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Research Paper

Measuring Tourist Satisfaction Index on Attraction, Amenities, Accessibility, and Ancillary Service in Mangrove Tourism Park Angke Kapuk Jakarta

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Abstract

The satisfaction index can be utilized as a means to benchmark against competitors and industry standards, enabling businesses to identify ways to distinguish themselves and gain a competitive advantage. By comparing satisfaction levels, businesses can uncover opportunities for differentiation and establish a stronger position in the market. This study was conducted to find out more about the level of tourist satisfaction with the components of tourism. It analyzes consumer behavior by understanding consumer characteristics, the travel decision process, and the suitability between the attributes offered and those needed by visitors to provide a high satisfaction level. Data research can be collected through surveys, interviews, and observations. The research method used in this study is the Customer Satisfaction Index and Important Performances Analysis with a sample size of 96 respondents being used. Based on the results of the analysis using the Customer Satisfaction Index (CSI) method showed that the respondents were satisfied with the performance of the services provided by the Mangrove Natural Tourism Park, Angke Kapuk. Tourists are satisfied with the Attraction component with a value of 71.7% Then tourists were satisfied with the Amenity component with a value of 70.8%. In addition, tourists are also satisfied with the Accessibility component with a value of 69.0%. Finally, tourists are quite satisfied with the Ancillary Service component with a value of 63.9%. Important Performance Analysis holds significant importance as a strategic tool for tourism managers and researchers. It enables them to evaluate the quality of tourism services and offers valuable guidance on areas that require prioritization for improvement. This analysis serves as a framework for identifying key areas of focus, helping managers and researchers make informed decisions to enhance the overall quality of tourism services.

Keywords *tourist, satisfaction, Mangrove Nature Park accessibility, amenity, attraction*

INTRODUCTION

Indonesia's tourism industry plays an essential role in its economic growth. Based on the Central Statistics Agency, the tourism industry occupies the 2nd position as the most significant contributor to state revenue after oil and gas (Prihandoko et al., 2019). In the last ten years, international tourism has rapidly developed and contributed Rp 280 trillion at the end of 2019. In Indonesia, tourism is the focus and attention of the government (Minardi & Prathama, 2022). In 2015 the Ministry of Tourism and Creative Economy of the Republic of Indonesia explained the number of tourist visits in 2020 was 20 million. Tourism development in Indonesia is to increase the country's foreign exchange, improve the community's welfare, and provide satisfaction and comfort for tourists (Jaelani et al., 2020).

The capital city of Jakarta has a variety of tourist attractions, ranging from marine attractions, religion, history, and culture to recreation and entertainment. Based on the Department of

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Communication, Informatics, and Statistics, in 2018, around 1.8 million domestic tourists visited Jakarta. These tourist visits experienced a growth of 8% from the previous year (Fithriah et al., 2018).

North Jakarta is one of the administrative cities in Jakarta, which has the most nature-based tourist destinations. Marine Tourism, defined as utilizing the marine's natural potential as a tourist attraction or tourism activities carried out either below or above sea level, emerged as an indispensable issue in researching oceans and coastal areas (Vázquez-Martinez, 2019). For this reason, several marine tourism destinations in North Jakarta include Ancol Lagoon Beach, Marunda Beach, Marina Beach, Carnival Beach, and Angke Kapuk Mangrove Nature Park.

One of the mangrove forest ecosystems in the northern part of Jakarta namely Angke Kapuk Nature Tourism Park. This area, located in an elite residential area of Pantai Indah Kapuk in Kamal Muara Village, has natural mangrove attractions that are still lush. Angke Kapuk Mangrove Nature Park is a nature-based tourist attraction – nautical, part of the Angke Kapuk Area, managed by a private company namely Murindra Karya Lestari. This company aims to develop natural tourism while preserving mangrove trees and the function of mangrove plants as a counterweight to coastal areas. It offers a variety of enjoyable recreational activities such as planting and conservation activities for mangrove plants, water tourism (speedboats, rowing boats, toad water bikes, and canoeing boats), as well as lodging.

Mangrove forests, protected tropical coastal vegetation communities, live in humid and muddy areas affected by tides. According to (Alongi, 2008), a mangrove forest is trees that grow in coastal areas that are influenced by tides or coastal ecosystems. Using mangroves for ecotourism is expected to produce a tourist industry activity that can provide a role in environmental conservation. So, using mangrove ecotourism is expected to make both income and sustainability (Friess, 2017).

The research gap in this research measuring tourist satisfaction index refers to the areas where further research is needed to enhance the understanding and effectiveness of measuring tourist satisfaction. Although there are existing scales for measuring tourist satisfaction, there may be a need for more comprehensive and context-specific scales that capture the unique aspects of different tourism destinations and segments. This research focuses on developing and validating measurement scales that better align with the specific characteristics and attributes of various tourist destinations consists attractions, amenities, accessibility, and ancillary service.

Therefore, this study was conducted to find out more about the level of tourist satisfaction with the components of tourism, such as attractions, accessibility, amenity, and ancillary services. It analyzes consumer behavior by understanding consumer characteristics, the travel decision process, and the suitability between the attributes offered and those needed by visitors to provide a high satisfaction level (Zhao et al., 2021). It is hoped that by understanding consumers' characteristics, needs, and desires, Angke Kapuk Nature Tourism Park can provide maximum satisfaction for its consumers.

LITERATURE REVIEW

Important Performances Analysis

Important Performances Analysis (IPA) is typically depicted graphically with a two-dimensional matrix. The vertical axis represents the importance of attributes, while the horizontal axis represents the perceived performance of those attributes. In its simplest form, IPA involves plotting the average importance score against the average performance score for each attribute on this matrix. The original IPA approach introduced a scaled-centered IPA (SC-IPA) matrix, which divided the graph into four quadrants based on different management operational requirements (Martilla, J.A. and James, 1977).

The crosshairs depicting the quadrants are at the neutral centers of the Likert importance and achievement scales. The matrix highlights these attributes that work well and should be maintained (keep up the good work), attributes that require management action/attention (here focus on management), and attributes that fall into the low priority or potentially overwhelming quadrant "declining and therefore necessary" less management focus (Patroni et al., 2018). Conversely, proper focus on overburdened attributes in the "Possible Overkill" quadrant can uncover scarce resources that can be reallocated to correct other underperforming attributes (Parker & Simpson, 2018). Thus, IPA provides managers with a statistically simple indication of which attributes of their operations require more attention, and less attention, and which should be maintained at their current state of resources and performance (Smolčić Jurdana et al., 2017).

This enhanced IPA can be used by high-performing destination operators to maintain or improve their position in highly competitive market segments by identifying those attributes that are underperforming in terms of visitor expectations, or those performance, these properties may lack resources better allocated (Moore & Taplin, 2014). Going forward, this insight enables management to focus on those attributes that can improve visitor satisfaction while minimizing business impact in a win-win manner in tourism destinations. Tourist attitudes are increasingly capable of positively influencing the future management and regulation of wildlife tourism. For these reasons, it is important to understand what is important to the visitor experience and use this knowledge to optimize management interaction can ensure the satisfaction of future visitors and the future well-being of the tourism environment (Newsome et al., 2019) (Ryan & Cessford, 2003).

Customer Satisfaction Index

The Customer Satisfaction Index (CSI) is a theoretical framework and assessment tool utilized to gauge and quantify the degree of customer satisfaction with a product, service, or overall experience (Subramanian et al., 2014). It operates on the principle that contented customers are more inclined to engage in repeat purchases, provide recommendations, and exhibit loyalty toward a business. According to the CSI theory, customer satisfaction is influenced by the disparity between customer expectations and the perceived performance of the product or service. When the perceived performance aligns with or surpasses customer expectations, satisfaction tends to be high. Conversely, if the perceived performance falls short of expectations, customer satisfaction is likely to be low (Tao, 2014).

To measure CSI, data is collected from customers through methods like surveys, interviews, or other feedback mechanisms. Multiple factors and aspects associated with the product, service, or experience, such as quality, reliability, responsiveness, customer service, and value for money, are assessed. The gathered data is then analyzed to compute an overall satisfaction score or index. Businesses can utilize the Customer Satisfaction Index as a strategic tool to identify areas that need improvement, evaluate the effectiveness of customer service initiatives, and monitor changes in satisfaction over time. It offers valuable insights into customer preferences, expectations, and perceptions, empowering businesses to make well-informed decisions to enhance customer satisfaction and foster loyalty.

Several variations and adaptations of the Customer Satisfaction Index exist, with some models incorporating additional factors such as customer loyalty, customer lifetime value, or emotional satisfaction. Overall, the CSI theory and measurement framework help businesses prioritize customer satisfaction as a key driver of success and competitiveness (Cheng et al., 2011).

METHODOLOGY

The diverse characteristics of visitors will affect their mindset regarding the level of importance of the attributes offered at the Angke Kapuk Nature Tourism Park. The characteristics of tourists can be seen in Table 1.

Table 1. Respondents' Demographic

	Distribution of Respondents	Total Persons	Percentage
Gender	Male	56	58.3
	Female	40	41.7
	Total	96	
Age Group	17-27	45	46.9
	28-38	24	25.0
	39-49	19	19.8
	> 49	8	8.3
	Total	96	
Occupation	Student	39	40.6
	Entrepreneur	18	18.8
	Private Sector	19	19.8
	Government Officer	13	13.5
	Others	7	7.3
	Total	96	
Number of Visited	1	51	53.1
	2	23	24.0
	3	13	13.5
	>3	9	9.4
	Total	96	
City Origin	Jakarta	38	39.6
	Tangerang	22	22.9
	Bogor	14	14.6
	Bekasi	13	13.5
	Others	9	9.4
	Total	96	

This study uses quantitative research. Quantitative research is based on the positivist philosophy, used to examine specific populations or samples, data collection using research instruments, and quantitative or statistical data analysis, to test hypotheses that have been set (Antwi & Hamza, 2015). Research subjects are people, places, or objects observed in the context of being called targets. In this study, the subject of the study was the Tourists of the Angke Kapuk Mangrove Natural Tourism Park. Object research is a variable being studied in the area where the research is carried out. In addition, the object of research is something that is at the center of the research problem (Arikunto, 2010). The object research analyzed the tourist satisfaction index of attractions, amenities, accessibility, and additional services in the Kapuk Mangrove Natural Tourism Park using the Importance Performance Analysis (IPA) method.

The population combines all elements in the form of events or people with similar characteristics. It is the primary concern of a researcher because it is seen as an object of study when visiting the Angke Kapu Mangrove Natural Tourism Park (Ferdinand, 2014). The sampling technique used in this study was to use Purposive Sampling. This technique was carried out by determining the sample based on criteria or unique characteristics (Etikan et al., 2016)Due to limited data in the study, where tourist visits or populations were uncertain, in determining the number of sample members from the visitor population Taman Wisata Alam Mangrove, North Jakarta, used the unknown population formula (Wibisono, 2013).

$$n=((Za \cdot Zo)/e)^2$$

$$n = \frac{((1.96).(0.25))}{0,05}2 = 96.04$$

n = 96 respondents

Information:
n = number of samples
Za/Zo = Value z is a 95% confidence level of 1.96
e = 5% error rate
σ = standard deviation of the population (estimation of samples with a representative of 0.05 x 0.05 = 0.25

Analysis Methods

The method used in this study is to use descriptive analysis techniques. This technique generates an overview of the collected data based on the respondent's answer. The presentation of the collected data will be discussed descriptively, then tabulated into a panel tab or diagram by calculating the frequency and presentation as a quantitative analysis where the respondent's answer to the given question will be explained (Marshall & Jonker, 2010).

a. Validity Test

This study uses a validation test to determine whether or not a research questionnaire is valid. A questionnaire is declared valid or not if the questions can express something that will be measured by the questionnaire (Ghozali, 2016).

b. Reliability Test

Reliability is a measuring instrument of a questionnaire indicator of a variable. If a questionnaire's answer is consistent or stable over time, then the questionnaire will be said to be reliable. The assessment criteria are if the alpha value < 0.60, then the variable is not reliable, and if the alpha value is > 0.60, is reliable.

c. Customer Satisfaction Index

Consumer Satisfaction is a method that uses an index to measure the level of consumer satisfaction based on certain attributes (Pizam et al., 2016). The attributes used in this study consisted of 30 points based on the dimensions of attraction, amenities, accessibility, and ancillary services.
The stages of the analysis method carried out are:

1. Specifies the Mean Importance Score (MIS) and Mean Satisfaction Score (MSS), which are values derived from the average performance of each attribute and importance level. The values of MIS and MSS can be calculated using the following equation:

$$\text{MIS} = \frac{\sum yi}{n} MSS = \frac{\sum xi}{n}$$

   Information:
   n = number of respondents
   yi = importance value of i-th attribute
   xi = performance value of the i-th attribute

1. Using the Weighted Factor (WF) function, the Mean Importance Score or the average value of the importance level (MISi) of each attribute is expressed in percent form against the total Mean Importance Score (MISi) for all attributes tested. The WF value can be obtained using the following equation:

$$MFi = \frac{MISi}{Total\ MISi}$$

2. The weighted Score (WS), a function of the Mean Satisfaction Score, is then multiplied by the Weighted Factor (WF). The mean satisfaction score (MSS) is obtained from the average or performance level value.

$$WSi = MSSi.\ WFi$$

Information:
MSSi = I-th Mean Satisfaction Score
WFi = I-th Weighted Factor

3. Using the Total Weighted Average (WAT) calculation, the function is from the total Weighted Score (WS) of the 1st attribute (a1) to the nth attribute (an).
   WAT = WSa1 + WSa2 + ... + WSan
   Information:
   WSa = Weighted Score
4. Calculation of Customer Satisfaction Index (CSI), by the Weighted Average (WA) value divided by the results of the Highest Scale (HS). The maximum scale obtained from the Likert scale was used in weighing the level of importance and workers.

$$CSI = \frac{WA}{HS}\ x\ 100\%$$

Information:
WA = Weighted Average
HS = Highest Scale (maximum scale)

Table 2. CSI Criteria and Values

Kriteria CSI	Nilai CSI
81% – 100%	Very Satisfied
66% – 80%	Satisfied
51% – 65%	Quite Satisfied
35% – 50%	Less Satisfied
0% – 34%	Not Satisfied

d. Importance Performance Analysis (IPA)
This Important Performance Analysis (IPA) can be used to measure attributes of importance and level of performance that are useful for developing effective marketing programs or strategies (Deng, 2008). The results of this analysis can be used as a basis for management to make decisions on what should be done to improve the company's performance and increasing customer satisfaction improving the company's performance and increasing customer satisfaction.

$$Tki = \frac{Xi}{Yi}\ x\ 100\ \%$$

Tki: Suitability Level
Xi: Performance Appraisal Score
Yi: Interest Score

Then the second step to simplify the numbers into cartesian diagrams can be done by dividing each of the total importance and level of performance by the number of respondents. With the following formula:

$$\underline{Xi} = \frac{\sum Xi}{n}\ \underline{Yi} = \frac{\sum Xi}{n}$$

Information:
$\bar{\bar{X}}$ = Average score of each attribute i at the performance level
$\bar{\bar{Y}}$ = Average score of each attribute i at importance level
ΣXi = Total score on each attribute i at the execution level of all respondents
ΣYi = Total score on each attribute i at the execution level of all respondents

n = Total Respondent

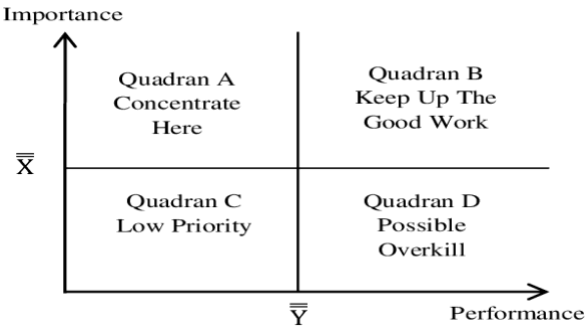

Figure 1. Cartesian Diagram of IPA

FINDINGS AND DISCUSSIONS

Validity Test
The value of r^{table} with the condition n = 96 and a significant rate of 5%, then the number obtained = 0.361. The following is a table of data processing results from observations made to 96 respondents with 30 questions.

Table 3. Validity Test

No.	Performance			Importance		
	R^{count}	R^{table}	Information	R^{count}	R^{table}	Information
			Attractions			
1	0.896	0.361	valid	0.855	0.361	valid
2	0.907	0.361	valid	0.887	0.361	valid
3	0.864	0.361	valid	0.842	0.361	valid
4	0.899	0.361	valid	0.858	0.361	valid
5	0.873	0.361	valid	0.765	0.361	valid
6	0.571	0.361	valid	0.667	0.361	valid
7	0.890	0.361	valid	0.871	0.361	valid
8	0.857	0.361	valid	0.893	0.361	valid
			Amenity			
9	0.824	0.361	valid	0.862	0.361	valid
10	0.817	0.361	valid	0.806	0.361	valid
11	0.822	0.361	valid	0.785	0.361	valid
12	0.779	0.361	valid	0.830	0.361	valid
13	0.876	0.361	valid	0.835	0.361	valid
14	0.876	0.361	valid	0.912	0.361	valid
15	0.795	0.361	valid	0.841	0.361	valid
16	0.870	0.361	valid	0.856	0.361	valid
			Accessibility			
17	0.683	0.361	valid	0.865	0.361	valid
18	0.818	0.361	valid	0.792	0.361	valid
19	0.873	0.361	valid	0.854	0.361	valid
20	0.882	0.361	valid	0.852	0.361	valid
21	0.816	0.361	valid	0.847	0.361	valid
22	0.841	0.361	valid	0.854	0.361	valid

23	0.855	0.361	valid	0.835	0.361	valid
			Ancillary			
24	0.882	0.361	valid	0.840	0.361	valid
25	0.810	0.361	valid	0.785	0.361	valid
26	0.884	0.361	valid	0.830	0.361	valid
27	0.889	0.361	valid	0.883	0.361	valid
28	0.869	0.361	valid	0.850	0.361	valid
29	0.785	0.361	valid	0.789	0.361	valid
30	0.838	0.361	valid	0.783	0.361	valid

The table above shows that all statements on the variable factors of attraction, amenity, accessibility, and ancillary are declared valid because the calculated value of r is greater than the r of the table. The provision is valid if r > r is critical or r > r^{table}. With a total of 96 respondents, If r ≥ 0.3, then the items are declared valid.

Reliability Test
The criteria for a research instrument are reliable using this technique. If the cr value > 0.6.

Table 4. Reliability Test

Performance		Interests	
Cronbach's Alpha	Information	Cronbach's Alpha	Information
	Attractions		
0.934	Valid	0.932	Valid
	Amenity		
0.936	Valid	0.940	Valid
	Accessibility		
0.908	Valid	0.932	Valid
	Ancillary		
0.933	Valid	0.918	Valid

Reliability test on the four components of attraction, namely attraction, amenity, accessibility, and ancillary for performance level, the Cronbach Alpha value > 0.6 is declared reliable.

Customer Satisfaction Index (CSI)
The Customer Satisfaction Index (CSI) calculation is used to assess the overall satisfaction index of visitors to the Angke Kapuk Natural Tourism Park. Their results are obtained from the average level of importance and performance score. The results of the calculation of the overall visitor satisfaction index for their visit to the Angke Kapuk Natural Tourism Park can be seen in Table 5.

Table 5. Customer Satisfaction Index

Attribute	MSI	MSS	Wfi	Wsi	Csi	Conclusion
Attractions						
1. Diversity of rides	3,83	3,71	0,13	0,47		
2. Environmental comfort	3,86	3,71	0,13	0,48		
3. Mangrove tracking	3,89	3,68	0,13	0,48		
4. Bird watching	3,77	3,62	0.13	0,45	71.7%	**Satisfied**
5. Speed boat	3,70	3,60	0,12	0,44		
6. Canoeing Boat	3,43	2,85	0,11	0,32		
7. Animal Diversity	3,70	3,62	0,12	0,45		
8. Plantation diversity	3,90	3,79	0,13	0,49		

Amenities						
9.	Seat availability	3,89	3,70	0,13	0,48	
10.	Toilet cleanliness	3,84	3,37	0,13	0,43	
11.	Entrance ticket price	3,81	3,62	0,13	0,46	
12.	Parking lot	3,94	3,56	0,13	0,47	70.8% **Satisfied**
13.	Souvenir shop	3,63	3,48	0,12	0,42	
14.	Restaurant/café/canteen	3,82	3,61	0,13	0,46	
15.	Food/drink prices	3,64	3.20	0,12	0,39	
16.	Cottage	3,71	3,56	0.12	0,44	
Accessibility						
17.	Road conditions	4,04	3,21	0,13	0,43	
18.	Common transportation uses	3.90	3,60	0,13	0,47	
19.	Availability of signage boards	4,02	3,90	0,13	0,52	
20.	Telecommunication signal	4,00	3,82	0,13	0,51	69.0% **Satisfied**
21.	Online map	4,09	3,96	0,4	0.54	
22.	Entrance	3,92	3,78	0,13	0,49	
23.	Attraction access out	3,89	3,80	0,13	0.49	
Ancillary Service						
24.	Information center services	3,92	3,75	0,13	0,49	
25.	Conditions of places of worship (mussola)	3,64	3,62	0,12	0,44	
26.	www.jakartamangrove.id Website	3,89	3,83	0,13	0,50	63.9% **Quite Satisfied**
27.	@TWAMangorve Instagram Account	3,86	3,77	0,3	0,48	
28.	Clarity of the regulatory board	3,99	3,86	0,13	0,51	
29.	Children's playground facilities	3,54	3,31	0,12	0,39	
30.	Tour guide services	3,52	3,30	0,12	0,39	

Based on the perception of tourists towards the level of satisfaction in component 4A, it is stated following the CSI (*Customer Satisfaction Index) Assessment* Criteria:

1. Tourists are satisfied with the Attraction component with a value of 71.7%
2. Tourists are satisfied with the Amenity component with a value of 70.8%
3. Tourists are satisfied with the Accessibility component, with a value of 69.0%
4. Tourists are quite satisfied with the Ancillary Service component, with a value of 63.9%

This study uses the Customer Satisfaction Index to measure tourists' satisfaction levels. The study involved 96 tourists or visitors to the Mangrove Natural Tourism Park, Angke Kapuk. Based on the Customer Satisfaction Index or CSI results, we can determine the level of customer satisfaction from the Components of Attractions, Amenities, and Accessibility, being in the satisfied category. In contrast, the Ancillary Service component is in the category of quite satisfied. This index indicates that tourists or visitors to the Mangrove Natural Tourism Park, Angke Kapuk feel satisfied with the tourism components mentioned.

Importance Performance Analysis (IPA)

Measuring customer satisfaction with the IPA method can provide an idea of the attributes that must be maintained, improved, and redundant through the quadrants present in the Cartesian diagram. The data used in the processing *of Importance Performance Analysis* (IPA) is data on the level of importance and performance for each research attribute obtained from disseminating research questionnaires to 96 respondents. The following are the results of *the Importance Performance Analysis* (IPA).

Table 6. Average Value of Performance and Importance Level

Attribute	Indicators	Performance	Importance
1	Diversity of rides	3.7	3.8
2	Environmental comfort	3.7	3.9
3	Mangrove tracking	3.7	3.9
4	Bird watching	3.6	3.8
5	Speed boat	3.6	3.7
6	Canoeing Boat	2.9	3.4
7	Animal Diversity	3.6	3.7
8	Plantation Diversity	3.8	3.9
9	Seat availability	3.7	3.9
10	Toilet cleanliness	3.4	3.8
11	Entrance ticket price	3.6	3.8
12	Parking lot	3.6	3.9
13	Souvenir shop	3.5	3.6
14	Restaurants/café/canteen	3.6	3.8
15	Food/drink prices	3.2	3.6
16	Cottage	3.6	3.7
17	Road conditions	3.2	4.0
18	Common transportation uses	3.6	3.9
19	Availability of signage boards	3.9	4.0
20	Telecommunication signal	3.8	4.0
21	Online map	4.0	4.1
22	Entrance	3.8	3.9
23	Attraction access out	3.8	3.9
24	Information center services	3.8	3.9
25	Conditions of places of worship (Mussola)	3.6	3.6
26	www.jakartamangrove.id Website	3.8	3.9
27	@TWAMangorve Instagram Account	3.8	3.9
28	Clarity of the regulatory board	3.9	4.0
29	Children's playground facilities	3.3	3.5
30	Tour guide services	3.3	3.5

Based on the results for the level of performance in the table, the attribute that is very good performance according to the respondents is attributed to number 21 the location can be easily found on online maps such as google maps, Waze, etc. This result can be seen from the average performance with the highest score of 4.0 and shows providing services regarding accessibility components by making it easier for tourists to find tourist locations on digital maps. In comparison, the attribute with the lowest performance value is attribute 6, namely the canoe/boat rental price at the tourist attraction, with the lowest score of 2.9. According to tourists' perception, the cost of canoe/boat rentals is too high.

The following calculations will be plotted on a scatter chart, with a value of $\bar{\bar{x}}$ for a performance level of 3,700 and an interest of 3,400 as the midpoint of the axis. The results of mapping the average value of these attributes can be seen from most of the attributes – Attractions, Amenity, Accessibility, and Ancillary Services in Quadrant 1 with as many as four attributes, Quadrant 2 as many as 20 attributes, Quadrant 3 as many as four attributes, and Quadrant 4 as many as two attributes.

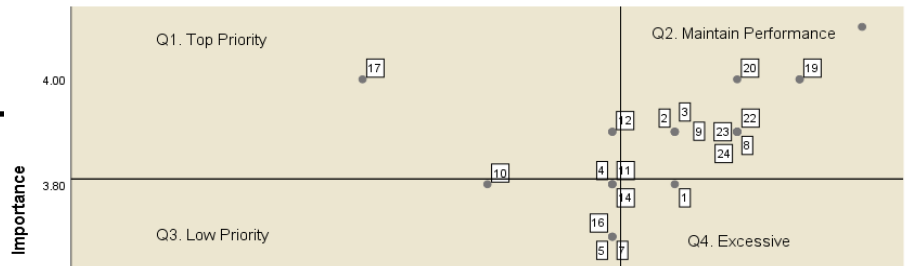

Figure 2. Cartesian Diagram – *Importance Performance Analysis*

Quadrant 1: Top Priority

In this quadrant, the level of importance is high, but the level of performance is low. The results showed that respondents considered research attributes important, but the performance was rated inadequate. Thus, it is necessary to improve the performance of the variable attribute in this quadrant. The attributes included in this quadrant are attributes 12,17,18.

Quadrant 2: Maintain Performance

In this quadrant, the level of importance and performance is high. The results show that in these quadrants, attributes are considered important by the respondent, and the performance is rated high. It is only necessary to maintain the performance of these attributes. The attributes included in this quadrant are attributes 2,3,8,9,19,20,21,22,23,24,26,27,28,

Quadrant 3: Medium-Low Priority

In this quadrant, the level of importance and performance is high but still below average. The results show that consumers' level of interest in the services received is high but has not carried out their duties optimally to improve performance. The attributes included in this quadrant are attributes 4,5,6,7,10,11,13,14,15,16,25,29,30

Quadrant 4: Excessive (Reduce Emphasis)

This quadrant shows that attributes that affect tourists are less critical. Still, the performance of destination management in their implementation is excessive—considered less necessary by tourists. The attributes included in this quadrant are attributed to 1.

In contrast to prior research, these findings contradict the established understanding, highlighting the need for further investigation. According to (Rahma, 2018) the findings indicate that tourists' satisfaction with the West Coast of Pangandaran is satisfactory due to the availability of adequate facilities and security. The significance of this research lies in the inclusion of tourist accessibility in the research objectives. However, it should be noted that the study solely relied on qualitative analysis, which limits the accuracy of measuring the satisfaction index. Also finding research conducted by (Pantiyasa & Prabawati, 2020) The significance of this research lies in its analysis of customer satisfaction using the CSI and IPA methods primarily focusing on tourism attractions and the management of facilities, omitting discussions on attitudes and behavior.

CONCLUSIONS

Based on the analysis using the Customer Satisfaction Index (CSI) method, it can be concluded that the respondents were satisfied with the services provided by Mangrove Natural Tourism Park,

Angke Kapuk. The tourists expressed satisfaction with the Attraction component, Amenity component, Accessibility component, and Ancillary Service component, which are the key factors contributing to their overall satisfaction with the park. Using the Importance Performance Analysis (IPA) method, it was found that certain attributes fell into different quadrants. Three attributes were identified as the top priority and require improvement in terms of performance. Thirteen attributes were categorized as maintaining achievements and should continue to be enhanced. Thirteen attributes were considered of low priority and needed improvement, while one attribute was deemed redundant. The management should focus on improving attributes related to ancillary services, such as children's playgrounds and tour guide services. Regular check-ups and continuous development of attraction components, amenities, accessibility, and ancillary services are essential for devising strategies to maximize tourist satisfaction. Collaboration and participation from various stakeholders, including the tourism association in North Jakarta, are necessary for the ecotourism development of Mangrove Natural Tourism Park. Implementing the Pentahelix approach involving academics, businesses, the community, the government, and the media can contribute to the further growth and alignment of tourism development with local government policies.

In summary, the study highlights the overall satisfaction of tourists visiting Mangrove Natural Tourism Park, identifies areas for improvement based on the Importance Performance Analysis, emphasizes the need to enhance certain attributes related to ancillary services, and suggests collaborative efforts for ecotourism development..

LIMITATIONS & FURTHER RESEARCH

The limitation of this research is that there is no guarantee that tourists who respond to all attributes experience each attribute correctly. Future studies should add a 'not applicable' column to the Likert scale to minimize bias. For further investigation, a survey should be conducted not only at the main entrance but also at other places within the boundaries of the Angke Kapuk Mangrove Nature Park to reduce the potential for response bias. To ensure normal data distribution, the sample size must be large.

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