



Department of Digital Business

**Journal of Artificial Intelligence and Digital Business (RIGGS)**

Homepage: <https://journal.ilmudata.co.id/index.php/RIGGS>

Vol. 3 No. 2 (2024) pp: 6-13

P-ISSN: 2963-9298, e-ISSN: 2963-914X

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## The Influence To Service Quality, Facilities, and Ticket Price on Passenger Satisfaction at PT. Pelni (Persero) Baubau Branch

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### **Abstrak**

*Sea transportation is the most important means of inter-island connectivity in Indonesia. Companies must try to make customers feel satisfied by providing better offers and services, companies must be able to maintain their market position in the midst of increasing competition. The purpose of this study was to evaluate the variables of service quality, facilities and ticket prices partially on passenger satisfaction at PT. Pelni (Persero) Baubau Branch. Evaluating the quality of services, facilities and ticket prices simultaneously on passenger satisfaction and evaluate which of the three parameters used has the most influence on passenger satisfaction. The data used in this study are primary data obtained by distributing questionnaires to the passengers of PT. Pelni (Persero) Baubau Branch has 50 employees using multiple linear regression analysis techniques. The results showed that Service Quality (X1) had a significant level of  $0.013 < 0.05$ . This means that service quality has a positive and significant effect on passenger satisfaction. Facility (X2) has a significant level of  $0.012 < 0.05$ . This means that facilities have a positive and significant effect on passenger satisfaction. Ticket prices (x3) have a significant level of  $0.019 < 0.05$ . This means that ticket prices have a positive and significant effect on passenger satisfaction.*

*Keywords : Service Quality, Facilities, Ticket Prices, Passenger Satisfaction.*

### **1. Introduction**

As the largest archipelagic country in the world, Indonesia has more than 17,000 islands with 95,181 km long coastline of the country's area which is a maritime area. Sea transportation is a vital element in the life of the nation in fostering the unity and integrity of the Indonesian nation as an archipelagic country. In addition, the role of sea transportation is certainly the main means of realizing inter-island connectivity in Indonesia [1].

Geographically, Baubau City is located in the southern part of Southeast Sulawesi Province, precisely on Buton Island, which is located at  $05^{\circ}15' - 05^{\circ}32'$  South Latitude and between  $122^{\circ}30' - 122^{\circ}46'$  East Longitude with an area of about 221 km<sup>2</sup>. The administrative boundaries for the City of Baubau are as follows: To the north it is bordered by Kapontori District, To the east it is bordered by Pasarwajo District, To the south it is bordered by Batauga District, and To the west it is bordered by the Buton Strait.

Ports are an integral part of the national port system in order to realize reliable and highly capable port operations which ultimately guarantee national efficiency that has global competitiveness in the context of supporting national and regional development. In this case the port can create sea transportation that is safe, orderly and smooth, provides loading and unloading facilities and an adequate information system and is able to provide good services to users of port services.

PT. Pelni (Persero) Baubau Branch as a public service company providing sea transportation services has also been affected by the economic shock. In conditions of very tight competition in the transportation business, maintaining customer satisfaction is a good step to remain competitive and to dominate the existing competition. With the current implementation of development, service continues to play an important role as one of the sectors that is currently receiving very serious attention from the government, this is indicated by the ease of procuring ships and their adequate facilities to facilitate the flow of passenger transportation between islands and expedite relations between producer regions and areas of users in areas of more consumers.

Companies are required to try to make customers feel satisfied by providing better offers and services, considering that companies must be able to maintain their market position in the midst of increasingly fierce competition. One of them is by developing a strategy to retain consumers through service quality. The strategy put in place to be able to maintain customer loyalty is to provide quality services, so that here the company's

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The Influence To Service Quality, Facilities, and Ticket Price on Passenger Satisfaction at PT. Pelni (Persero) Baubau Branch

management must pay attention to quality according to the requirements demanded by customers [2]. The management of the company is trying to improve the quality of service by always paying attention to what the needs and expectations of customers and consumers are. How do they design services for consumers so that consumers always feel satisfied with the products or services offered by the company.

Ticket prices play an important role at the macro level for the economy in general and at the micro level for consumers and companies [3]. For the economy, ticket prices can affect the level of wages, rent, interest, etc.; for consumers, ticket prices can be one of the considerations in making purchasing decisions while for companies, price is the only element of the marketing mix that generates income. One other factor that can influence purchasing decisions is the company's service quality. Quality of service in the transportation business is one of the thoughts that is often used in assessing the services provided to consumers. Consumers who get satisfaction then these consumers can use these services again in the future. Companies that can provide quality service and consumers feel satisfied will create repurchases, and vice versa.

The creation of quality services plays an important role in shaping customer satisfaction, besides that it is closely related to creating profits for the company. The higher the quality of the services provided by the company to its customers, the higher the satisfaction felt by customers. By creating service quality, it is hoped that there will be no more customers who feel disappointed over the low service quality. The high or low quality of shipping services presented by shipping resource factors and the interaction of activities that are driven through certain processes or procedures in utilizing existing resources. PT. Pelayaran Pelni (Persero) Baubau Branch tries to provide good and satisfying service to its passengers in order to maintain the trust that has been given to the community so far, therefore as an effort to improve service quality, PT. Pelni (Persero) Baubau Branch needs to know how far the satisfaction level of PT. Pelni (Persero) Baubau Branch for the services provided so far.

Based on the description above, the researcher intends to conduct research by taking the title "The Influence of Service Quality, Facilities, and Ticket Prices on Passenger Satisfaction at PT. Pelni Baubau Branch".

## 2. Research Methods

This research uses a descriptive research type with a quantitative approach. Quantitative research method, is a research method used to examine certain populations or samples, data collection uses research instruments, data analysis is quantitative/statistical in nature, with the aim of testing the established hypotheses.

### A. Data Types and Sources

#### 1) Data Types

The type of data used in this research is quantitative data.

#### 2) Data Sources

Primary Data, namely data obtained from the results of distributing questionnaires carried out on customers or passengers of PT. Pelni (Persero) Baubau Branch.

Secondary data is data obtained in a processed form, such as company documents, literature books, journals and other data sources.

### B. Data Analysis

#### 1) Validity test

The validity test is intended to assess the extent to which a measuring instrument is believed to be used as a tool to measure question items or questionnaire statements in research.

#### 2) Reliability test

Reliability is the similarity of measurement or observation results when the facts or realities of life were measured or observed many times at different times. Tools and ways of measuring or observing both play an important role at the same time [4].

#### 3) Classic assumption test

The classical assumption test in this study was carried out to find out whether the specified sample could be analyzed and to see whether the designed predictive model could be included in a series of data, it is necessary to test the data.

#### 4) Normality test

The purpose of the normality test is to test whether in the regression model the dependent variable and the independent variable both have a normal distribution or not. A good regression model has normal or close to normal data distribution

#### 5) Multicollinearity Test

The way to detect multicollinearity symptoms is to look at the VIF (Variance Inflation Factor), if the VIF value is  $< 10$  then it is considered that there is no multicollinearity violation, but if on the contrary  $VIF > 10$  then it is considered that there is a multicollinearity violation.

6) Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from one residual observation to another.

7) Multiple Linear Regression Analysis

The analysis used in this study is multiple linear regression. T test for partial test and F test for simultaneous test

Multiple Regression Formula:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + e \quad (1)$$

Information:

Y = passenger satisfaction

X<sub>1</sub> = servive quality

X<sub>2</sub> = facilities qquality

X<sub>3</sub> = Ticket price

Bo = Constant

β<sub>1</sub>.....β<sub>n</sub> = Regression coeffisient

E = Confounding variables outside the independent variables

3. Result and Discussions

A. Validity And Reliability Test

In this section, the validity of the question items posed according to the research variables will be tested, namely service quality, facilities, ticket prices and passenger satisfaction. Overall, the results obtained from a questionnaire consisting of 4 research variables consisting of 28 question items. The validity test in this study is to correlate the total of each indicator with the total of all items in the indicator with the total of all items in each variable. For more details, the variables and items in this study can be seen in the table below:

1) Variable Validity Test X1 Quality of service

Table 1. Service Quality Validity Test X1

Indicator	Correlatio n/r count	Signifi- cance	Informa- tion
X1.1	0,575	0,000	Valid
X1.2	0,672	0,000	Valid
X1.3	0,678	0,000	Valid
X1.4	0,600	0,000	Valid
X1.5	0,716	0,000	Valid
X1.6	0,706	0,000	Valid
X1.7	0,719	0,000	Valid
X1.8	0,618	0,000	Valid
X1.9	0,524	0,000	Valid
X1.10	0,552	0,000	Valid

Based on the table above, it can be seen that each indicator variable or question item has a calculated r value that is greater than r table and a significance level of less than 0.05, so it can be concluded that the instrument for all questions can measure passenger satisfaction above Valid.

2) Test the validity of the X2 Facility variable

Table 2 X2 Facility Validity Test

Indicator	Corelation /r count	Signifi- cance	Informa- tion
X2.1	0,628	0,000	Valid
X2.2	0,525	0,000	Valid
X2.3	0,675	0,000	Valid
X2.4	0,753	0,000	Valid
X2.5	0,721	0,000	Valid
X2.6	0,623	0,000	Valid
X2.7	0,594	0,000	Valid
X2.8	0,434	0,002	Valid

Based on the table above, it can be seen that each indicator variable or question item has an r count value greater than r table and a significance level of less than 0.05, so it can be concluded that the above instrument is valid.

3) Test the Validity of Variable X3 Ticket Prices

Table 3 X3 Ticket Price Validity Test

Indicator	Corelation/rCount	Significance	Infomation
X3.1	0,696	0,000	Valid
X3.2	0,704	0,000	Valid
X3.3	0,735	0,000	Valid
X3.4	0,708	0,000	Valid
X3.5	0,760	0,000	Valid

Based on the table above, it can be seen that each indicator variable or question item has an r count value greater than r table and a significance level of less than 0.05, so it can be concluded that the above instrument is valid.

4) Test the Validity of Variable Y Passenger Satisfaction

Table 4. Test the Validity of Passenger Satisfaction Y

Indicator	Correlation/r count	Significance	Information
Y1.1	0,749	0,000	Valid
Y1.2	0,727	0,000	Valid
Y1.3	0,800	0,000	Valid
Y1.4	0,752	0,000	Valid
Y1.5	0,731	0,000	Valid

Based on the table above, it can be seen that each indicator variable or question item has a calculated r value greater than r table and a significance level of less than 0.05, so it can be concluded that the above instrument is valid.

5) Reliability Test

The research instrument reliability test was conducted to determine the reliability or level of confidence of a statement in measuring the variables studied.

Variable	Alpha Cronbach	Information
Service quality (X <sub>1</sub> )	0,837	Reliabel
Facility (X <sub>2</sub> )	0,784	Reliabel
Ticket price (X <sub>3</sub> )	0,767	Reliabel
passenger satisfaction (Y)	0,807	Reliabel

Based on the table above it can be explained as follows:

- a) The service quality reliability value is 0.837 greater than 0.6 and is considered reliable.
- b) The reliability value of the facility is 0.784 which is greater than 0.6 and is considered reliable.
- c) The value of ticket price reliability is 0.767 greater than 0.6 and is considered reliable.
- d) The reliability value of passenger satisfaction is 0.807 which is greater than 0.6 and is considered reliable.

B. Classic assumption test

1) Normality test

The way to find out normality is to look at the normal probability plot which compares the normal distribution. The normal distribution will form a straight line diagonally. If the data distribution is

normal, then the line that describes the actual data will follow the diagonal line.

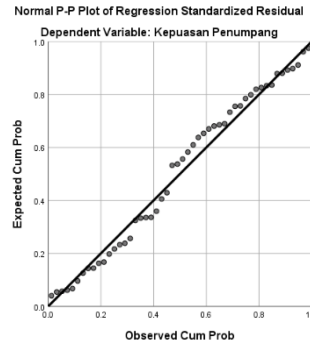


Figure 1 Normality Test Graph

The normal plot graph shows that the data pattern spreads around the diagonal line and follows the direction of the diagonal line, so it can be said that the regression equation satisfies the normality test. Ghozali (2015) states that the normality test with a graph can be misleading if it is not done carefully, visually it looks normal but statistically it is not, or vice versa visually it is not normal even though it is statistically normal. Therefore it is recommended that instead of using a graphical test supplemented with a statistical test, one of them is by using the non-parametric.

Kolmogorov-Smirnov statistical test. If the K-S results have a P-value  $> 0.05$ , it can be said that the unstandardized residual is normal. The test results are presented in the following table:

### One-Sample Kolmogorov-Smirnov Test

			Unstandar zed Residual
N			50
Normal Parameters <sup>a,b</sup>			
	Mean		.0000000
	Std. Deviation		2.12957182
Most Extreme Differences	Absolute		.082
	Positive		.071
	Negative		-.082
Test Statistic			.082
Asymp. Sig. (2-tailed)			.200 <sup>c,d</sup>

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

Based on Table it can be seen that the Kolmogorov Smirnov value is known to have a significance value of  $0.200 > 0.05$ , so it can be concluded that the residual values are normally distributed.

### 2) Multicollinearity Test

Multicollinearity can be seen from the tolerance value and variance inflation factor (VIF). If the tolerance is more than 0.1 and VIF is less than 10, then the regression model can be said to be free from

multicollinearity.

Table 5 Multicollinearity Test Results

Variabel	Tolerance	VIF	Information
Service Quality (X <sub>1</sub> )	0,971	1,030	Non Multikolinier
Facility (X <sub>2</sub> )	0,928	1,077	Non Multikolinier
Ticket Price(X <sub>3</sub> )	0,941	1,063	Non Multikolinier

Based on the table above, it can be assumed that there are no symptoms of multicollinearity between each independent variable, namely by looking at the tolerance values for the three independent variables which are greater than 10 percent (0.1) and the VIF (Variance Inflation Factor) value is less than 10.

### 3) Heteroscedasticity Test

To predict whether there is heteroscedasticity in a regression model, it can be seen from the scatterplot image pattern of the model.

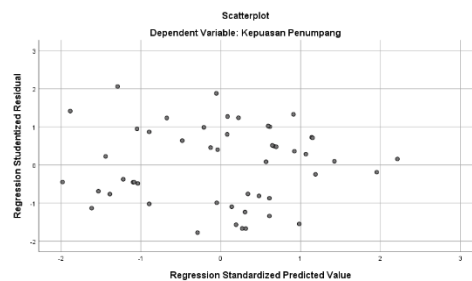


Figure 2 Normal P-P Plot of Heteroscedasticity Test Results

Based on the scatterplot above, the scatter plot between the standardized residual \*SRESID and the standardized predicted value \*ZPRED does not form a specific pattern, so the residuals can be considered to have constant variance (homoscedasticity). In conclusion, the regression is free from cases of heteroscedasticity and meets the requirements of the classical assumptions about heteroscedasticity.

## C. Hypothesis Analysis and Testing

### 1) Multiple Linear Regression Analysis

Based on the data presented in the table above, it will then be analyzed with the help of the SPSS 26.0 application to determine the magnitude of the influence of service quality, facilities and ticket prices on passenger satisfaction.

Table 6 Multiple Linear Regression Test Results

Model	Unstandardized Coefficients	
	B	Std. Error
Constant	13.554	5.112
Service Quality	0.190	0.074
Facility	0.300	0.116
Ticket Price	0.259	0.134

Based on the SPSS output in the coefficients table, the regression equation can be formulated as follows:

$$Y = 13.554 + 0.190 X_1 + 0.300 X_2 + 0.259 X_3 + \epsilon$$

From the above equation can be explained as follows:

- a. A constant of 13,554 indicates the magnitude of the influence of service quality (X1), facilities (X2), and ticket prices (X3) on passenger satisfaction (Y), if the independent variable does not change, it is predicted that passenger satisfaction will be 13,554 units;
- b. The regression coefficient for service quality (X1) is 0.190, meaning that if service quality (X1) increases by 1 unit, then passenger satisfaction (Y) will increase by 0.190 units, assuming the other independent variables are constant;
- c. The regression coefficient for the facility (X2) is 0.300, meaning that if the facility (X2) increases by 1 unit, then passenger satisfaction (Y) will increase by 0.300 units, assuming the other independent variables are constant;
- d. The regression coefficient for ticket prices (X3) is 0.259, meaning that if the ticket price (X3) increases by 1 unit, then passenger satisfaction (Y) will increase by 0.259 units, assuming the other independent variables are constant;

2) Coefficient of Determination (*R Square*)

The coefficient of determination can be seen in the model summary table. For multiple linear regression, Adjusted R Square is used, because it has been adjusted for the number of independent variables used.

**Table 7 Determination Coefficient Test Results**

Model				
	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.770 <sup>a</sup>	0.621	0.601	2.197

Based on the table above, the correlation value between passenger satisfaction variables and the three independent variables in general (R) is 0.770 indicating that the independent variable to the dependent variable has a relationship with the "strong" category (Sugiyono, 2015: 216).

The table above also shows that R Square is 0.621 meaning that the influence of service quality, facilities, and ticket prices has an effect on passenger satisfaction of 62.1% while the remaining 37.9% is influenced by other unknown variables and is not included in this regression analysis .

The table above also shows adjusted R Square of 0.601 (always smaller than R Square). This means that 60.1% of the variation in passenger satisfaction is explained by the variation of the three independent variables. While the remaining 39.9% is explained by other variables not examined in the study.

3) Test T

The t test was conducted to determine the influence of each independent variable partially (individually) on the dependent variable. The t-table value is obtained from the degree of freedom (df) = n-k, where n is the number of samples, and k is the number of variables so that (df) = 50 -4 = 46, then based on the t table the value obtained is from a significance level of 5 % is 1.677. The value of the t test can be seen from the p-value or significant value of  $t < \alpha : 5\% (0.05)$  for each independent variable.

**Table 8 T test Result**

Model	Coeffition	T Count	T table (0,05)	Sig	Information
Service Quality	0,340	2.577	1.678	0.013	Signifikan
Facility	0,351	2,600	1.678	0.012	Signifikan
Ticket Price	0,259	1.934	1.678	0.019	Signifikan

In the table above, the results of the t test can be known by comparing the calculated t value with t table, the significance value is less than 0.05

- a. In the service quality variable (X1), the t count value is 2.577 > t table 1.678 and the significance value is 0.013 <0.05 (positive effect).
- b. In the Facility variable (X2), the t count value is 2,600 > t table 1,678 and the significance value is 0.012 <0.05 (positive effect).
- c. In the ticket price variable (X3), the t count value is 1,934 > t table 1,678 and the significance value is 0.019 <0.05 (positive effect).

From the presentation of the data above, it can be concluded that H2 is accepted with the hypothesis that reads Service Quality, and Facilities and Ticket Prices have a partial effect on passenger satisfaction.

Then from the presentation of the data above it can be concluded that the Facility variable (X2) has a dominant influence with t count 2.600 and a significance of 0.012. therefore H3 is rejected with the hypothesis that the service quality variable is dominant on passenger satisfaction.

4) F test

The F (Simultaneous) test aims to determine whether there is a joint effect between service quality, facilities and ticket prices on passenger satisfaction. The F-table value is obtained from the degree of freedom (df) for the numerator = k - 1, where k is the number of variables so that (df) for the numerator = 4 - 1 = 3. Then the degree of freedom (df) for the denominator = n - k, where n is the number of samples and k is the number of variables so that (df) for the denominator = 50 - 4 = 46 then based on table r the value obtained from a significance level of 5% numerator 3 and denominator 46 is 2,807.

Table 8 F test result

F value	F table	P Value/Sig.	Information
4.358	2.807	0.009	H <sub>1</sub> accepted

Based on the table above, it can be seen that the calculated F value is 4.358 > F table 2.807, H1 is accepted. This can indicate that there is a positive and significant influence between the variables of service quality, facilities, and ticket prices simultaneously or simultaneously on passenger satisfaction.

4. Conclusion

The results showed that service quality (X1) had a regression coefficient of 0.340 on customer satisfaction (Y) and a t-count of 2.577 and a t-table of 1.677 with a significant level of 0.013 <0.05. The results showed that the average (X2) has a regression coefficient of 0.351 on consumer satisfaction (Y) and a t count of 2.600 and t table of 1.667 with a significant level of 0.012 <0.05. The results showed that ticket prices (X3) had a regression coefficient of 0.259 on consumer satisfaction (Y) and a t count of 1.934 and t table of 1.667 with a significant level of 0.019 <0.05. This means that the quality of service, facilities and ticket prices have a positive and significant effect on passenger satisfaction. The results showed that all independent variables of service quality, facilities and ticket prices on customer satisfaction had a significant value of 0.009 <0.05 or it can be seen from the (ANNOVA) F count 4.358 > F table 2.807. This means that the quality of service, facilities and ticket prices have a significant effect on passenger satisfaction. The results showed that the facility variable (X2) has a dominant influence on passenger satisfaction with a t-count value of 2.600 greater than the service quality variable (X1) t-count value of 2.577 and ticket prices (X3) t-count value of 1.934.

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