



# Journal of Industrial Engineering Management

(Jiem Volume 9 No 2 Tahun 2024)

## ANALYSIS OF THE EFFECT OF QUALITY, PRICE, INFRASTRUCTURE ON TOURIST SATISFACTION AND INTEREST IN RAJA AMPAT, SOUTHWEST PAPUA

Intan Iriani Supriatna<sup>1</sup>, Mirga Maulana Rachmadhani <sup>2</sup>, Mardhiah Gani <sup>3</sup>, Asih Ahistasari <sup>4</sup>, Mohammad Arief Nur Wahyudien <sup>5\*</sup>, Abdul Razak Maricar <sup>6</sup>

Industrial Engineering, Department of Faculty Engineering<sup>123456</sup>  
Jln. Pendidikan, No. 27, Klabulu, Malaimsimsa, Sorong City<sup>123456</sup>

Email: [arief@um-sorong.ac.id](mailto:arief@um-sorong.ac.id), [asih@um-sorong.ac.id](mailto:asih@um-sorong.ac.id)

### ABSTRACT

Success industry tourism is greatly influenced by quality services , prices , and infrastructure . Urgency study This based on Quality services that include accommodation , food , transportation and guides tourism , which affects satisfaction and loyalty tourists . Price as factor important in decision tourists , where prices are appropriate with quality service increase mark perception destination ; and infrastructure like transportation , accommodation and facilities general , which plays a role in comfort security tourists . Research objectives For analyze influence quality , price and infrastructure to satisfaction and interest Tourists Return to Raja Ampat. Research Methods use method quantitative with analysis statistics descriptive with SPSS software . The results of analysis influence There are 2 variables that are significant and have influence that is quality service and satisfaction traveler to interest traveler return to Raja Ampat, 2 variables that are not significant and not own influence that is prices and infrastructure to interest traveler return to Raja Ampat.

Keywords: Quality Service, Price, Infrastructure, Raja Ampat

### Article History:

Submitted August 5, 2024  
Revised November 7, 2024  
Accepted November 11, 2024  
Available online Nov,27,2024

### Published By:

Faculty Industrial  
Muslim University of Indonesia

### Address :

Jl. Urip Sumoharjo Km. 5 ( UMI Campus II)  
Makassar, South Sulawesi.

### Email :

[Jiem@umi.ac.id](mailto:Jiem@umi.ac.id)

### Phone :

+6281341717729  
+6281247526640

Licensed by: <https://creativecommons.org/licenses/by-nc-sa/4.0/>

Technology DOI : <http://dx.doi.org/10.33536/jiem.v9i2.1885>



OPEN  ACCESS

## 1. INTRODUCTION

Raja Ampat Islands is one of Indonesia's best tour marines and is known worldwide. Because of its beauty, its nature is very enchanting, exotic, and unforgettable. The Raja Ampat Islands are in the Province of Southwest Papua, precisely in the Raja Ampat Regency. The Raja Ampat Islands consist of from island Waigeo, the island Misool, the island Salawati and the island Batanta. The Raja Ampat Islands are the most significant island, with around 610 islands, but only 35 are inhabited by people who live in different small villages (Sutrisno, 2017) .

Raja Ampat has been one of the destinations that tour Indonesia's famous flagships with natural beauty its stunning sea, diversity, rich life, and fantastic nature. Because of the natural beauty lower the sea, many tourists who visit recorded the number of tourists visiting to Raja Ampat are Good overseas and domestically (Nursyamsu *et al.*, 2023) . In 2022, after COVID-19, there were 5,725 tourists divided into 4,973 foreign tourists and 752 Indonesian tourists; this data decreased from 2021 as many as 8,253 tourists. However, to maintain and improve its position as a destination attractive to tourism, necessary to understand factors that influence satisfaction (Taborat, 2020; Iriansyah, *et al.*, 2023) , tourists and identify areas that require more attention carried in development tourists (Supriatna and Affandi, 2021) . Quality service (Supriatna *et al.*, 2018) is key to experiencing tourists in Raja Ampat. Quality service covers accommodations, food, guide tourism, and transportation (Pratama *et al.*, 2021) . Tourists expect standard high service when visiting them, and a good service experience can increase their satisfaction (Widodo, 2021) .

Apart from quality service, price (Asrizal Efendy Nasution and Nasution, 2021) also

influences the decision of travelers to choose a specific destination. Prices are reasonable and appropriate with quality services provided , which can give a mark plus for travelers (Prasetya & Julius, 2018) . If the price is considered too high or not comparable with the experience received, This can cause dissatisfaction and influence the image of destination tourists (Mentang *et al.*, 2021) . Infrastructure is also important in experience tourists. Good infrastructure covers smooth transportation, comfortable accommodation, and facilities adequate general (Mengga & Winerungan, 2021) . Lack of infrastructure quality or Insufficient can hinder experience tourists and even reduce Power pull destination (Budiono, 2021) . Therefore, improving the infrastructure of tourists is an important thing to be noticed to increase satisfaction among tourists in Raja Ampat.

As for the basis theory study, this is what becomes reference quality is one of the aspects used To measure the level of satisfaction of consumers like quality service, process quality, and quality results (Alzoubi *et al.*, 2020; Rahayu, 2020; Chan, 2022) . Price is one aspect that needs to be measured to determine consumer satisfaction because reasonable prices are comparable with facilities and services (Tuncer, 2021; Uzir *et al.*, 2021) . Infrastructure is one aspect for measuring consumer satisfaction from existing facilities and infrastructure (Abror *et al.*, 2020; Prentice, 2020; Zhou, 2021) . The research not yet done precisely measures quality, price, and infrastructure at the destination Raja Ampat tourism, the study also measures how much influences the level of satisfaction travelers so that interest return to Raja Ampat increases for method use quantitative with descriptive statistical approach with the use SPSS software.

## 2. METHODS

This study in Raja Ampat Regency, Southwest Papua, with subject Tourists who come to Raja Ampat. Quantitative research methods for data using questions to tourists who are both nationals and Indonesian citizens. For data analysis using SPSS software version 29:

- Validity and reliability test
- Multiple Regression Analysis Test
- Normality Test
- Multicollinearity Test

Hypothesis in Study This that is

H1: Quality Service is influential, positive, and significant against the satisfaction of customers and interest in returning tourists.

H2: Price Matters Positive and significant to customers' satisfaction and interest in returning tourists.

H3: Infrastructure is influential, positive, and significant to the satisfaction of Customers and Returning Tourists.

H4: Satisfaction Customer Influential Positive and significant to Return of tourists.

### 3. FINDINGS AND DISCUSSION

#### Instrument Validity and Reliability Test

validity test and reliability test for test reliability instruments, use a questionnaire study as tool primary data collector. Valid means an instrument that can be used for this study. Reliable means instrument the whole used reliably for measuring object research. Validity and reliability test in study This use SPSS program helps.

**Table 1. Results of Instrument Validity Test**

Correlations													
Indicator Code	P1	P2	P3	P4	P5	P6	P7	P8	H1	H2	H3	H4	H5
Pearson Correlation	,726 **	,699 **	,630 **	,670 **	,627 **	,610 **	,709 **	,816 **	,535 **	,579 **	,510 **	,472 **	,370 **
N	51	51	51	51	51	51	51	51	51	51	51	51	51
Indicator Code	I1	I2	I3	I4	I5	I6	I7	I8	I9	To1	2nd	The 3rd	MK
Pearson Correlation	,684 **	,692 **	,779 **	,692 **	,690 **	,676 **	,616 **	,702 **	,445 **	,737 **	,776 **	,659 **	,746 **
N	51	51	51	51	51	51	51	51	51	51	51	51	51

\*\*. Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

From the results of the validity test above For all instruments are stated all valid because higher correlation value large  $> 0.3$ .

Measure influence variable independent to variable dependent. The results from the Regression test using SPSS as follows:

**Table 2. Instrument Reliability Test**

Reliability Statistics	
Cronbach's Alpha	N of Items
0.945	26

From the results of the instrument reliability test using SPSS, it was obtained that the whole instrument can be used to measure this study Because Cronbach's Alpha value is higher large  $> 0.7$ .

#### Multiple Linear Regression Test

**Table 3. Methods for analyze in SPSS**

Variables Entered / Removed <sup>a</sup>			
Model	Variables Entered	Variables Removed	Method
1	Tourist Satisfaction , Price, Infrastructure, Service Quality <sup>b</sup>		Enter
<b>a. Dependent Variable : Interest_Back</b>			
<b>b. All requested variables entered .</b>			

Method for analyzing multiple linear regression with SPSS using Enter method. Next, view how to variable independent explain variable

dependent. Higher values have a significant influence on Table 4.

**Table 4. R-Square**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,747 <sup>a</sup>	0.558	0.519	0.531	2,192
a. Predictors : ( Constant ), Tourist Satisfaction , Price, Infrastructure, Service Quality					
b. Dependent Variable : Interest_Back					

From the results of the above analysis, the independent variable explains a significant dependent variable of 0.558 or 55.8% of the Interest Variable returns travelers influenced by the quality variable service, price, infrastructure, and customer satisfaction.

### Normality Test

Ensuring the residuals (errors) are normally distributed: One of the main assumptions in linear regression is that the error is normally distributed. The results of the normality test analysis as in table 5.

**Table 5. Data Normality Test**

	Tests of Normality					
	Kolmogorov-Smirnov <sup>a</sup>		Shapiro Wilk			Sig .
	Statistics	df	Sig .	Statistic s	df	
Quality_of_Service	0.079	51	,200 *	0.972	51	0.262
Price	0.158	51	0.003	0.966	51	0.146
Infrastructure	0.151	51	0.005	0.958	51	0.065
*. This is a lower bound of the true significance .						
a. Lilliefors Significance Correction						

The results analysis in table 5 showed that the data obtained for this study is normally distributed because **P-Value (0.262) > 0.05** means the data is normally distributed.

### Multicongruence Test

Multicollinearity test aiming to avoid biased results If there is multicollinearity (VIF value > 10 or Tolerance < 0.10), so it was carried out analysis this is what can be seen the results are in table 6.

**Table 6. Multicongruence Test**

Model	Coefficients <sup>a</sup>	
	Collinearity Statistics	
	Tolerance	VIF
1 ( Constant )		
Quality_of_Service	0.274	3,644
Price	0.641	1,559
Infrastructure	0.332	3,010

	Tourist_Satisfaction	0.403	2,483
a. Dependent Variable : Interest_Back			

From the results analysis multicollinearity concluded that the data is not have biased data because VIF value  $3.644 < 10$  or Tolerance Value  $0.274 > 0.10$ .

### Hypothesis Testing

Hypothesis testing used For measure existence influence between the dependent and independent variables whether influential positive or negative. Hypothesis results can seen in table 7 and 8 of results analysis with SPSS.

**Table 7. Coefficients**

Model	Coefficients <sup>a</sup>		Sig .
	Unstandardized Coefficients	B	
1 ( Constant )	0.349		0.543
Quality Service	0.070		0.039

Price	0.020	0.607
Infrastructure	0.003	0.909
Tourist Satisfaction	0.114	0.032
<b>a. Dependent Variable : Interest_Back</b>		

Based on table 7, there are 3 variables dependent, 1 variable intermediary and independent variables. Return Interest (Y) while variable free is Quality Service (X1), Price (X2), Infrastructure (X3) and Satisfaction Customer (X4). Regression model based on results the above analysis is:

$$Y = 0.349 + 0.070X1 + 0.020X2 + 0.003X3 + 0.114X4 + e.$$

Hypothesis 1 (**Quality Service**):

$H_0$ : Quality service No influential significant to interest return.

$H_a$ : Quality service influential significant to interest return.

Conclusion: Since  $\text{Sig.} = 0.039 (< 0.05)$ ,  $H_0$  rejected, meaning quality service influential significant to interest return.

Hypothesis 2 (**Price**):

$H_0$ : Price not influential significant to interest return.

$H_a$ : Price has a significant effect on interest returns.

Conclusion: Since  $\text{Sig.} = 0.607 (> 0.05)$ ,  $H_0$  accepted, meaning price No influential significant to interest return.

Hypothesis 3 (**Infrastructure**):

$H_0$ : Infrastructure No influential significant to interest return.

$H_a$ : Infrastructure influential significant to interest return.

Conclusion: Since  $\text{Sig.} = 0.909 (> 0.05)$ ,  $H_0$  accepted, meaning infrastructure No influential significant to interest return.

Hypothesis 4 (**Satisfaction Travelers**):

$H_0$ : Satisfaction traveler No influential significant to interest return.

$H_a$ : Satisfaction traveler influential significant to interest return.

Conclusion: Since  $\text{Sig.} = 0.032 (< 0.05)$ ,  $H_0$  rejected, meaning satisfaction traveler influential significant to interest returns.

After analyzing the influence of each variable, measuring and evaluating the regression model in a way overall whether significant or No with the F test in table 8 below.

**Table 8. F Test**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16,356	4	4,089	14,494	,000 <sup>b</sup>
	Residual	12,977	46	0.282		
	Total	29,333	50			
<b>a. Dependent Variable : Interest_Back</b>						
<b>b. Predictors : ( Constant ), Tourist Satisfaction , Price, Infrastructure, Service Quality</b>						

From the results F test analysis obtained that the model is overall significant and influential positive to interest Tourists Return to king 4 because P- Value (0.000)  $< 0.05$ .

### 3.2. Discussion

The findings in the study are that prices and infrastructure are not significant to interest Tourists returning to Raja Ampat, while

according to this study by Ambitan and Wulandari, Price is one of the factors important in the decision of a traveler to visit. Research by Ambitan shows that image tourism and overall satisfaction have a significant influence to interest visit return tourists at Lake Linow (Ambitan & Wulandari, 2023). This is in line with research by Wulandari, which emphasizes the importance of a marketing strategy that considers price in the 4A context (Attraction, Accessibility, Amenity, and Ancillary) for interesting interest tourists

(Wulandari, 2023). With affordable and appropriate prices with value received, tourists tend to own intention for return.

As well as infrastructure also plays a role crucial in attractive interest tourists. Raharjo emphasized that development infrastructure and good transportation, including accessibility and safety, have an impact significant to visit tourists, especially in Bali (Raharjo, 2023). This research shows that good infrastructure increases travelers' experience and creates a positive perception of the destination, which in turn increases the intention for the future. In addition, research shows that quality infrastructure can influence satisfaction among visitors, who are factors important in the intention to visit back (Irdiana et al., 2021).

However, why do tourists visit Raja Ampat, according to the research data, considering prices and infrastructure? That is not important, maybe:

1. Tourists may consider the price of travel, accommodation, or services in Raja Ampat too expensive compared to other destinations. However, they still choose Raja Ampat because the main attraction is its natural beauty, not the price.
2. Factors such as quality service and satisfaction among traveller's influence tourists' decisions more, so the price effect becomes insignificant.
3. Tourists who come to Raja Ampat may already understand the limitations of infrastructure (such as access to transportation, internet, or public facilities) and understand this because the main attraction is the natural beauty, not the convenience of the infrastructure.

Infrastructure Possible not to influence interest they for return because objective main tourists in Raja Ampat enjoy the beauty of natural lower sea and scenery, not facility or comfort.

The study results measure the influence of quality, price, and infrastructure on the satisfaction and interest of returning tourists to Raja Ampat. That which influences the Return of tourists is quality service and satisfaction travelers, while the variables that do not influence that are prices and infrastructure for tourists. However, an overall model for measuring interest

in the return of the tourist is significant or influenced by quality service, price, infrastructure, and tourist satisfaction.

## ACKNOWLEDGEMENT

The researcher thanks the Ministry of Education, Culture, Research, and Technology for providing financial support to support this research through funding Research of Beginner Lecturers Affirmation (PDP Affirmation) Implementation Year 2024, with Contract Number 116/E5/PG.02.00.PL/2024|077/KTKII.3.AU/J/2024. In addition, we also express our gratitude to Universitas Muhammadiyah Sorong for providing the necessary facilities for the smooth implementation of this KEMDIKBUDRISTEK Research Grant.

## References

Abror, A. et al. (2020) 'Service quality, religiosity, customer satisfaction, customer engagement and Islamic banks' customer loyalty', *Journal of Islamic Marketing*, 11(6), pp. 1691–1705. Available at: <https://doi.org/10.1108/JIMA-03-2019-0044>.

Alzoubi, H. et al. (2020) 'Do perceived service value, quality, price fairness and service recovery shape customer satisfaction and delight? A practical study in the service telecommunication context', *Uncertain Supply Chain Management*, 8(3), pp. 579–588. Available at: <https://doi.org/10.5267/j.uscm.2020.2.005>.

Ambitan, O., Lapian, SJ, & Poluan, JG (2023). The influence of price factors, physical evidence tourism image and overall satisfaction on the interest of tourists to revisit the Linow Lake tourist attraction in Tomohon City. *EMBA Journal: Journal of Economic, Management, Business and Accounting Research*, 11(1), 1283–1294. <https://doi.org/10.35794/emba.v11i1.46463>

Asrizal Efendy Nasution and Nasution, SMA (2021) 'The Influence of Service Quality, Emotional Factors, Cost and Convenience on Consumer Satisfaction of Gojek Service Application Users in Medan', *Proceedings of the National Entrepreneurship Seminar*, 2(1), 2021, pp. 142-155 , 2(

Budiono, A. (2021) 'The Influence of Product Quality, Price Perception, Promotion, Location, Service Quality on Consumer Loyalty Through Consumer Satisfaction at Bebek Kaleo Tebet Restaurant, South Jakarta During the Covid-19 Pandemic', *SEGMENT Journal of Management and Business* . pdfs.semanticscholar.org. Available at: <https://doi.org/10.37729/sjmb.v17i2.6868>.

Chan, VHY (2022) 'Mediating effects on the relationship between perceived service quality and public library app loyalty during the COVID-19 era', *Journal of Retailing and Consumer Services* , 67. Available at: <https://doi.org/10.1016/j.jretconser.2022.102960>.

Irdiana, S., Ariyono, KY, & Drmawan, K. (2021). The influence of halal tourism on visitor satisfaction and intention to revisit. *Jurnal Cakrawala Ilmiah*, 1(3), 421-428. <https://doi.org/10.53625/jcijurnalcakrawalaindonesia.v1i3.620>.

Iriansyah, Y., Rachmadhani, MM and Nur, MA (2023) 'Analysis of Service Quality on Customer Satisfaction of Sriwijaya Air Yasir Airlines', *Industrial Engineering Journal – System* , 01(2), pp. 1-15.

Supriatna, II *et al.* (2018) 'Analysis of Understanding, Perception and Attitude of the Community Towards the Industrial Engineering Journal Method Vol 4 (1): 18-22 2018', 4(1), pp. 18–22.

Mengga, E., Winerungan, R. and ... (2021) 'The Influence of Service Quality and Promotion on Consumer Satisfaction at Ld Mart Tataaran 2. *Management and Business* [Preprint]. Available at: <http://ejournal.fekon-unima.ac.id/index.php/JAK/article/view/2417>.

Mentang, JJ, Ogi, IW, and Samadi, R. (2021) 'The Influence of Product Quality and Service Quality on Consumer Satisfaction at Marina Hash Restaurant in Manado During the COVID-19 Pandemic', *EMBA Journal* , 9(4), pp. 680–690.

Nursyamsu, L. *et al.* (2023) 'Analysis of Visitor Satisfaction on the Quality of Nongsa Old Village Beach Tourism Infrastructure', *Journal of Architectural Design and Development* , 4(2), pp. 180–181.

Prasetya, W. and Yulius, C. (2018) 'The Effect of Product Quality and Brand Image on Consumer Satisfaction and Repurchase Intention: A Study on Eatlah Products', *Jurnal Teknologi* , 11(2), pp. 92–100. Available at: <https://ejournal.akprind.ac.id/index.php/jurtek/article/view/1399>.

Pratama, Y. *et al.* (2021) 'The Influence of Service Quality and Product Quality on Consumer Satisfaction', *Business & Science and Technology Magazine* , 14(2), pp. 56–68. Available at: <https://doi.org/10.55208/bistek.v14i2.231>.

Prentice, C. (2020) 'The impact of artificial intelligence and employee service quality on customer satisfaction and loyalty', *Journal of Hospitality Marketing and Management* , 29(7), pp. 739–756.

Raharjo, EP, Adidana, IKSP, Candrarahayu, AM, & Fitasiari, Y. (2023). The influence of transportation infrastructure development in supporting foreign tourist visits to Bali province. *Journal of Transportation and Logistics Technology*, 4(1), 1-10. <https://doi.org/10.52920/jttl.v4i1.103>

Rahayu, E. (2020) 'The Effect of Price and Product Quality on Consumer Satisfaction at T-Mart Express Indonesia', *Journal of Strategic Management and Business Applications* , 3(1), pp. 1–10. Available at: <https://doi.org/10.36407/jmsab.v3i1.114>.

Supriatna, II and Affandi, F.- (2021) 'Analysis of Strategy to Increase Competitiveness Using the IPA (Importance Performance Analysis) Method at the Rinjani Plaza Hotel in Sorong City', *Method: Journal of Industrial Engineering* , 4(2), pp. 29–38. Available at: <https://doi.org/10.33506/mt.v4i2.989>.

Sutrisno, W. (2017) 'Supply analysis for development management standards in Raja Ampat ecotourism area', *JABE (Journal of Applied Business)* , pp. 241–255. Available at: [https://journal.lppmunindra.ac.id/index.php/JABE/article/download/1435/1122](https://journal.lppmunindra.ac.id/index.php/JABE/article/view/1435%0Ahttps://journal.lppmunindra.ac.id/index.php/JABE/article/download/1435/1122).

Taborat, M. (2020) 'Analysis of the Influence of Characteristics and Financing Status on Inpatient Satisfaction and Loyalty of Raja Ampat Regional General Hospital', *Nursing Inside Community* , 2(2), pp. 73–85.

Tuncer, I. (2021) 'Service Quality, Perceived Value and Customer Satisfaction on Behavioral Intention in Restaurants: An Integrated Structural Model', *Journal of Quality Assurance in Hospitality and Tourism* , 22(4), pp. 447–475. 80/1528008X.2020.1802390.

Uzir, MUH *et al.* (2021) "The effects of service quality, perceived value and trust in home delivery service personnel on customer satisfaction: Evidence from a developing country', *Journal of Retailing* [Preprint]. Available at:  
<https://www.sciencedirect.com/science/article/pii/S0969698921002873>.

Widodo, S. (2021) 'The Influence of Product Quality, Service Quality and Price on Consumer Satisfaction at Molivia Cafe (Case Study on Consumers of Molivia Cafe, Jalan HM Joni, Teladan Timur, Medan City)', *Angewandte Chemie International Edition*, 6(11) , 951–952. , 13(1), pp. 2013–2015.

Wulandari, OT and Jannah, M. (2023). Tourism marketing strategy 4a (attraction, accessibility, amenity, and ancillary) towards tourist interest in revisiting Camplong Beach, Sampang Regency. *Journal of Administration and Management*, 13(4), 411-418.  
<https://doi.org/10.52643/jam.v13i4.3590>

Zhou, Q. (2021) 'A study on factors influencing service quality and loyalty intention in mobile banking', *Journal of Retailing and Consumer Services* , 60.