease of reaching locations including information on tourist sites	4,27	2,88
<b>Assurance</b>			
11	Availability of safety insurance for visitors	4,01	2,87
12	All workers involved have competence in their fields	4,13	2,9
13	The tourist area is very safe from criminal acts	4,14	3,07
<b>Responsiveness</b>			
14	The officers at the information post are always ready to provide explanations for	4,14	3,02
15	The officers at ticket sales posts are always ready to serve visitors who come	4,32	3,3
16	The officers respond to visitors' complaints quickly	4,15	2,94
<b>Emphaty</b>			
17	The officers always ask the needs of visitors	4,08	3,28
18	The officers always serves friendly and polite	4,36	3,33
19	The officers dressed neatly and clearly	4,26	2,84

**Source:** Processed Data

quadrant I of the SWOT diagram this means that the strategy that can be carried out by the manager is the business expansion strategy. It is possible to implement an expansion strategy when a service company or ecotourism operator has a positive strength condition and positive opportunity.

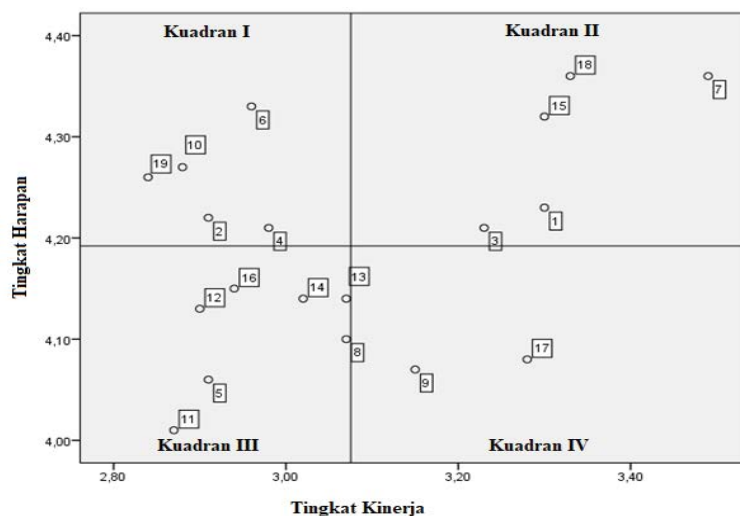
### Analysis IPA (Importance Performance Analysis)

In conducting Importance Performance Analysis using 5 types of service characteristics namely Tangibles, Realibility, Assurance, Responsiveness, Emphaty, of the 5 characters, then it is used as a reference in identifying the factors that are used as an assessment of the level of expectations by visitors and how the performance of

ecotourism managers in fulfilling them. From the compiled factors the assessment can be seen as follows (Table 4).

From the table above, regarding the average performance level and expectation level above, the results of these values are inputted into the Cartesius diagram to determine which question instruments in the questionnaire are included in Quadrant I (top priority), Quadrant II (maintain achievement), Quadrant III (low priority), Quadrant IV (excessive). Below is a Cartesian diagram that has been processed to determine the priority of the question instruments in the questionnaire (Figure 3).

From the results of Figure 4, data processing the results of the



**Figure 3:** Cartesius diagram of performance levels and expectations of 19 instruments.

questionnaire on the Cartesius diagram above, it can be seen:

#### Quadrant I (Top Priority)

In quadrant I, these are instruments that are considered important by visiting tourists, where the level of tourist expectations is high but the performance of the manager is considered insufficient by tourists or not in accordance with what tourists want. These instruments are a clean tourist area (Instrument 2), the availability of complete public facilities such as toilets, rest areas, prayer rooms, trash bins, places to eat (instrument 4), then clear tourist procedures (instrument 6), convenience reach tourist attractions including information to tourist attractions (instrument 10) and well-dressed and clear tour management officers (instrument 19). Of these five instruments, in reality, they are not in accordance with what tourists come to expect, so they are included in quadrant I where these five instruments must be of greater concern or even need improvement in the future so that the performance of the manager increases and is directly proportional to increased tourist satisfaction also.

#### Quadrant II (Maintain Performance)

The instruments that fall into quadrant II include high biodiversity (instrument 1), adequate parking area (instrument 3), affordable entrance fees (instrument 7), officers at ticket sales posts who are always ready to serve tourists who come (instrument 15) and officers always serve friendly and polite (instrument 18). These instruments are instruments that are considered important and have been in accordance with the reality felt by tourists, so that the level of satisfaction is relatively high. The performance of the instruments that are included in Quadrant II must be maintained because this is the advantage that is able to attract the attention of tourists to remain a place for Mangrove Tourism in Karangsang Village as a tourist destination of choice.

#### Quadrant III (Low Priority)

The instruments that fall into this quadrant are instruments that are considered less important by tourists who come because they feel they have little effect on tourist satisfaction and in fact their performance is not really considered. These instruments include the availability of information posts and entry ticket sales posts (instrument 5),

the availability of safety insurance for visitors (instrument 11), all workers involved have competence in their fields (instrument 12), officers at information posts are always ready to provide explanations for tourists (instrument 14) and officers respond to any visitor complaints quickly (instrument 16). Even though the existence of these instruments is not considered important by tourists, however, these instruments must be considered according to the level of their needs, so that they can maintain the performance and quality that has been given and of course if the performance of these instruments is improved it will improve the level of tourist satisfaction.

#### Quadrant IV (Excessive)

Instruments that are deemed less important by tourists but their performance is considered satisfactory so that they are considered excessive, among others, availability of tourist flow maps around tourist areas (instrument 8), availability of accurate information about flora and fauna in tourist areas (instrument 9), the tourist area is very safe from the occurrence of criminal acts (instrument 13) and officers always ask the needs of visitors (instrument 17). Improvements to the instruments in this quadrant can be reconsidered because the impact on benefits felt by visitors is very small and should be adjusted according to need so as not to over-impact.

From the results of the Importance Performance Analysis (IPA) analysis, it can be seen that the most important instrument where the expectation value is the highest according to tourists is the affordable entrance ticket fee with a value of 4.36 and tourism management officers who always serve kindly and politely with a value of 4.36 where these two instruments also have a high level of performance so that from these two instruments tourists are very satisfied with their performance and the manager must maintain it because these two instruments are the strength for the level of tourism satisfaction from the Karangsang Village Mangrove Tourism. Meanwhile, the instrument with the lowest expected value is the availability of safety insurance for tourists with a value of 4.01.

Then there are also instruments which according to tourists are very important with a high level of expectation value but the performance of the management is considered lacking by visitors, namely a clean tourist area, the availability of complete tourist

facilities, clear tourism procedures, ease of reaching tourist sites, officers who dress neatly and clearly. Where all these instruments are in Quadrant I.

In Quadrant I, it is the main priority for managers to make improvements or improvements so that in the future the level of tourist satisfaction can also increase where in instrument 6, namely a clear tourism procedure with a value of 4.33 where the expectation value is among the highest so that the manager must be able to improve travel procedures.

The results of the interview with Mr. Makrus, as one of the founders of the “Pantai Lestari” Forest Farmers Group and the head of the development of problems such as cleanliness of tourist attractions, it has been a long time since the focus is on the tracking area of the mangrove area because when the ecosystem is maintained there will definitely be flora. One of them that lives is the White Bagau Bird whose population is quite a lot in the Mangrove tourist area of Karangsong Village so that the dirt from the White Herons litter the tracking road of the mangrove tourism area.

From the results of data processing, the management of Mangrove Tourism in Karangsong Village should make clear tourist arrangements where the most tourists expect this instrument, one of which can be done by describing tourism activities and providing information about flora and fauna when tourists get on the boat. From the ticket sales post to the entrance to the tracking area which can simultaneously educate tourists.

From the results of research data processing, it can be seen that the instrument with the highest performance according to tourists is the affordable entrance fee with a value of 3.49, which is still the same as the highest value at the level of expectation. So, indeed, this affordable entrance fee is one of the attractions for tourists who come and feel worth it for the costs incurred for entrance tickets with the tours that are obtained.

While the lowest performance is in the instrument of the

availability of safety insurance for tourists with a value of 2.87, where indeed many visitors do not care about this instrument, but it is still possible that in the future this can be a consideration for the managers of Karangsong Village Mangrove Tourism to improve quality in performance implementation. According to the level of tourist expectations.

### Visitor Satisfaction Analysis

The distribution of mangroves in Indonesia, especially in the coastal regions of Sumatra, Kalimantan and Papua Wijayanti [8]. One of the mangrove ecosystem that is currently also used as a tourist place and continues to develop in the future by empowering the surrounding community to carry out integrated and sustainable management, The activities include walking, seeing birds, going to the beach, biota sightseeing and boat riding. Tourism activities that are developed should be tailored to the potential resources and allocation. Prihadi [9] Karangsong mangrove areas are really suitable for tourism and have 82, 95% on index of suitability for mangrove ecosystems Prihadi [9].

The next thing after measuring the level of expectations and performance through IPA analysis is to determine the level of visitor satisfaction using the calculation of the Customer Satisfaction Index (CSI- Customer Satisfaction Index). Following are the results of calculations using the Customer Satisfaction Index in accordance with the steps according to Stratford (2007) by calculating the Importance weighting factors 100% of the total percentage of average interests or weighting factors (Weighting factors), then multiplying the average value of performance with the Importance weighting factors. so that the weight score can be obtained and the sum of the weight score in the form of a Weighted Total. Finally, divide the Weighted Total by the largest scale (5) then multiply by 100% so that the result is 61%. This states that visitors feel “quite satisfied” with the Mangrove Tourism in Karangsong Village. Analysis of the Customer Satisfaction Index (CSI) on Mangrove Tourism in Karangsong Village can be seen in the table below (Table 5). Source processed data.

**Table 5.** Calculation results of the Customer Satisfaction Index (CSI).

SNO.	Average Expectations	Average Performance	GAP P-E	Tki (%)	Importance Weighting Factors	Weight Score
1	4,23	3,3	-0,93	78,01	5,31	17,53
2	4,22	2,91	-1,31	68,96	5,30	15,42
3	4,21	3,23	-0,98	76,72	5,29	17,07
4	4,21	2,98	-1,23	70,78	5,29	15,75
5	4,06	2,91	-1,15	71,67	5,10	14,83
6	4,33	2,96	-1,37	68,36	5,44	16,09
7	4,36	3,49	-0,87	80,05	5,47	19,10
8	4,1	3,07	-1,03	74,88	5,15	15,80
9	4,07	3,15	-0,92	77,40	5,11	16,10
10	4,27	2,88	-1,39	67,45	5,36	15,44
11	4,01	2,87	-1,14	71,57	5,03	14,45
12	4,13	2,9	-1,23	70,22	5,19	15,04
13	4,14	3,07	-1,07	74,15	5,20	15,96
14	4,14	3,02	-1,12	72,95	5,20	15,70
15	4,32	3,3	-1,02	76,39	5,42	17,90
16	4,15	2,94	-1,21	70,84	5,21	15,32
17	4,08	3,28	-0,8	80,39	5,12	16,80
18	4,36	3,33	-1,03	76,38	5,47	18,23
19	4,26	2,84	-1,42	66,67	5,35	15,19
SUM	79,65	58,43	-21,22	1393,83709	100,00	307,71
MEAN	4,19	3,08	-1,12	73,36		
Customer Satisfaction Index						61%

From the results above of the Customer Satisfaction Index analysis on Mangrove Tourism in Karangsang Village, Indramayu Regency, it is said to be "quite satisfied" according to the tourists who come. Because according to Aditiawarman (2000) the scale of the measurement results for the Customer Satisfaction Index (CSI) with a range of 51% -65% is at the level of "Quite Satisfied". Tourists need recreation as a need serving experience. Recreation as a means for satisfying the human need to express inner urges and drives (Torkildsen) [10].

### Chi Square Test

In this Chi Square Test using SPSS software see whether the respondent's background of Age, Sex and Origin of Residence has a relationship to tourist satisfaction.

#### • Gender with Tourist Satisfaction

There is no correlation between the sexes of the respondents with tourist satisfaction, because of the chi square value <chi square table ( $0.107 < 7.78$ ) and the Asymp. Sig value of  $0.948 > 0.1$ . This can be seen from the Chi Square calculation.

#### • Age with Tourist Satisfaction

There is no correlation between the age of respondents with tourist satisfaction, because of the chi square value calculate <chi square table ( $0.664 < 13.36$ ) and the Asymp. Sig value is  $0.956 > 0.1$ . This can be seen from the Chi Square calculation.

#### • Residence with Tourist Satisfaction

There is a correlation between the residence of the respondents with tourist satisfaction, because of the calculated chi square value >chi square table ( $12.503 > 9.37$ ) and the Asymp. Sig value of  $0.056 < 0.1$ . This can be seen from the Chi Square calculation.

Based on the results of data processing using the Chi Square method, the characteristics of respondents who have a correlation to visitor satisfaction are the origin of the place of residence of tourists. The majority of tourists come from within the city of Indramayu or surrounding cities such as Cirebon, Bandung and Majalengka, this indicates that the Mangrove Ecotourism Karangsang Village is still in demand by the people who live not too far from the location of Karangsang Village Mangrove Ecotourism itself. The thing that can be done is to make improvements like those found in quadrant I in order to maintain the satisfaction of visitors and those who have.

Based on Kotler's theory of simple models of marketing, visitor satisfaction based on CSI values and tourist expectations in the Cartesius diagram I quadrant can be used as a first step to understanding the market and tourist needs, then there are several strategies offered that can be taken into consideration. By fulfilling the needs, seeing opportunities and optimizing the potential that is owned, Mangrove Village Tourism in Karangsang is able to get benefits and even better loyalty from tourists who come in the future.

Mangrove ecotourism Karangsang has developed and more good enough compared with the existing mangrove ecotourism area in West Java Province. This would not have happened if management community groups Pantai Lestari do not do well in managing the area. The status of the management is supported with regulation of village Karangsang and local regulation from regent of Indramayu regency. On 2017, Pantai Lestari has already pay tax to government 30 milion rupiah, it's mean that the cashflow of mangrove ecotourism Karangsang is good management. Tourism in coastal areas is

particularly important from the regional point of view where it is one of the largest employers of labour. According from Mr. Eka Tarika, there is more than 50 employee in managing mangrove ecotourism Karangsang during high season, and during low season there is 20 employee. Although not frequently acknowledged, one of the reasons why community-based tourism (CBT) programs are slowed down in their success is because those organizing it ignore the problematic assumptions embedded within the community concept itself (Salazar) [12]. Normally tourism is affected by the degradation of mangrove resources it can also be the source of significant pollution and environmental degradation. With good management, the employee can help give information and education to tourist what to do in areas, this kind activity can prevent the degradation.

Four dimensions are considered equally important for sustainable development (Rozemeijer) [13].

CBT should be economically viable: the revenue should exceed the costs;

CBT should be ecologically sustainable: the environment should not decrease in value;

There should be an equitable distribution of costs and benefits among all participants in the activity; and

Institutional consolidation should be ensured: a transparent organisation, recognised by all stakeholders, should be established to represent the interests of all community members and to reflect true ownership.

The importance of tourism in the major coastal regions was reviewed followed by an examination of environmental issues. Well-designed strategies require adaptation options that are technically feasible, economically viable, and socially and politically acceptable (Losada) [11]. However, many barriers can interruption adaptation development and implementation. The final part examined policies for sustainable tourism growth compatible with environmental stability (OECD) [14]. These included: 1). Integrated national tourism and coastal management policies. This would include tourism promotion compatible with sustainable development and the improvement of tourism demand and supply policies, 2). Overall national development policies for industry, energy, agriculture, need to be compatible with tourism policy to avoid the overuse of coastal resources, 3). Local government should be given incentives and encouragement to implement national environmental policies and to provide strict standards for sensitive tourist regions, 4). Land use policies should be encouraged to achieve both economic and environmental objectives, 5). The necessary infrastructure needed for sustainable tourism development should be financed partly from the proper pricing of natural resources, charges for pollution discharges and tourist usage of environmental services (OECD) [14].

From OECD examined policies above, in mangrove ecotourism Karangsang has already done correctly and has follow the right direction, just have to continue to maintain the standards and quality in management in order to develop more. To increase the suitability index for mangrove ecotourism, reforestation needs to be done to increase the mangrove's density and thickness. To use mangrove forests in a friendly and environmentally manner, ecotourism need community involvement to protect, maintain and manage mangrove ecosystems; that is in itself a concept of ecotourism. In addition, these activities are expected to support the livelihood of communities.



According to Salazar [12] argue that the challenge remains to develop forms of tourism that are acceptable to the various interest groups within communities and that are at the same time economically viable and environmentally sustainable. Finally, to get new customer and good marketing need professionally trained local guides, good promotion with social media (instagram, facebook, twitter), and provided they receive enough incentives for their work (so that they remain motivated to stay), are one of the key elements to achieve sustainable CBT.

## Conclusion

The conclusion from the research results on the Analysis of Marketing Strategy and Tourist Satisfaction on the Quality of Mangrove Tourism Service Products in Karangsang Village, Indramayu Regency as follows:

- From the results of the SWOT analysis, the position of this Mangrove Ecotourism service product is in the position of an expansion strategy. This is because the evaluation of the value of the strength and opportunity factors shows a positive value.
- The internal strength factor possessed by the service product, namely the quality of the scenery that is considered good by visitors, then the level of importance is considered important.
- Weakness factors of internal service products that visitors consider to be lacking are the completeness of tourism support facilities such as quality and quantity of toilets, availability of fresh water, trash cans, places to eat, and others. These factors are considered important by visitors but their respective ratings are not good.
- External opportunity factors that can be used as a basis for development are the increasing public awareness of the environment and the increasing trend of community interest in ecotourism. Then the factor that could be a threat to development is the existence of competition with similar tourism.
- From the measurement results of Importance Performance Analysis, namely in Quadrant I, there are 5 important instruments that are the main priority for improvement in order to increase the level of tourist satisfaction. These instruments are areas of clean tourist attractions, availability of complete public facilities such as toilets, rest areas, prayer rooms, trash cans, places to eat, then clear tourist procedures, ease of reaching tourist attractions including information on tourist attractions and tourism management officers. Who are dressed neatly and clearly. CBT need using frequently social media to get more visitors.
- Based on the Customer Satisfaction Index, it can be seen that the CSI value is 61%. This value is in the interval of 51% - 65%, which means that tourists feel "quite satisfied" with the quality of the mangrove tourism service products in Karangsang Village, Indramayu Regency. Then from the results of the Chi Square test, the characteristics of the respondents that have a correlation with visitor satisfaction are where the tourists live. The majority of tourists come from within the city of Indramayu or surrounding cities such as Cirebon and Majalengka, this indicates that

Karangsang Village Mangrove Tourism is still in demand by people who live not too far from the location of the Karangsang Village Mangrove Tour itself.

## Recomedation

Based on the results of research on the analysis of tourist satisfaction on the quality of mangrove tourism service products in Karangsang Village, Indramayu Regency, the following suggestions can be given:

1. The management of Mangrove Tourism in Karangsang Village should make clear tourism procedures which are the most expected by tourists, one of which can be done by describing tourism activities and introducing flora and fauna when tourists get on the boat from the ticket sales post to the entrance to the tracking area which can simultaneously educate tourists. Then improvement of public facilities at Mangrove Tourism in Karangsang Village. One way of handling it can be done periodically checking by the manager.
2. Then the problem of access to tourist locations can be handled by providing travel instructions to get to the Karangsang Village Mangrove Tourism location so that of course more and more tourists from outside the city / area are coming because based on the results of the Chi Square test it is also found that the place where tourists live affect the level of tourist satisfaction. As well as neat and clear clothes for managers who are considered quite important by tourists who come, of course, so that tourists know clearly the managers of Mangrove Tourism in Karangsang Village.
3. In addition to the improvements made, managers must also be able to market their service products intensively. This can be done because the position of the service product is in an expansion strategy where the value of strength and opportunity still provides a positive value.

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