

Influence of Rate and Facilities on User Satisfaction of Damri Transportation Services in North Central Timor District

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Abstract

The problems raised in this study are: Does the tariff (X1) and whether the facilities (X2) affect the satisfaction of Damri transportation service users in Kab. TTU? The aim of this study is to determine the effect of tariffs (X1) and the effect of facilities (X2) on service user satisfaction (Y) at Perum Damri in TTU Regency partially and simultaneously. The sample used in this study is a saturated sample that uses all of the population as a sample of 100 people. Data collection methods used are questionnaires, interviews, observation and documentation. The data analysis technique used is simple linear regression analysis technique and multiple linear regression. The results of simple regression analysis between the Tariff variable (X1) on Service User Satisfaction (Y) are: $Y = 5.954 + 0.600 X2 + i$. The R2 value obtained from this study is 0.533, meaning that the percentage contribution of the influence of the Tariff variable (X1) on Service User Satisfaction (Y) in this research model is very small (less than 50%). The results of the facility variable (X2) on Service User Satisfaction (Y) are: $Y = 7.288 + 0.597 X3 + i$. The R2 value obtained from this study is 0.615, meaning that the percentage contribution of the influence of the Facility variable (X2) on Service User Satisfaction (Y) in this research model is quite small (less than 50%). The results of multiple linear regression analysis of rates (X1) and facilities (X2) on service user satisfaction (Y) are: $Y = 2.152 + 0.248 (X1) + 0.362 (X2)$. The magnitude of the coefficient of determination or R2 of 0.492, it can be interpreted that 49.2% of the variation of the service user satisfaction variable at Damri in Kab. TTU can be explained by the Tariff (X1) and Facilities (X2) variables, while the rest (50.8%) is influenced by other variables outside the model.

Keywords

rates; facilities; satisfaction



I. Introduction

Transportation has now become an inseparable need in human life, because transportation is one of the tools that connects from one region to another, and transportation is one of the things that determines the development of a country, the more developed a country's transportation is, the more developed the country.

The development of transportation in North Central Timor (TTU) is quite fast. As for the transportation that has been found in North Central Timor (TTU) Regency, both private transportation and public transportation. Public transportation in TTU Regency such as city transportation, inter-provincial bus transportation, rental cars that serve the needs of the community. The demand for transportation facilities is no less important, so it is necessary to improve infrastructure to keep up with the needs of consumer demand.

Public Company Djawatan Angkoetan Motor Repoeblik Indonesia (PERUM DAMRI) is one of the companies engaged in the field of passenger transportation services using buses. Commercial activities are operational activities that are directed at obtaining profits without compromising services to the general public. PERUM DAMRI in TTU Regency is one of the branches of the company that is progressing and is also one of the public transportation modalities that are quite in demand by the people of Kab. TTU, therefore the feasibility of a bus is one of the most important assets in a company like PERUM DAMRI.

Tariff is one indicator of customer satisfaction, consumers prefer services with good quality at affordable rates. PERUM DAMRI as one of the state-owned companies in charge of facilitating the public in transportation chooses the price policy that has been regulated.

There is a difference in tariffs between the old tariffs and the new tariffs, this is because the Perum Damri company looks at the distance traveled by the vehicle and the costs incurred such as fuel, vehicle maintenance costs and others. Perum Damri as one of the SOEs (State Owned Enterprises) which is engaged in transportation transportation that serves the wider community to even very remote areas. For the safety and comfort of Damri service users, Perum Damri provides other supporting facilities to maintain the interest and satisfaction of Damri transport service users.

II. Review of Literature

The demand for public transportation which is increasingly in demand by the public is because transportation services have good facilities and services. Even at this time there is public transportation provided by the local government to facilitate community activities, such as public transportation (Damri) provided by the TTU Regency government which can be utilized by the community. Transportation at this time has become a basic need for community activities (Agussani, 2020)

Transportation services are indeed very important, related, and become part of the needs that exist in people's lives as consumers. A service is any action or performance that one party can offer to another, which is essentially intangible and does not result in the ownership of any service. Service user satisfaction is the result felt by buyers who experience the performance of a company in accordance with their expectations. This can be measured through the rates and facilities provided. Several factors that influence customer satisfaction are the timeliness of the trip to the destination, the security and comfort felt by service users. Fast service and responsiveness from employees is one form of service expected by customers.

III. Results and Discussion

3.1 Classic assumption test

a. Normality test

The normality test aims to test whether in the regression model, the confounding or residual variables have a normal distribution. In the normality test, there are two ways to detect whether the residuals are normally distributed or not, namely by graphical analysis and statistical tests. The data normality test using SPSS 23.0 processing is generated as follows:

**Table 1. Statistically Normality Test Results
One-Sample Kolmogorov-Smirnov Test**

| | | | Unstandardized Residual |
|--------------------------|----------------|--|-------------------------|
| N | | | 100 |
| Normal Parameters(a,b) | mean | | 0000000 |
| | Std. Deviation | | 2.00997363 |
| Most Extreme Differences | Absolute | | 0.105 |
| | Positive | | 0.105 |
| | negative | | -0.087 |
| Kolmogorov-Smirnov Z | | | 1.046 |
| asymp. Sig. (2-tailed) | | | 0.224 |

a. Test distribution is Normal.

b. Calculated from data.

Sourcer: data processed from SPSS 23.0, 2021

Based on the Kolmogorov-Smirnov test, it can be seen that the unstandardized residual value has an asymp.sig value. (2-tailed) 0.280 which means > 0.05 , this proves that the data is normally distributed.

b. Multicollinearity Test

For the multicollinearity test, it is necessary to obtain the true correlation, which is purely not influenced by other variables that may have an effect.

Table 2. Coefficients (a)

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|-------|-----------------------------|------------|---------------------------|-------|-------|-------------------------|-------|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | 2,152 | 1,519 | | | | |
| | Rates | 0.248 | 0.110 | 0.221 | 1,417 | ,160 | 1,817 |
| | FACILITY | 0.362 | 0.092 | 0.373 | 2,252 | 0.027 | 1,704 |
| | | | | | 3,933 | 0.000 | 0.587 |

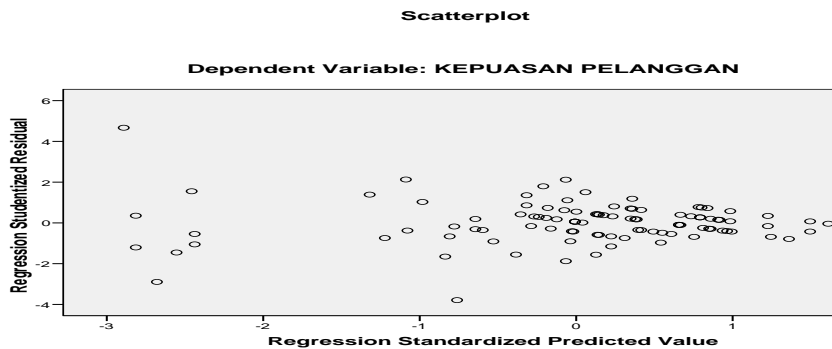
Dependent Variable: CUSTOMER SATISFACTION

Based on table 4.10 above, from the results of the Variance Inflation Factor (VIF) test on the SPSS output.23.0 coefficient table, each independent variable has a VIF of 10, namely for the tariff variable of 1.817 and for the facility variable of 1.704 and it can be concluded that there is no multicollinearity. While the value of Tolerance 0.10 is for the tariff variable 0.550 and for the facility variable 0.587. So it can be stated that the multiple linear regression model does not have multicollinearity between the dependent variable and other independent variables so that it can be used in this study.

c. Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression there is an inequality of variance from the residuals of one observation to another. Heteroscedasticity shows that the variation of variables is not the same for all observations. In heteroscedasticity, errors that occur are not random but show a systematic relationship according to the magnitude of one or more variables. The heteroscedasticity test can be

carried out in 2 steps, namely graphically and statistically, while the heteroscedasticity test is as follows:



Sourcer: Data processed on SPSS.23., 2021

Figure 1. Graphical Heteroscedasticity Test Results

d. Linearity Test

The linearity test aims to determine whether two variables have a linear relationship or not significantly. This test is usually used as a prerequisite in correlation analysis or linear regression. Testing on SPSS 22.0 using the Test for Linearity at a significance level of 0.05. Two variables are said to have a linear relationship if the significance (linearity) is less than 0.05 (Priyanto, 2013).

For clarity, it can be seen in the linearity test table below for each independent variable to the dependent variable.

Table 3. ANOVA

| | | | Sum of Squares | df | Mean Square | F | Sig. |
|-------------------------------------|----------------|--------------------------|----------------|----|-------------|--------|------|
| service user satisfaction and price | Between Groups | (Combined) | 332,321 | 13 | 25.563 | 2,702 | .003 |
| | | linearity | 256,306 | 1 | 256,306 | 27,091 | .000 |
| | | Deviation from Linearity | 76,015 | 12 | 6,335 | .670 | .776 |
| | Within Groups | | 813,639 | 86 | 9,461 | | |
| | Total | | 1145960 | 99 | | | |

Table 4. ANOVA

| | | | Sum of Squares | df | Mean Square | F | Sig. |
|--|----------------|--------------------------|----------------|----|-------------|---------|------|
| service user satisfaction & facilities | Between Groups | (Combined) | 792,920 | 13 | 60994 | 14,858 | .000 |
| | | linearity | 728,787 | 1 | 728,787 | 177,531 | .000 |
| | | Deviation from Linearity | 64,133 | 12 | 5,344 | 1,302 | .232 |
| | Within Groups | | 353,040 | 86 | 4,105 | | |
| | Total | | 1145960 | 99 | | | |

From the output above, it can be seen that the significance value for Deviation from linearity is 0.232. Because the significance is greater than 0.05, it can be concluded that there is a linear relationship between the Facility Variable (X2) and service user satisfaction (Y).

3.2 Inferential Analysis

a. Simple Linear Regression Analysis

Table 5. Simple Regression The Effect of Tariff Variables on Satisfaction of Transportation Service Users Coefficients(a)

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|-------|-------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 5,954 | 1,611 | | 3,696 | 0.000 |
| | Rates | 0.600 | 0.096 | 0.533 | 6,236 | 0.000 |

a. *Dependent Variable: CUSTOMER SATISFACTION*

Discussion of the simple regression output of the effect of Tariffs (X1) on Transportation Service User Satisfaction (Y). The simple regression processed output in the coefficients table above can be $Y = 5,954 + 0.600 X1 + i$. The meaning of this equation is: The constant value (a) is 5,954, meaning that if the Tariff variable (X1) the value is 0, then the level of Satisfaction of Transportation Service Users (Y) the value is 5.954.

The value of the regression coefficient of the Tariff variable (b) is 0.600. This means that for every 1 unit increase in Tariff (X1), the level of Transportation Service User Satisfaction (Y) also increases by 0.600.

Table 6. Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|----------|----------|-------------------|----------------------------|
| 1 | 0.533(a) | 0.284 | 0.277 | 2,399 |

a. *Predictors: (Constant), PRICE*

R in simple linear regression analysis shows a simple correlation (Pearson correlation), namely the correlation between one independent variable and the dependent variable. The R number in this study was obtained at 0.533. This means that the correlation between the Tariff variable (X1) and Transportation Service User Satisfaction (Y) is 0.533. This means that there is a strong relationship between the Tariff variable (X1) and Transportation Service User Satisfaction (Y) because the coefficient value is close to 1.00.

1. Partial Significant Test Results (t test)

Partial hypothesis testing is intended to determine whether or not there is a partial influence of the independent variable on the dependent variable. The results of the hypothesis in this test are as follows:

Table 7. Partial Significant Test Results (t Test)
Coefficients (a)

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|-----------|------|
| | | B | Std. Error | Beta | Tolerance | VIF |
| 1 | (Constant) | 2,152 | 1,519 | | 1,417 | ,160 |
| | Rates | ,248 | ,110 | ,221 | 2,252 | ,027 |
| | FACILITY | ,362 | ,092 | ,373 | 3,933 | ,000 |

a. Dependent Variable: CUSTOMER SATISFACTION
Sourcer: Data Processed from SPSS 23.0, 2021

2. Analysis of the Effect of Facilities (X2) on Satisfaction of Transportation Service Users (Y) at Perum Damri Angkutan Kab. TTU

Table 8. Simple Regression The Effect of Facility Variables on Transportation Service User Satisfaction
Coefficients (a)

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|-------|------|
| | | B | Std. Error | Beta | | |
| | (Constant) | 7,288 | 1,135 | | 6,420 | ,000 |
| | FACILITY | 0.597 | 0.077 | 0.615 | 7,729 | ,000 |

a. Dependent Variable: CUSTOMER SATISFACTION

Discussion of the simple regression output of the effect of facilities (X2) on the satisfaction of users of transportation services (Y). The simple regression processed output in the coefficients table above can be $Y = 7.288 + 0.597 X_3 + i$. The meaning of this equation is: The value of the constant (a) is 7.288, meaning that if the Facility variable (X2) the value is 0, then the level of Satisfaction of Transportation Service Users (Y) the value is 7.288. The regression coefficient value for the Facility variable (b) is 0.597. This means that for every 1 unit increase in Facility (X3), the level of Transportation Service User Satisfaction (Y) also increases by 0.597.

Table 9. Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|----------|----------|-------------------|----------------------------|
| 1 | 0.615(a) | 0.379 | 0.372 | 2,235 |

a. Predictors: (Constant), FACILITY

R in simple linear regression analysis shows a simple correlation (Pearson correlation), namely the correlation between one independent variable and the dependent variable. The R number in this study was obtained at 0.615. This means that the correlation between the Facility variable (X2) and Transportation Service User Satisfaction (Y) is 0.615. This means that there is a strong relationship between the Facility variable (X2) and Transportation Service User Satisfaction (Y) because the coefficient value is close to 1.00.

3. Partial Significant Test Results (t test)

Partial hypothesis testing is intended to determine whether or not there is a partial influence of the independent variable on the dependent variable. The results of the hypothesis in this test are as follows:

Table 10. Partial Significant Test Results (t Test)
Coefficients (a)

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|-----------|------|
| | | B | Std. Error | Beta | Tolerance | VIF |
| 1 | (Constant) | 2,152 | 1,519 | | 1,417 | ,160 |
| | Rates | ,248 | ,110 | ,221 | 2,252 | ,027 |
| | FACILITY | ,362 | ,092 | ,373 | 3,933 | ,000 |

a. Dependent Variable: CUSTOMER SATISFACTION

Sourcer: Data Processed from SPSS 23.0, 2021

b. Multiple Linear Regression Analysis Results

Table 11. Multiple Linear Regression Analysis Results
Coefficients (a)

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|-----------|-------|
| | | B | Std. Error | Beta | Tolerance | VIF |
| 1 | (Constant) | 2,152 | 1,519 | | 1,417 | 0.160 |
| | Rates | 0.248 | ,110 | 0.221 | 2,252 | 0.027 |
| | FACILITY | 0.362 | ,092 | 0.373 | 3,933 | 0.000 |

a. Dependent Variable: CUSTOMER SATISFACTION

Source: Data Processed from SPSS 23.0, 2021

Based on the results obtained from the regression coefficients above, a regression equation can be made as follows:

$$Y = 0.221X_1 + 0.373X_2$$

1. Coefficient of Determination Results (R²)

Table 12. Coefficient of Determination Results (Adjusted R²)
Model Summary (b)

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|---------|----------|-------------------|----------------------------|
| 1 | ,702(a) | ,492 | ,476 | 2.041 |

a. Predictors: (Constant), FACILITIES, RATES

b. Dependent Variable: CUSTOMER SATISFACTION

Sourcer: data processed from SPSS 23.0, 2021

It can be seen that the adjusted coefficient of determination or (R²) is 0.492. These results mean that the independent variables, service quality, tariffs and facilities can only explain 49.2% of the dependent variable, namely customer satisfaction, while the remaining 50.8% is explained by other variables not included in this model.

2. Simultaneous Significant Test Results (Test F)

Table 13. Simultaneous Significant Test Results (Test F)
ANOVA (b)

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|--------|---------|
| 1 | Regression | 387,831 | 2 | 129,277 | 31,030 | ,000(a) |
| | Residual | 399,959 | 97 | 4,166 | | |
| | Total | 787,790 | 99 | | | |

a. Predictors: (Constant), FACILITIES, RATES

b. Dependent Variable: CUSTOMER SATISFACTION

Sourcer: data processed from SPSS 23.0, 2021

In the following, the stages of the F test are presented to determine how the simultaneous influence of tariff variables (X1), Facilities (X2) on Service User Satisfaction (Y) at Perum Damri.

a) Hypothesis Formula

Ho: The calculated F value $>$ F table ($31,030 > 2,700$) then Ho can be rejected

Ha: The calculated F value $>$ F table ($31,030 > 2,700$) then Ha can be rejected

b) Determine the calculated F value

From the ANOVA table, it is known that the calculated F is 31.030.

c) Determine the table F value

F table can be seen in the statistical table that at a significance level of 0.05 with df (number of variables) = 2 or $99 - 2 = 97$ (n is the number of samples, K is the number of independent variables), the results obtained for the F table are 2,700.

d) Testing Criteria

If F count $<$ F table then Ho is accepted.

If F count $>$ F table then Ho is rejected.

e) Conclusion

The calculated F value $>$ F table ($31,030 > 2,700$) then Ho can be rejected. So it can be concluded that Tariff (X1), Facilities (X2) have a significant effect on Service User Satisfaction (Y) at Perum Damri.

f) Decision making based on significance

Based on the significance, if the significance is $<$ 0.05 then Ho is rejected, and if the significance is $>$ 0.05 ($0.000 < 0.05$) then Ho is rejected. This means that tariffs (X1), facilities (X2) have a significant positive effect on service user satisfaction (Y) at Perum Damri.

IV. Conclusion

Based on the data obtained and the tests that have been carried out on the problem, the following conclusions can be drawn:

- Based on the t statistical test coefficient table, the calculated t value for the tariff variable (X1) is 3.933 while the t table is 1.984. Then it can be seen that t count $>$ t table, and the significant value is less than 0.05. So it can be concluded that the tariff has a significant effect on customer satisfaction on Damri transportation.
- Based on the table of statistical test coefficients t, the calculated t value for the facility variable (X2) is 3.933 while the t table is 1.984. Then it can be seen that t count $>$ t table, and the significant value is less than 0.05. So it can be concluded that the facility has a significant effect on customer satisfaction on Damri transportation.

- c. Based on the results of the F test, the value obtained is 31.030 while the F table value is 2.700, it can be seen that the calculated F value is $31.030 > F \text{ table } 2.700$ with a significant level of 0.000 less than 0.05. So it can be concluded that the rates and facilities simultaneously or together have a significant influence on the satisfaction of Damri service users.

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