

## The Effect of Sustainability-Based Service Quality on the Satisfaction of Beach Visitors in Jayapura City

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### ABSTRACT

The purpose of this study was to examine and determine the effect of sustainable service quality on visitor satisfaction at coastal tourist destinations in Jayapura City. The dimensions measured were tangible sustainability, sustainability practices, tangibility, reliability, responsiveness, assurance, and empathy. The study was conducted in Jayapura City. The research approach used was quantitative. Data collection used observation and questionnaire techniques (both direct and online). The respondents were visitors to coastal tourist destinations in Jayapura City. The data obtained were processed using multiple linear regression analysis tools. The results showed that the sustainability practices dimension significantly influenced visitor satisfaction at coastal tourist destinations in Jayapura City. Meanwhile, the tangible sustainability, tangibility, reliability, responsiveness, assurance, and empathy dimensions did not significantly influence visitor satisfaction at coastal tourist destinations in Jayapura City. The recommendations given to destination managers and local governments are 1) improving the quality of beach services by using environmentally friendly materials and providing trash bins as a form of waste management 2) improving the quality of services by providing standard safety equipment at beach tourism destinations 3) improving the quality of services by providing bathrooms that meet standards and good clean water quality, and 4) improving the quality of services from the aspect of human resources for beach tourism destination managers through "Sadar Wisata" socialization and other activities.

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### 1. INTRODUCTION

Papua Province has significant tourism potential. The dominant type of tourist destination in Papua is nature tourism. Data from the 2019 Strategic Plan of the Papua Provincial Tourism Office shows that nature tourism dominates the top tourist attractions [1]. Therefore, developing nature tourism into global tourism destinations requires greater

attention from the government and all elements of society. Proper development of nature tourism will support environmental sustainability, increase regional revenue, and improve the well-being of local communities.

Jayapura City is the capital of Papua Province and boasts a variety of tourist destinations, including natural, cultural, spiritual, and historical attractions. Potential

tourist attractions include Hamadi Beach, Base-G Beach, Holtekamp Beach, Abe Beach, Humbolt Beach, Youtefa Bay, Moso Hot Springs, and the Muara Tami Border [2]. Popular natural tourist destinations frequently visited by both local and out-of-towners include Hamadi Beach, Base-G Beach, and Holtekamp Beach. These three beach destinations were included in the Papua Provincial Tourism Office's list of top tourist attractions in 2019.

Empirical research shows that the facilities available at popular beach tourist destinations in Jayapura City are incomplete and unable to meet visitor satisfaction. Research by [3] shows that beach tourist destination facilities in Jayapura City are inadequate and that beach tourist destination managers in Jayapura City lack tourism knowledge. [4] provide recommendations for improving and developing security, cleanliness, clean water availability, and toilet facilities at the Base-G beach tourist destination. Research by [5] states that Hamadi Beach is a leading tourist destination but is not yet supported by adequate tourism facilities. [6] shows that tourism in the Holtekamp coastal area has developed with the construction of the Youtefa Bridge, but attention needs to be paid to the provision of waste disposal facilities and public toilets. The results of a qualitative study conducted by the research team in 2024 indicate that beach tourist destination facilities are incomplete, such as bathroom facilities, clean water, and trash cans [7]. Tourist lodge owners at Base-G Beach and Holtekamp Beach stated they need financial support to improve lodge facilities, bathrooms, and trash disposal. Visitor informants interviewed also revealed that some facilities are incomplete or even non-existent.

Tourism marketing activities aim to increase visitor satisfaction and provide the best quality service [8]. The facilities at a coastal tourist destination are part of the service quality. Physical and non-physical facilities and infrastructure provided by the government, the private sector, MSMEs, and local communities can provide visitor satisfaction. Satisfied visitors will return and

recommend the destination to others. To create customer satisfaction, producers must provide quality service [9]. Visitor satisfaction impacts future behavioral intentions, such as revisit intentions and recommendations, making it important for tourism service providers, particularly beach tourism operators in Jayapura City, to study. The service quality measurement model (SERVQUAL) was first developed by [10]. Over time, service quality has been measured across various services, including tourism, particularly in nature tourism, which embraces a sustainable concept. The concept of sustainability has become a global focus on all aspects of life, including nature and cultural tourism. [11] added two dimensions to the service quality measurement model for nature tourism: tangible sustainability, sustainability practices, tangibility, reliability, responsiveness, assurance, and empathy. These measurements relate to the physical and non-physical services provided by coastal tourism destination managers.

Based on the above description, it is important to understand the general quality of coastal tourism destination services and their impact on visitor satisfaction in Jayapura City. This research aligns with the national priority focus of tourism strengthening. This strengthening focuses on encouraging the development of sustainable tourism potential, promoting regional tourism, and enhancing the economic potential of local communities. It is hoped that the results of this study can serve as a reference source for further research and inform policymaking for the development of sustainable natural tourism destinations in Jayapura City, ensuring their competitiveness and contribution to the well-being of the community, particularly local residents.

## 2. LITERATURE REVIEW

**Theory** The theory used in this study is cognitive dissonance theory. This theory explains an individual's attitude when comparing their expectations before consuming a product and the reality they experience after using it. This study examined the expectations of a visitor to a popular beach

resort in Jayapura City before and after their visit. If a visitor's evaluation aligns with their expectations, they will be satisfied. Conversely, if it does not align with their expectations, they will be dissatisfied.

**Satisfaction** felt by a consumer's satisfaction is caused by positive confirmation, while dissatisfaction is caused by negative confirmation (Pizam and Milman, 1993). Visitor satisfaction impacts future behavioral intentions, such as the intention to revisit and provide recommendations, so it is important for tourism service business actors, especially beach tourism in Jayapura City, to study it.

**Quality of service** is a model for measuring consumer satisfaction with services provided by producers. This study examines the quality of beach tourism services provided by tourism destination managers to visitors. In relation to the development of nature tourism that promotes the concept of sustainability,[11] added two dimensions to the existing service quality

measurement model for nature tourism: tangible sustainability and sustainability practices. The other five service quality dimensions remained the same. Therefore, the measurement of nature tourism service quality consists of six dimensions: tangible sustainability, sustainability practices, tangibility, reliability, responsiveness, assurance, and empathy. There are 27 indicators for the six dimensions. A summary of the dimensions and indicators can be seen in Table 1.

The tangible sustainability dimension relates to natural physical services, sustainability practices relate to physical services that pay attention to environmental sustainability, tangibility relates to elements that can be physically observed, reliability relates to reliable services that have been promised to visitors, responsiveness relates to positive attention to visitors, assurance relates to polite attitudes towards visitors, and empathy relates to personal caring attitudes towards visitors.

Table 1. Dimensions and Indicators of Tourism Service Quality

Dimensions	Indicator
<i>Tangible Sustainability</i>	<ul style="list-style-type: none"> <li>• Visual appeal and natural tourist attraction</li> <li>• The park is not too busy and still natural</li> <li>• Nature-based activities (e.g., hiking, kayaking, bird watching)</li> <li>• Minimal changes to existing landscape and vegetation</li> </ul>
<i>Sustainability Practices</i>	<ul style="list-style-type: none"> <li>• Utilization of natural/local resources as equipment and facilities</li> <li>• Emphasis on recycling and reuse of products</li> <li>• Development integrated with the local environment/culture</li> </ul>
<i>Tangibility</i>	<ul style="list-style-type: none"> <li>• Physical facilities and equipment appear to be in good condition and in good condition.</li> <li>• The information center provides relevant information</li> <li>• Adequate transportation systems are available</li> <li>• Accessibility of physical facilities and natural resources</li> <li>• Neat appearance of resort staff</li> </ul>
<i>Reliability</i>	<ul style="list-style-type: none"> <li>• The staff provided prompt service.</li> <li>• Staff provide timely service</li> <li>• Staff provide accurate information</li> </ul>
<i>Responsiveness</i>	<ul style="list-style-type: none"> <li>• Staff are willing to assist tourists</li> <li>• Staff respond to tourist inquiries</li> <li>• Staff provide details regarding the services and products offered.</li> </ul>
<i>Assurance</i>	<ul style="list-style-type: none"> <li>• Staff are willing to assist tourists</li> <li>• Staff respond to tourist inquiries</li> <li>• Staff provide details regarding the services and products offered.</li> <li>• Staff have the necessary knowledge to answer questions.</li> <li>• Tourist attractions provide adequate safety facilities</li> </ul>
<i>Empathy</i>	<ul style="list-style-type: none"> <li>• The staff provides personal attention to tourists.</li> <li>• Staff understands the special needs of travelers</li> </ul>

- |  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>• Strategically located facilities and equipment</li> <li>• Comfortable facilities</li> <li>• Adequate water supply</li> </ul> |
|--|---|

Source: Yusof *et al.* (2014)

### 2.1 Framework

Jayapura City has the potential for attractive coastal tourism destinations and is frequently visited by tourists. Empirical data shows that the quality of coastal tourism services in Jayapura City is still incomplete and inadequate. The establishment of a global development concept related to sustainability also impacts tourism services. This demand is intended to support the sustainability of nature and the earth. Studies in tourism seek to identify factors influencing consumer satisfaction because visitors can generate income for the government and tourism destination managers. One factor

that can influence visitor satisfaction is service quality. Sustainability-based nature tourism service quality has been developed by several researchers. This study adopts the service quality developed by [11]. However, this study only examines six dimensions without the empathy dimension. This is because the empathy indicator can be represented by the assurance and responsiveness dimensions. This study aims to examine the influence of sustainability-based service quality on consumer or visitor satisfaction at coastal tourism destinations in Jayapura City.

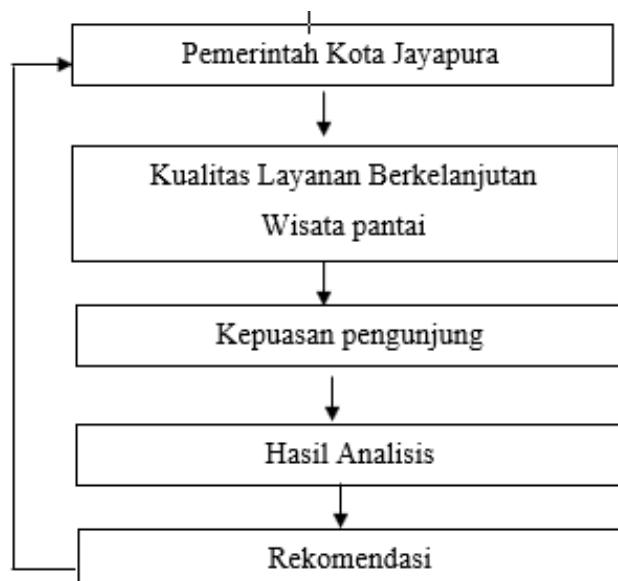


Figure 1. Research Framework

Source: Author's Thoughts (2025)

Based on the research framework, this study will examine the influence of sustainability-based service quality on visitor satisfaction at

coastal tourist destinations in Jayapura City. The service quality dimension is the independent variable and consists of six

dimensions: *tangible sustainability*, *sustainability practices*, *tangibility*, *reliability*, *responsiveness*, and *assurance*. The dependent variable is visitor

satisfaction at beach tourism destinations in Jayapura City. The research model can be seen in Figure 2.

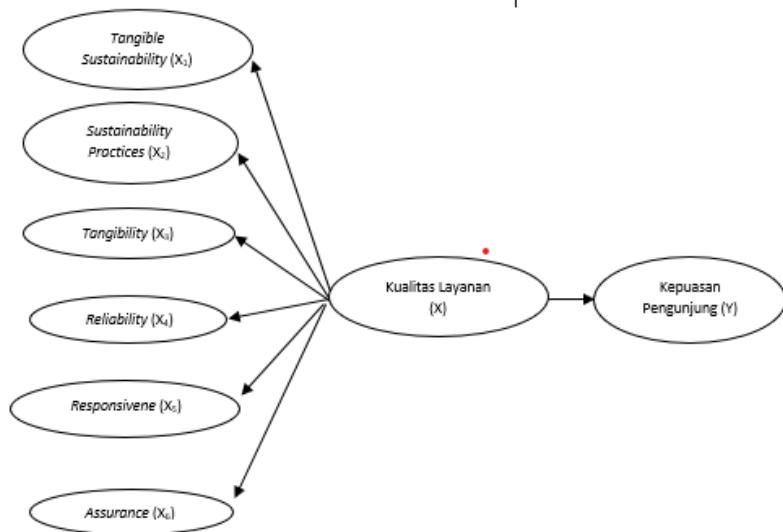


Figure 2. Research Model  
Source: Developed from Yusof et al. (2014)

## 2.2 Hypothesis

The research hypothesis was developed based on empirical literature showing a positive relationship between service quality and satisfaction. Empirical literature indicates that service quality has a positive effect on satisfaction. Research by [12]–[16] indicates that service quality has a positive effect on satisfaction. Therefore, the following hypotheses are developed.

H1: It is suspected that tangible sustainability has a positive effect on visitor satisfaction at coastal tourist destinations in Jayapura City.

H2: It is suspected that sustainability practices have a positive influence on visitor satisfaction at coastal tourist destinations in Jayapura City.

H3: It is suspected that tangibility has a positive effect

on visitor satisfaction at beach tourism destinations in Jayapura City.

H4: It is suspected that reliability has a positive effect on visitor satisfaction at coastal tourist destinations in Jayapura City.

H5: It is suspected that responsiveness has a positive influence on visitor satisfaction at beach tourism destinations in Jayapura City.

H6: It is suspected that assurance has a positive effect on visitor satisfaction at coastal tourist destinations in Jayapura City.

## 3. METHODS

### 3.1 Research Location

This research uses a quantitative approach and will be conducted over a period of 5 (five) months, from May to September 2025. The research location is Jayapura City. The object of this research is tourist

satisfaction at beaches in Jayapura City. Some famous beach tourist destinations in Jayapura City are Base-G Beach, Hamadi Beach, Holtekamp Beach.

### 3.2 Population and Sample

A population is a generalized area consisting of objects or subjects that have certain qualities and characteristics determined by the researcher to be studied and then conclusions drawn [17]. The object of this research is the satisfaction of beach tourism visitors in Jayapura City, especially at Base-G Beach, Hamadi Beach, and Holtekamp Beach. The population of this research is visitors who have visited beach tourism destinations in Jayapura City. A population is a generalized area consisting of objects or subjects that have certain qualities and characteristics determined by the researcher to be studied and then conclusions drawn [17].

A sample is a subset of a population that contains several members or elements of the population [18]. The sampling techniques used were non-probability sampling and purposive sampling. The respondent criteria were having visited one of the coastal tourist destinations in Jayapura City and being over 18 years old. 41 respondents completed the online questionnaire and 38 respondents

completed the in-person questionnaire. Thus, the sample size in this study was 79.

### 3.3 Data analysis

This analysis method is used to process numerical data obtained from questionnaires. The data will be analyzed using multiple linear regression. Prior to the multiple linear regression test, the data were examined using classical assumption tests, validity tests, and reliability tests.

## 4. RESULTS AND DISCUSSION

### 4.1 Respondent Characteristics

A total of 79 respondents responded to the questionnaire in person and online. 41 responded to the online questionnaire and 38 responded to the in-person questionnaire. The respondent characteristics collected included gender, age, highest level of education, and domicile.

### 4.2 Gender Characteristics

Respondents were categorized by gender in this study as male and female. Female respondents outnumbered male respondents. The percentage of respondents by gender was 47 (59.5%) female and 32 (40.5%) male. A more detailed comparison of the number of respondents by gender in this study can be seen in Table 4.1.

Table 1. Respondent Characteristics by Gender

Gender	Frequency	Percentage
Man	32	40.5%
Woman	47	59.5%
<b>Total</b>		<b>100%</b>

Source: Processed Data, 2025

### 4.3 Age Characteristics

The characteristics of respondents according to age in the questionnaire are divided into 4 categories, namely 18-27 years, 28-37 years, 38-47 years and >48 years. Respondents with the most categories are at the age level of 18-27 years and the least are aged >48 years. Based on table 4.2 it can be

concluded that from 100% of respondents divided by age category, the number of 18-27 years old is 41 people or 51.9%, 28-37 years old is 11 people or 13.9%, 38-47 years old is 23 people or 29.1% and >48 years old is 4 people or 5.1%. For this reason, the 18-27 years old category is the most variable. For more details about the comparison, please see table 2.

Table 2. Respondent Characteristics by Age

AGE	FREQUENCY	PERCENTAGE
18-27 Years	41	51.9%

28-37 Years	11	13.9%
38-47 Years	23	29.1%
>48 Years	4	5.1%
<b>Total</b>	<b>79</b>	<b>100%</b>

Source: Processed Data, 2025

#### 4.4 Characteristics of Education

Respondents were categorized according to their highest level of education, as stated in the questionnaire: junior high school, senior high school, diploma 3, bachelor's degree, master's degree, and doctoral degree. The largest number of

respondents were those with a bachelor's degree (47 or 59.5%), followed by 14 respondents with a high school degree (17.7%), two with a diploma (2.5%), one with a master's degree (14 or 17.7%), and two with a doctoral degree (2 or 2.5%). For a more detailed comparison, see Table 3.

Table 3. Respondent Characteristics by Education

EDUCATION	FREQUENCY	PERCENTAGE
JUNIOR HIGH SCHOOL	0	0%
SENIOR HIGH SCHOOL	14	17.7%
D3	2	2.5%
S1	47	59.5%
S2	14	17.7%
S3	2	2.5%
<b>Total</b>	<b>79</b>	<b>100%</b>

Source: Processed Data, 2025

#### 4.5 Domicile Characteristics

Respondents were categorized by domicile into five categories: Jayapura City, Jayapura Regency, Papua Province, Outside Papua Province, and Outside Papua Island. Data processing results show that the largest percentage of domiciles is in Jayapura City. Based on the respondent categories by

domicile, Jayapura City accounted for 45 respondents (57.0%), Jayapura Regency accounted for 13 respondents (16.5%), Papua Province accounted for 10 respondents (12.7%), Outside Papua Province accounted for 11 respondents (13.9%), and Outside Papua Island accounted for 0%. Table 4 provides more details.

Table 4 Respondent Characteristics by Domicile

DOMICILE	FREQUENCY	PERCENTAGE
Jayapura City	45	57.0%
Jayapura Regency	13	16.5%
Papua Province	10	12.7%
Outside Papua Province	11	13.9%
Outside Papua Island	0	0%
<b>Total</b>	<b>79</b>	<b>100%</b>

Source: Processed Data, 2025

#### 4.6 Income Characteristics

Respondents' income categories are divided into 4 categories, namely <Rp. 1,000,000, Rp. 1,000,000-Rp. 3,000,000, Rp. 3,000,000-Rp. 5,000,000, and >Rp. 5,000,000. The largest percentage of respondents according to income is the category of Rp. 3,000,000-Rp. 5,000,000, amounting to 28

people or 35.4%. The income category <Rp. 1,000,000 is 21 people or 26.6%, the income category of Rp. 1,000,000-Rp. 3,000,000 is 18 people or 22.8% and the income category >Rp. 5,000,000, amounting to 12 people or 15.2%. This can be seen more clearly in Table 5.

Table 5. Respondent Characteristics by Income

INCOME	FREQUENCY	PERCENTAGE
< Rp. 1,000,000	21	26.6%
Rp. 1,000,000-Rp. 3,000,000	18	22.8%
Rp. 3,000,000-Rp. 5,000,000	28	35.4%
>Rp. 5,000,000	12	15.2%
<b>Total</b>	<b>79</b>	<b>100%</b>

Source: Processed Data, 2025

#### 4.7 Descriptive Analysis

##### 1. Respondents' Responses to Variables *Tangible Sustainability* (X1)

The total average value of the Tangible Sustainability variable (X1) is 3.98. The highest average value is 4.43 and the lowest average value is 3.32. The description related to the highest average of the tangible

sustainability variable is in the indicator "The beach tourist attraction in Jayapura City has beautiful views. The description related to the lowest average of the tangible sustainability variable is "The development of coastal tourism objects in Jayapura City does not cause major changes to nature. Description of the average variable *Tangible Sustainability* (X1) can be seen in Table 6.

Table 6. Description of Average Tangible Sustainability (X1)

No.	Statement	Average
1	The beach tourist attractions in Jayapura City have beautiful views.	4.43
2	The beach tourist attractions in Jayapura City are still natural	4.01
3	Tourists can enjoy the beauty of the beaches, sea and sand of the beach tourism objects in Jayapura City.	4.15
4	The development of coastal tourism objects in Jayapura City does not cause major changes to nature.	3.32
<b>Total Average</b>		<b>3.98</b>

Source: Processed data, 2025

##### 2. Respondents' Responses to *Sustainability Practices* (X2)

Based on table 4.7, it can be seen that the total average of the Sustainability Practices variable (X2) is 3.79 with the highest average value being 3.99 and the lowest average value being 3.57. The description related to the highest average of the Sustainability Practices variable (X2) is in the

indicator ""Coastal tourist attractions in Jayapura City use natural materials to make huts and seats," and "Coastal tourist attractions in Jayapura City provide trash bins." The description related to the lowest average of the Sustainability Practices variable (X2) is ""Coastal tourist attractions in Jayapura City use recycled products."

Table 7. Description of Average Sustainability Practices (X2)

No.	Statement	Average
1	The beach tourist attraction in Jayapura City uses natural materials to make huts and seats.	3.99
2	Beach tourism objects in Jayapura City use recycled products	3.57
3	Beach tourist attractions in Jayapura City provide trash bins	3.99
4	The beach tourism objects in Jayapura City were built in an integrated manner with the location and culture of the local indigenous community.	3.62
<b>Total Average</b>		<b>3.79</b>

Source: Processed Data, 2025

##### 3. Respondents' Responses to *Tangibility* (X3)

Based on table 4.8, it can be seen that the total average of the Tangibility variable

(X3) is 4.12 with the highest average value being 4.41 and the lowest average value being 3.57. The description related to the highest average of the tangibility variable is in the indicator "Beach tourism objects in Jayapura City can be reached by all types of

transportation. The description related to the lowest average of the tangibility variable is ""The beach tourism objects in Jayapura City have environmentally friendly facilities and are in good condition."

Table 8. Description of Average Tangibility (X3)

No	Statement	Average
1	The beach tourist attractions in Jayapura City have environmentally friendly facilities and are in good condition.	4.33
2	The beach tourist attraction in Jayapura City has an information center and can provide the information visitors need.	3.57
3	Beach tourism objects in Jayapura City can be reached by all types of transportation.	4.42
4	Beach tourist attractions in Jayapura City are easy to reach and access	4.41
5	The beach tourist attraction in Jayapura City has guards or managers who are neatly dressed.	3.86
<b>Total Average</b>		<b>4.12</b>

Source: Processed Data, 2025

#### 4. Respondents' Responses to Reliability (X4)

Based on table 4.9, it can be seen that the total average of the Reliability variable (X4) is 3.37 with the highest average value being 3.82 and the lowest average value being 3.58. The description related to the highest average of the Reliability variable is in the

indicator "Tour guide/manager Beach Tourism Objects in Jayapura City serve quickly." The description related to the lowest average of the reliability variable is in the indicator "Tour guide/manager Beach Tourism Objects in Jayapura City provide accurate information."

Table 9. Description of Average Reliability (X4)

No.	Statement	Average
1	Tour guide/manager Beach Tourism Objects in Jayapura City serve quickly	3.82
2	Tour guide/manager Beach Tourism Objects in Jayapura City provide timely services	3.70
3	Tour guide/manager Beach Tourism Objects in Jayapura City provide accurate information	3.58
<b>Total Average</b>		<b>3.37</b>

Source: Processed Data, 2025

#### 5. Respondents' Responses to Responsiveness (X5)

Based on table 4.10, it can be seen that the total average of the Responsiveness variable (X5) is 3.62 with the highest average value being 3.94 and the lowest average value being 3.01. The description related to the highest average of the Responsiveness variable is in the indicator "Tour

guide/manager The Beach Tourism Objects in Jayapura City are always ready to help tourists." The description related to the lowest average of the responsiveness variable is in the indicator ""Coastal tourist attractions in Jayapura City provide adequate safety facilities."

Table 10. Description of Average Responsiveness (X5)

No.	Statement	Average
1	Tour guide/manager Beach Tourism Objects in Jayapura City are always ready to help tourists	3.94
2	Tour guide/manager Beach tourism objects in Jayapura City always respond to tourist questions well	3.89

3	Tour guide/manager Beach Tourism Objects in Jayapura City provide clear details of services and products	3.48
4	Tour guide/manager Beach Tourism Objects in Jayapura City have the knowledge needed to answer tourists' questions	3.80
5	Beach tourism objects in Jayapura City provide adequate safety facilities	3.01
<b>Total Average</b>		<b>3.62</b>

Source: Processed Data, 2025

#### 6. Respondents' Responses to Assurance (X6)

Based on table 4.11, it can be seen that the total average of the Assurance variable (X6) is 3.60 with the highest average value being 4.09 and the lowest average value being 3.25. The description related to the highest average of the Assurance variable is in

the indicator "The beach tourism object in Jayapura City has a strategic location." The description related to the lowest average of the reliability variable is in the indicator "Tour guide/manager" Beach Tourism Objects in Jayapura City provide personal attention to tourists."

Table 11. Description of Average Assurance (X6)

No.	Statement	Average
1	Tour guide/manager Beach Tourism Objects in Jayapura City provide personal attention to tourists	3.25
2	Tour guide/manager Beach Tourism Objects in Jayapura City understand the needs of tourists	3.47
3	The beach tourist attraction in Jayapura City has a strategic location	4.09
4	Beach tourism objects in Jayapura City have comfortable facilities	3.67
5	The coastal tourist attractions in Jayapura City have adequate clean water availability.	3.52
<b>Total Average</b>		<b>3.60</b>

Source: Processed Data, 2025

#### 7. Respondents' Responses to Satisfaction (Y)

Based on table 4.12, it can be seen that the total average of the Satisfaction variable (Y) is 3.98 with the highest average value being 4.42 and the lowest average value being 3.63. The description related to the highest average of the Satisfaction variable is

in the indicator "I really enjoyed the view Beach Tourism Objects in Jayapura City. The description related to the lowest average of the satisfaction variable is in the indicator "The services provided by the Beach Tourism Object in Jayapura City meet my expectations."

Table 12. Description of Average Employee Performance (Y)

No.	Statement	Average
1	I really enjoyed the view Beach Tourism Objects in Jayapura City	4.42
2	I am satisfied with the services of the Beach Tourism Objects in Jayapura City	3.94
3	The services provided by the Beach Tourism Object in Jayapura City are in accordance with my expectations.	3.63
4	I would recommend Beach Tourism Objects in Jayapura City to others via social media	3.91
<b>Total Average</b>		<b>3.98</b>

Source: Processed Data, 2025

#### 4.8 Data Quality Test

##### 1. Validity Test

The validity test results in this study were calculated from each item of the

variables of the influence of tangible sustainability, sustainability practices, tangibility, reliability, responsiveness and assurance on visitor satisfaction of coastal tourism destinations in Jayapura City. Data

taken from 79 respondents using a questionnaire can be tested for validity by looking at the calculated t value (the results of SPSS data processing of the correlation of each variable) from the r table ( $Df = n-2$ ;  $79-2 = 77$ ;  $Df 77 = 1.665$ ) sequentially from each variable. All variables meet the validity test criteria

because the calculated r value is greater than the r table.

## 2. Reliability Test

To measure the reliability test value of this research instrument, this can be done from the coefficient. *Cronbach Alpha* following:

Table 13. Reliability Test Results

Variables	Cronbach Alpha	Information
Tangible sustainability(X1)	0.729	Reliable
Sustainability practices(X2)	0.735	Reliable
Tangibility(X3)	0.613	Reliable
Reliability(X4)	0.848	Reliable
Responsiveness(X5)	0.863	Reliable
Assurance(X6)	0.612	Reliable
Satisfaction (Y)	0.751	Reliable

Source: Processed Data, 2025

Based on Table 13, the Cronbach's alpha values for all research variables are categorized as reliable because they are greater than 0.6. Therefore, the respondents' answers to these variables can be said to be reliable, indicating that the statements in the questionnaire are appropriate and can be used for research.

### 4.9 Hypothesis Testing

#### 1. t-test (Partial Test)

The results of multiple linear regression indicate that the significance level of the tangible sustainability variable is 0.637, sustainability practices is 0.052, tangibility is 0.609, reliability is 0.367, responsiveness is 0.118, and assurance is 0.573. Thus, only the sustainability practices variable has a significance value  $<0.05$  and has a significant effect on visitor satisfaction at coastal tourist destinations in Jayapura City. Meanwhile, the other variables do not significantly influence visitor satisfaction at coastal tourist destinations in Jayapura City.

## 5. CONCLUSION

Jayapura City's beach tourism destinations are well-known to the general public. Some of them are strategically located, making them easily accessible. Measuring the quality of sustainability-based nature tourism services is necessary given the importance of this concept in global economic development.

Multiple linear regression results indicate that only one of six service quality variables significantly influences visitor satisfaction: sustainability practices. The sustainability practices variable relates to the use of natural materials, recycled products, and waste management.

## RECOMMENDATION

Some recommendations that can be given to the government and managers of coastal tourism destinations in Jayapura City are as follows.

1. Improving the quality of beach services by using environmentally friendly materials and providing trash bins as a form of waste management.
2. Improving service quality by providing standard safety equipment at coastal tourist destinations.
3. Improve the quality of service by providing standard bathrooms and good quality clean water.
4. Improving the quality of services from the human resources aspect of coastal tourism destination managers through "Tourism Awareness" socialization and other activities.

## LIMITATIONS

This study had limitations in terms of sample size and data collection techniques.

Therefore, future research could employ mixed methods research, increase the sample size, and utilize SEM analysis tools to achieve even better results.

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