

## **Importance-Performance Analysis (IPA) Approach of Marine Park Tourism Destinations: A Case Study of Kapas Island Marine Park, Terengganu**

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### **ABSTRACT**

Tourism in the marine park is vital to tourist satisfaction. Tourism and sustainability must be balanced in sensitive regions like marine parks. Tourist feedback helps balance and sustain marine park management. Kapas Island Marine Park (KIMP) in Terengganu receives a high number of tourists annually. The resources and the tourist experience may be adversely affected by excessive utilisation of marine resources. It may have long-term effects on the travel industry. This research has adopted an Importance-Performance Analysis (IPA) to scrutinise how visitors view the execution of 23 attributes of KIMP. The objective of this study is to show that various tourism attributes affect tourist satisfaction, as well as to discover the satisfaction- and dissatisfaction-generating attributes that may be found in the marine tourism experience. In addition, this research discusses how IPA may be used to influence future visitor research and management at marine park sites. The findings of this research were obtained by a questionnaire survey of 310 visitors to the KIMP during May and June 2022. The results are displayed on a grid with four quadrants; facilities are available to ensure the safety and security of the visitors (Quadrant One); attributes are already providing good service, and therefore, performance must be

sustained (Quadrant Two); the fundamental amenities or necessities as seen by visitors (Quadrant Three); attributes that have a low significance score but obtained a high-performance score (Quadrant Four). These findings potentially provide a reference for thorough development strategies for a marine park tourism destination.

*Keywords:* Importance-Performance Analysis, marine park, tourism, visitor experience, satisfaction, Kapas Island

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## INTRODUCTION

Tourism destinations offer a wide range of unique tourism experiences and crucial elements in promoting a country (Ling et al., 2022). Tourism is a form of service and experience, and these are attributed to visitor satisfaction. Due to the increasing competitiveness in the tourist industry, the importance of investigating tourism experiences has increased (Sharma & Nayak, 2019). Businesses in the tourism industry that excel in providing outstanding client experiences stand to enjoy long-term competitive benefits (J. H. Kim, 2017). Additionally, satisfaction is a complex human phenomenon that encompasses the intricate cognitive, emotional, and unresearched physiological, psychological, and physiological aspects of the vacation spot. Visitor pleasure is a culmination of emotional states brought on by engaging in tourism experiences.

Numerous scholars have studied the relationship between satisfying tourist experiences and visitor contentment. Notably, Simon et al. (2020) found that tourists to Kota Kinabalu, Sabah, reported higher levels of satisfaction, perhaps as a result of the city's attractive attractions and the natural ambience of its tourist destinations. Similar research was conducted by Ziegler et al. (2012) on wildlife tourism on the Mexican island of Isla Holbox, revealing the impact of deceptive advertising, traffic congestion, tour fees, and inadequate information on visitor satisfaction. In the context of adventure tourism in India's mountainous Uttarakhand region, Bagri and

Devkant (2015) emphasised the significance of visitor satisfaction with destination features. The study identified important characteristics, enabling management to adjust their focus to guarantee the highest visitor pleasure.

Marine parks hold a distinct status as a favoured tourism destination across various nations. While many countries designate marine parks for conservation purposes and biological significance, they also serve as prominent attractions for tourists, particularly in tropical countries. Ibrahim et al. (2023) mentioned that the government and non-government organisations must prioritise biodiversity conservation according to Malaysia's National Policy on Biological Diversity. The Malaysian government relies extensively on marine tourism as a source of revenue; hence, it has become one of the tourism sectors with the largest growth (Adam et al., 2019). Tourists prefer visiting marine protected for their unique habitats and stunning scenery, making them significant ecotourism attractions (F. Chen et al., 2020). Leh et al. (2021) stated that the tourism sector strongly impacts the Gross Domestic Product (GDP) of many nations worldwide, namely Malaysia.

The demand from the tourism sector has directly or indirectly spurred the necessity for facilities and services within marine environments. Providing amenities and tourist services is pivotal in shaping the inclusive traveller experience (Kumar et al., 2023). The correlation between visitor experiences and their support for marine

park conservation has been extensively explored in previous studies (Nian et al., 2019). Positive experiences often lead to favourable attitudes towards conservation endeavours (Eriksson et al., 2019). The demand for marine tourism has necessitated the identification of specific types of facilities and services. It serves the purpose of averting unbridled development without adequate planning information. In sensitive marine park areas, unplanned development can potentially contribute to long-term adverse effects (Hassan et al., 2022). Moreover, it is imperative to ascertain the efficacy of a given tourism product in meeting visitors' needs while within the marine park. It can assist tourism operators in planning and managing their products more cost-effectively (Higham et al., 2021).

One of the most popular applied methodologies in assessing tourism services is the Importance-Performance Analysis (IPA). Applying IPA studies provides a means by which visitors to a given geographical site can judiciously gauge the perceived significance attributed to various attributes inherent to their selected tourism destination. Subsequently, these visitors undertake an evaluative assessment of the actual performance exhibited by these identified attributes, thus establishing a comprehensive framework for analysis (Coghlan, 2012). Boley et al. (2017) suggested that researchers can use IPA to dynamically discover discrepancies between stakeholders' emphasising the value of a given characteristic destination's reality performance in managing that attribute. Lai

and Hitchcock (2015) justify that the IPA technique is a common way to figure out which crucial parts should be emphasised to improve visitor satisfaction.

Due to its simplicity and straightforward results, the IPA technique has been widely used in many different fields for analysing the food industry (Hong et al., 2020), healthcare services (Lee, 2015), adventure tourism (Bagri & Devkant, 2015), city tourism (Irwana et al., 2015; Sasithornwetchakul & Choibamroong, 2019), education (McLeay et al., 2015) and wildlife tourism (Nguyen et al., 2021; Ziegler et al., 2012). Nonetheless, the current research focusing on visitor contentment with the tourism encounter in marine parks remains relatively limited. In most marine parks, most studies have focused extensively on life sciences research, such as ecology and fisheries, alongside investigations into physical elements like water quality. This study employs an IPA approach within a marine park setting to determine visitor satisfaction assessments on the importance and satisfaction of KIMP's tourism products. In addition, this study also discerns the influence of diverse tourism attributes on visitor contentment while identifying the factors that contribute to both satisfaction and dissatisfaction within the marine tourism experience.

## LITERATURE REVIEW

### Visitor Satisfaction and Tourism Experiences

Generally, the long-term survival of nature-based tourism experiences depends on assessing visitor satisfaction, especially

in marine tourism areas. According to Marasinghe et al. (2021), visitor satisfaction surveys are frequently used to acquire comprehensive data on a destination's visitors' characteristics, preferences, expectations, and experiences. Chan and Saikim (2022) revealed that tourists' motivations and expectations are related to aspects of the ecotourism experience. Pratiwi et al. (2022) strongly agree that visitors will share their tourism experience and revisit the destination if satisfaction is achieved.

According to Marasinghe et al. (2021), the definition of satisfaction can be described by the contrast between a visitor's expectation of the destination (Importance) and the experience that yields the visitor's level of satisfaction (Performance). These indicators are usually used for measuring visitor experience or service quality. The tourist's views of these attributes in a place combine to build an amalgamated sense of place, influencing individuals' overall pleasure (Hong et al., 2020). Many tourism studies used satisfaction with certain attributes to represent choice and preferences (Mohamed et al., 2021). Furthermore, the importance of attributes gained via experience may not be equal. Hence, a destination's feature may have various meanings for different tourists and contribute differently to total pleasure.

Consequently, determining the features of a product or service most relevant to overall quality, as perceived by customers, is crucial to tourism marketing and management (Taplin, 2012). The economic

and social effects of COVID-19 outbreaks have been extremely detrimental, and the tourism sector also has been severely affected. Particularly in the context of tourism, it has altered commercial practises, social interactions, and human behaviour (Kele et al., 2020). After the COVID-19 outbreaks, visitors' satisfaction is crucial for the tourism sector. Pai et al. (2020) mentioned that visitors' satisfaction is essential in predicting behavioural intention. Satisfaction is a critical concern in the tourism industry since it may influence its achievements (Sapari et al., 2013).

Currently, Malaysia has maintained 48 state-level marine parks. KIMP is one of the marine parks that was established recently to boost the tourism industry further in the eastern coastal areas of the peninsula. When resources in marine parks are over-utilised and have the potential to affect visitor experiences, conflicts arise between conservation and marine ecotourism developments. Visitor experiences significantly influence the level of visitor satisfaction. The long-term viability of the marine tourism industry depends on how enjoyable it is for visitors. Simpson et al. (2020) mention that the satisfaction of visitors indicates the quality of products or services provided, as such tourism experiences should live up to visitors' expectations. Arnberger et al. (2023) mentioned that successfully managing marine park tourism necessitates a dual focus: appraising the quality of visitor experiences and protecting the natural environment.

**Importance Performance Analysis**

The IPA is an important method designed for marketing but has since been widely used in a variety of industries. Martilla and James (1977) initially established the IPA approach, which has been frequently utilised in tourism studies as an essential indicator of visitors’ satisfaction levels in domestic and international research. Feng et al. (2014) justify that the IPA is a prevalent phenomenon since it is simple to use, and the outcomes are easy to understand. It is about how satisfied the tourists are with a service’s performance expectations (Lai & Hitchcock, 2015).

Martilla and James (1977) have suggested that in applying the IPA method to interpret consumer satisfaction, organisations should consider both attribute priority and attribute execution. Till now, tourism research has been using the approach to assess visitors’ satisfaction with places or tourism services. According to Ortigueira-Sánchez et al. (2017), IPA has been successfully applied in several customer satisfaction surveys. Hong et al. (2020) have mentioned that tourist satisfaction is an important marketing tool in the tourism industry, and it is used to develop marketing strategies. The quadrants are characterised as follows:

- i. Quadrant One: Concentrate here: low performance and high importance
- ii. Quadrant Two: Keep up the good work: high performance and high importance
- iii. Quadrant Three: Low priority: low performance and low importance

- iv. Quadrant Four: Possible overkill: high performance and low importance

The four quadrants in the IPA (Figure 1) contain the attributes that could be utilised as the source for exploring strategies for marketing marine tourism products.

<p>QUADRANT ONE Concentrate Here High Importance, Low Performance</p>	<p>QUADRANT TWO Keep up the good work High Importance, High Performance</p>
<p>QUADRANT THREE Low Priority Low Importance, Low Performance</p>	<p>QUADRANT FOUR Possible Overkill Low Importance, High Importance</p>

Figure 1. The IPA grid by Martilla and James (1977)

The components in the upper left corner (Quadrant One) are rated very important, but the level of satisfaction is low. The attributes included in this quadrant should be highlighted since they are significant but do not reach the standard of visitor satisfaction. The attributes in the upper right corner (Quadrant Two) are hugely noteworthy and highly satisfying. It clearly shows that the attributes in this quadrant must keep functioning smoothly. The importance of the left bottom component (Quadrant Three) is low, and satisfaction is poor. The attributes in this quadrant are not particularly important, and their priority is low.

Lastly, the attributes in the bottom right quadrant (Quadrant Four) are less important, yet they provide high satisfaction. It demonstrates that the attributes in this quadrant are not particularly important,

but they boost tourist satisfaction because they may be excessive in source or number. According to Simpson et al. (2020), IPA gives a statistically straightforward indicator of which aspects need to be paid more attention to, less attention to, or should be kept at the same level of resources and performance.

The value of IPA is calculated by evaluating visitor judgments on importance and satisfaction. Taplin (2012) has mentioned that the IPA technique may provide practitioners with informative data on assessing visitor satisfaction and identifying characteristics of a marine tourism site that may be of concern using a clear visual format. It is crucial for long-term assessment and research to minimise the unwanted effects of developing marine tourism destinations whilst maintaining high visitor satisfaction.

## METHODS

The findings of this research are noteworthy in that they could help develop marketing strategies grounded on the appeals of marine leisure tourism customers. Other than that, the findings can offer the essential details that could lead to the generation of a national marine policy. This research uses a quantitative method based on the IPA method to determine the value of several aspects of the overall marine tourist experience at KIMP. A review of the studies led to the identification of various attributes, and lastly, the findings were concluded in the four quadrants. There are three main steps in a regular IPA procedure. The first step is

choosing a set of attributes. Following that, participants must identify the significance and performance of the attributes (J. Chen et al., 2022).

Martilla and James (1977) have mentioned that using the IPA graph, four quadrants with distinct interpretations could be developed by having the y-axis represent importance while the x-axis represents performance. The IPA methodology serves as a vital analytical tool for policymakers, offering a visual representation of a four-quadrant framework that guides managerial decision-making based on the performance and significance ratings assigned to various attributes (Jin & Park, 2019).

## Study Site

The research was conducted at KIMP in Terengganu, Malaysia (Figure 2). Geographically, KIMP is situated along the eastern coast of Peninsular Malaysia, delineated by the coordinates of approximately latitude 5.2190N and longitude 103.2469E of Marang district. The island spans just over 2 kilometres in length and approximately 1 kilometre in width. It is positioned roughly 4 kilometres south of Kuala Terengganu. Access to KIMP is conveniently facilitated through speedboat transportation operating from the Marang jetty. KIMP is close to tourism during the annual monsoon season, prevalent along the east coast, from November to March. KIMP is notably acclaimed for its exceptional coral reef ecosystems, encompassing a diverse spectrum of commercial fish species and immaculate white dunes (Islam et al., 2017).

Adam et al. (2022) mentioned that marine areas are extremely valuable and provide numerous recreational activities for visitors. Recreational activities such as snorkelling, scuba diving, canoeing, boating, and picnicking are popular among visitors. The primary attraction for the diver is World War II remnants found five nautical miles offshore. Furthermore, squid jigging around the island is a popular recreational activity and a significant source of revenue for the local fishermen. Snorkelling is the most well-known tourism activity in KIMP (Jaafar & Maideen, 2012; Safuan et al., 2021). Due to the small island, KIMP is not a major marine park tourism destination, but it has a developed tourist market with one dive centre and fewer than 10 resorts (Reef Check Malaysia, 2021).

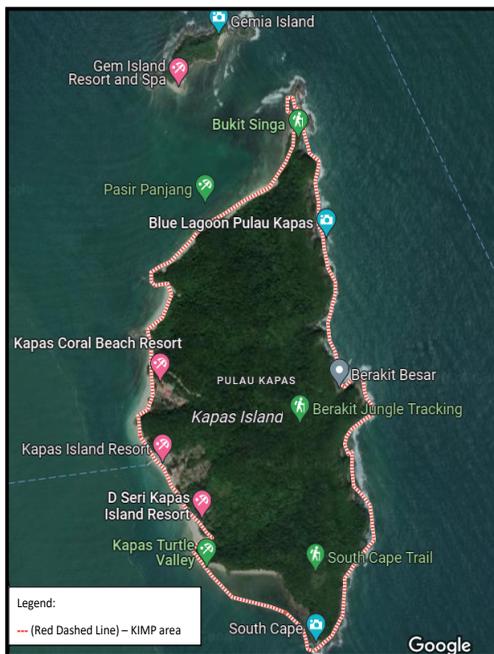


Figure 2. The map of KIMP (the whole of Kapas Island) as a research area

## Questionnaire Design

A questionnaire was used as a survey method in this study. A review of relevant past studies led to identifying 14 attributes, which were presented and discussed in a focus group with professionals from the tourism industry in February 2022. The questionnaire consists of two sections: (1) the importance of the attributes and (2) the performance of the attributes. The respondents need to rate both sections at the same time. A five-point Likert-style scale is used to score the items in both parts from 1 = “not at all important” to 5 = “extremely important,” as well as from 1 = “not at all satisfied” to 5 = “very satisfied,” are the respective scales.

Each performance and importance attribute’s mean was computed and mapped out in a grid where the importance value is listed on the y-axis and the performance value on the x-axis. In social science research, 50% of the response proportion is deemed adequate and significant response bias can be eliminated with a response rate of at least 65% (Luck & Porter, 2019). After being originally written in English, the questionnaire’s final version was also translated into Malay to capture a wider range of understanding of local respondents. The data were scrutinised using SPSS® Statistics and Microsoft Excel.

## Sampling and Data Collection

Convenient sampling was applied, and domestic and foreign visitors to KIMP were sampled. If a questionnaire is implemented as a tool for the research based on the

statistical analyses that were carried out, the minimal sample size is between 100 and 200 respondents (Fugard & Potts, 2015). The sample size must be substantial enough to guarantee that the survey can represent the study population. After being originally written in English, the survey's final version was also translated into Malay to capture a wider range of understanding of local respondents. In the present study, 350 questionnaires were given out to get the appropriate responses. However, there were only 310 acceptable questionnaires, which led to an 88.57% response rate. The main justifications for not answering the survey were the need for privacy or simply an unwillingness to participate. Those who chose not to fully complete the survey and did not return their questionnaire were considered non-respondents.

Data collection occurred from May to June 2022, primarily on weekends and public holidays. A face-to-face interview was conducted with one volunteer participant (18 years old and above) from each visitor group. This method ensures a full response rate and high-quality data since it allows the enumerators to assist the respondents in answering the questions as accurately as possible (Nadirah et al., 2020). The respondents were briefed on the survey details by trained enumerators who conducted the interviews. Enumerators first introduced themselves before requesting approval to conduct the survey. Enumerators described the purpose of the survey and displayed the relevant approval letter from authorities after receiving an affirmative answer from the respondents to participate.

## RESULTS AND DISCUSSION

### Socio-demographic Characteristics of Respondents

Table 1 shows the respondents age range from 18–25 years (35.5%), 26–33 years (24.5%), 34–41 years (15.5%), 42–50 years (13.5%) and lastly 51 years (11.0%). Most respondents are female (51.0%), and only 49.0% are male. During the survey, female respondents were easier to approach to participate in the survey compared to male respondents. The descriptive results show that most of the respondents are Malay (93.9%), followed by Chinese (4.8%), Indian (1.0%), and another category (0.3%).

The result reports that most respondents are married (51.9%), followed by single (47.7%) and lastly, 0.3% come from another category, either a widow or widower. In terms of education level, the majority have a diploma/bachelor's degree (70.0%), followed by secondary school (21.6%), master's or PhD holders (6.8%), primary school category (1.0%) and lastly, skills certificate category (0.6%).

The largest type of occupation among respondents is in the private sector (42.3%), followed by the government sector (25.5%). Only 20.6% are students, followed by retirees (4.8%), self-employed (3.2%), own business (2.9%) and housewives (0.6%).

Most respondents have an average income of RM1001–RM2,000 (28.1%), followed by less than RM1,000 (24.2%), RM2,002–RM3,000 (21.3%), RM4,001–RM5,000 (9.4%) and RM3,001–RM4,000 (8.1%). However, only a small percentage

of respondents have income in the range of RM7,000 (2.3%). Only 3.9% of respondents RM5,001–RM6,000 (2.9%) and RM6,001– have an income of more than RM7,000.

Table 1  
*Demographic profile of respondents*

<b>Descriptive</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Age (years)</b>		
18–25	110	35.5
26–33	76	24.5
34–41	42	13.5
42–50	34	11.0
>51 years old	48	15.5
<b>Gender</b>		
Male	152	49.0
Female	158	51.0
<b>Marital status</b>		
Single	141	47.7
Married	161	51.9
Others	1	0.3
<b>Race</b>		
Malay	291	93.9
Chinese	15	4.8
Indian	3	1.0
Others	1	0.3
<b>Education level</b>		
Non-Formal	0	0
Primary School	3	1.0
Secondary School	67	21.6
Undergraduate	217	70.0
Postgraduate	21	6.8
<b>Skills Certificate</b>	2	0.6
<b>Professional Diploma</b>	0	0
<b>Occupation</b>		
Housewife	2	0.6
Student	64	20.6
Retiree	15	4.8

Table 1 (Continue)

Descriptive	Frequency	Percentage (%)
Self-employed	10	3.2
Own business	9	2.9
Private sector	131	42.3
Government	79	25.5
<b>Income (RM)</b>		
<RM1000	75	24.2
RM1001–RM2000	87	28.1
RM2001–RM3000	66	21.3
RM3001–RM4000	25	8.1
RM4001–RM5000	29	9.4
RM5001–RM6000	9	2.9
RM6001–RM7000	7	2.3
>RM7001	12	3.9

### Importance-Performance Analysis

The gap analysis is defined as the mean performance minus the mean importance. Generally, gap analysis compares discrepancies against a baseline of zero. Positive gaps are recognised as extremely good when performance exceeds importance. However, negative gaps show

that managerial initiative may be needed when performance is unimportant. Table 2 shows the average mean for importance, where 4.71 is considered highly important. Meanwhile, the total average mean for performance is considered moderately satisfied.

Table 2  
Gap analysis results for KIMP

Attributes	Mean importance	Mean performance	Gap analysis (P-I)
1 Jetty	4.86	3.28	-1.58
2 Toilet	4.90	2.92	-1.98
3 Hut	4.76	3.05	-1.71
4 Accommodation	4.85	3.55	-1.30
5 Dustbin	4.85	3.22	-1.63
6 Signage of conservation	4.71	2.95	-1.77
7 Level of cleanliness	4.80	3.30	-1.50
8 Camping facilities	4.59	3.16	-1.43
9 Souvenir shop	4.48	2.90	-1.58

Table 2 (Continue)

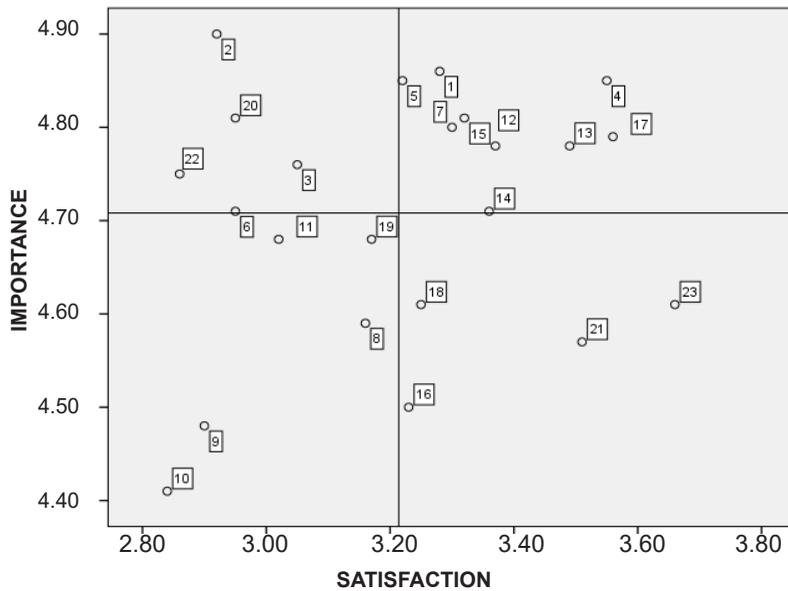
	Attributes	Mean importance	Mean performance	Gap analysis (P-I)
10	Marine park information	4.41	2.84	-1.58
11	Changing room	4.68	3.02	-1.66
12	Marine life watching	4.78	3.37	-1.41
13	Coral species	4.78	3.49	-1.29
14	Variety of flora and fauna	4.71	3.36	-1.35
15	Education of conservation	4.81	3.32	-1.50
16	Nature guide	4.50	3.23	-1.27
17	Boat transport	4.79	3.56	-1.23
18	Equipment rental services	4.61	3.25	-1.36
19	Variety of recreational facilities	4.68	3.17	-1.51
20	Safety and security	4.81	2.95	-1.86
21	Photography	4.57	3.51	-1.06
22	Lifeguard service	4.75	2.86	-1.89
23	Number of visitors	4.61	3.66	-0.95
	Average mean	4.71	3.21	

The significance-performance matrix for respondents' rankings of the importance and performance of tourism experiences at Kapas Island Marine Park is displayed on a grid with four quadrants (Figure 3). Each quadrant shows the importance of stakeholders' roles in perceived performance. Four quadrants are generated by charting importance and performance ratings along the x-axis and y-axis, highlighting spots where planners and policymakers should choose to increase their attention. It is possible to discover where gaps are by using this matrix. The findings of this analysis are shown in the next four quadrants (Figure 3).

#### **Quadrant One: High Importance, low performance (Concentrate here)**

Quadrant One (concentrate here) contains the attributes at KIMP deemed important by

various stakeholders but whose performance is considered poor. The tourism attributes are represented in numerous ways in Quadrant One. The tourism attributes and services in this quadrant appear to require serious attention. They are important, but the respondents have given them lower performance ratings. Primarily, the indicator in this quadrant shows that most attributes need to be improved in quality and performance (J. J. Kim et al., 2019). The strategy involves directing resources and efforts towards elevating the performance of these pivotal aspects that currently fall short of expectations. It is comparable to a premeditated assessment to concentrate resources where they can make the most significant impact, ultimately boosting the overall visitor experience (Torabi et al., 2022).



The facilities can be categorised into quadrants in the IPA Matrix based on their numbers:

1. Jetty	7. Level of Cleanliness	13. Coral Species	19. Variety of Recreational Facilities
2. Toilet	8. Camping Facilities	14. Variety of Flora and Fauna	20. Safety and Security
3. Hut	9. Souvenir Shop	15. Education of Conservation	21. Photography
4. Accommodation	10. Marine Park Information	16. Nature Guide	22. Lifeguard Service
5. Dustbin	11. Changing Room	17. Boat Transport	23. Number of Visitors
6. Signage of Conservation	12. Marine Life Watching	18. Equipment Rental Services	

Figure 3. Matrix of IPA

This study's quadrant includes different item variables such as toilets, huts, safety and security, and lifeguard services. These are the facilities and services required by most tourists to KIMP. While some of the items are consistent with the findings by Lee (2015), the result revealed high expectations for safety and convenience during activities. Another study by Mustafa et al. (2020) indicated that tourists ranked high importance but low performance for safety and security attributes for tourism in Bali, Indonesia.

The rising demand for marine areas as tourism destinations has caused challenges in terms of marine conservation. Human involvement, such as the influx of tourists to marine parks, can strain marine resources. In terms of attempts to improve satisfaction, these attributes take precedence (Jang et al., 2020).

Through this study, the importance of restroom facilities needs to be emphasised. It can be observed that the number of restroom facilities is relatively insufficient in key tourist areas. The crowded conditions

during peak seasons necessitate an increased number of restroom facilities and a guarantee of cleanliness during high usage. The same issue is noticeable regarding the insufficient number of picnic huts compared to the high number of tourists. The need for hut facilities is particularly evident due to the open and hot beach area. Many tourists arrive in groups, requiring relatively large huts. Safety is also a significant concern, as there are no lifeguard services; these aspects have fallen into Quadrant One.

This observation has two potential consequences: (1) despite a considerable rating discrepancy between stakeholders' expectations and perceptions, these things are relevant to all major stakeholders, and (2) in the tourism industry, all stakeholders must do a superior job of delivering these products. It should be a primary concern to increase efficiency or better standards.

### **Quadrant Two: High importance, high performance (Keep up the good work)**

Quadrant Two (Keep up the good work) has several attributes that are significant and perform well in the marine tourism industry. The items that fall into this quadrant include the jetty, accommodation, dustbins, level of cleanliness, marine life watching, coral species, education on conservation, and boat transport. These highlight attributes within the marine tourism industry that hold considerable importance and boast commendable performance (Lankia et al., 2022). These services and facilities could be viewed as the strength of marine park tourism at Kapas Island Marine Park, and tourism operators' marketing activities

should focus on them. These aspects are contributing positively to the overall marine tourism experience. The finding is consistent with Saib et al. (2016), who evaluated tourists' satisfaction with the firefly industry in Sabah. The result showed that the number of fireflies fall into the quadrant "high importance and high performance."

Similar to the findings of this study, coral species and marine life play a significant role in marine tourism. Protecting coral species should be emphasised so that they are not harmed or in danger to keep visitors satisfied. The main factor contributing to biodiversity loss in the future is a lack of public awareness about biodiversity conservation (Ibrahim et al., 2023). Thus, conservation is important to protect the environment and sustain biodiversity. Boat agencies must maintain their good services. Additionally, satisfied visitors will become more devoted and likely to make repeat purchases. These components in Quadrant Two imply that the attributes already provide good service. Therefore, performance must be sustained, implying that ongoing maintenance and management are expected to maintain good procurement.

### **Quadrant Three: Low importance, low performance (Low priority)**

Quadrant Three (Low Priority) covers tourism-related attributes that perform poorly and have little significance, representing subdued precedence for the marine tourism industry. Quadrant Three includes signage of conservation, camping facilities, souvenir

shops, marine park information, changing rooms, and recreational facilities. In addition, a variety of recreational facilities should be emphasised due to their nearly close to crosshair lines. Even if the results have indicated that visitors do not discover these elements to be significant, Management should not stop trying to improve these services.

The findings are consistent with the study by Oğuzbalaban and Kizilirmak (2019) that a variety of souvenirs are included in the quadrant of low priority for tourism experiences. On the other hand, souvenir shops are typically viewed as necessities by visitors. Visitors' satisfaction and importance are unaffected by the indicators in this quadrant. However, even if attributes are in the "Low Priority" quadrant, it does not indicate that they should be neglected by stakeholders (Zhang et al., 2021). Camping facilities, changing rooms and recreational facilities are basic amenities that must be provided at KIMP. Other than that, signage and marine park information are in the beginning phases of their stakeholder's development and may expand into a prominent level. Planning for tourism is likely to have a great impact on how it grows (Ling et al., 2022).

#### **Quadrant Four: Low importance, high performance (Possible Overkill)**

The marine tourism sector's components with low priority and high performance are included in Quadrant Four (Possible Overkill). Only four attributes, such

as nature guide services, recreational equipment rental services, photography and the number of visitors, fall into Quadrant Four. It presumes that although these attributes have a low significance score, they have obtained a high performance score. Quadrant Four delineates situations where these attributes indicate strong performance despite receiving low priority from visitors. That is similar to having a high achiever in non-essential areas. Deely et al. (2022) mentioned that the challenging aspect is figuring out whether the money allocated to these less crucial areas could be better utilised elsewhere, even though the exceptional performance is excellent.

Sundram and Gani (2022) and Irwana et al. (2015) mentioned that although these attributes may not be highlighted and need additional improvement, extra allocation to improve them must be carefully examined as well to focus on other attributes that need amendment. Zhang et al. (2021) justified that possible overkill attributes are commonly disregarded after assessment. As a result, there is a tendency for the traits that receive less attention to develop into challenges and potential problems when they are completely neglected.

#### **CONCLUSION**

In conclusion, effective management of marine park tourism depends on evaluating the quality of visitors' experiences and protecting the natural environment. The ability to strike a balance between providing a positive and rewarding experience for visitors and conserving the ecological

integrity of the marine park is critical to long-term and effective administration. It is about reconciling the human aspect of tourism with the need to maintain and conserve the valuable natural resources of the marine environment.

This study aims to determine some of the management's concerns concerning visitor satisfaction. In overseeing the marine park tourism destination in KIMP, administrators and stakeholders can evaluate visitor satisfaction using IPA, a straightforward and practical approach to evaluating visitor satisfaction compared to other methods. This study effectively compared the performance of the primary aspects that determine visitor satisfaction. The research outcomes can visually convey critical information about how these components fared in Kapas Island Marine Park. Results demonstrate which IPA studies contribute the most to future decision-making. KIMP tourism agencies could use the findings to improve performance in areas visitors perceive as important but where performance is weak.

### **Implications for Theory and Practice**

IPA findings suggest that raising the quality of facilities, including restrooms, changing rooms, security, and lifeguard services, can significantly impact tourists' happiness. These facilities and services are of utmost importance to tourists. In this scenario, it is imperative for the management authorities to promptly enhance the prevailing condition. This objective can be accomplished by increasing the budget

allocation to finance the development, as well as recruiting additional workers to oversee its maintenance. Furthermore, allocating funds from the budget might be utilised for safety and life-saving training.

In the meantime, it is necessary to maintain the jetty, the kind of lodgings, the garbage cans, the degree of cleanliness, the marine life observation, the richness of coral species, the conservation awareness activities, and the boat transportation to provide a favourable experience for tourists. Even the signage of conservation, camping facilities, souvenir shops, marine park information, changing rooms and recreational facilities fall into the low-priority group; tourism planning should not ignore the importance of these aspects, as tourists' tastes and preferences may change. Finally, the features of nature guide services, recreational equipment rental services, scenery for photography, and a number of visitors exhibit a relatively modest level of significance, yet these components have demonstrated satisfactory performance. Nevertheless, IPA has shown that nature guide services, recreational equipment rental services, photography, and the number of visitors exhibited a commendable level of performance. This outcome is noteworthy, considering that the visitors perceived these attributes as having low significance.

### **Limitations of the Study and Recommendation for Future Research**

The size of its sample constrains the scope of this study. Participant selection was

contingent upon their ease of accessibility. Future research should establish a broad and varied depiction of tourists, tour guides, and boatmen in KIMP and look into further areas of ecologically responsible tourism. Larger sample sizes for more representative analyses or broader scopes to cover a wider variety of marine tourism destinations, for example, might provide more insightful findings.

Lastly, the scope of the study only focused on one small island of the Malaysian marine parks' ecosystem. A series of comparative studies could be conducted in future, including comparing the marine park's performance with similar parks or international benchmarks to provide context for the analysis. It can contribute to more choices for conducting IPA or serve as a future preparation process for large-scale surveys.

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