The Effect of Driver Service Quality on Passenger Satisfaction in Public Transportation

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Abstract

Transportation has become the main means in human life to facilitate daily activities. One of the unique land Transportation’s mode is public transportation as transportation in a large area. Generally, the management of public transportation is carried out by the private sector but does not make public transportation provide better service. The complaints that often occur in this mode are the tendency that people do not obey traffic rules, passenger capacity that is not following what they should, pickpockets and others. The objective of this paper to prove the effect of driver service on the level of passenger satisfaction. This research used a quantitative method with a survey strategy. The research population is Passenger of public transportation in route Mandailing Natal to Panyabungan Selatan. The sample was selected with the Proportionate Stratified Random Sampling technique. The measurement of the sample is 295 respondents. The sample was certain with the Slovin formula in a 5% standard of error. Then, data was collected with a questionnaire instrument that has been tested for validity and reliability. Data were analyzed with regression in t-test and F test. This research was found that service quality by the driver has a direct effect on passenger satisfaction in partial and simultaneous.

Keywords: service quality, passenger satisfaction, public transportation

Introduction

Transportation is the equipment to move from one location to another location. Transportation was becoming a need in their lives and must be filled. There are seven characteristics of transportation that can be the name of public transportation. First, there are the name and license plate numbers in the side right, side left and rear of the vehicle. Second, in the rear and front of the vehicle have available its route. Third, the Route of the vehicle must be written with clarity and block letter in the right and left of the vehicle body. Fourth, the Identity of the driver must have adhered to in the dashboard. Fifth, available baggage facilities and the last, adhere list your rates (Frinaldi, 2017). At this moment, transportation available in conventional and online. Malaysia one of the country was prepared to service online for transportation. All of the public transportation comply with the character of public transportation. This Development proves that governance was implemented electronic governance which emphasizes service quality to the public. Indeed, when disaster has occurred, transportation becomes important (Gusfi & Frinaldi, 2018).

Regions in Indonesia already have many modes of transportation that can be used for daily activities. transportation is also important because it can improve the economy of the community, especially by public transportation. Increased use of transportation in an area will have an impact on improving the public economy. For example, coastal areas are often the areas with the low economy. The coastal area
is an area that can be used as a tourist attraction. If the coastal area has public transportation, the economy there can be improved (Maani, Frinaldi, & Fajri, 2018).

The most commonly used mode of transportation is land transportation, which is managed by the private sector. However, the mode of transportation that is often used in the coastal area is urban transportation. Urban transportation is transportation that moves people from one place to another within an urban area (Law No. 14 of 1992). The development of transportation modes in Indonesia is very rapid. This is to create reliable and affordable services for the public. However, service by the private sector does not promise service will be better. The party requires fulfillment of the rental fee every day. Because of this reason, the driver often ignores the pleasure and safety of the passenger. Furthermore, urban transportation that is operational often violates traffic rules, like sudden stop and inconsiderate. This condition is exacerbated by charging the number of passengers that exceeds capacity, criminal cases such as pickpocketing and even sexual harassment.

Urban transportation is a service provider facility by the driver. Good or bad a service is a public evaluation of the service received when using public transport service. It is namely service quality. The attitude and behavior of urban transport drivers reflect the work culture of them. The driver’s work culture is a reflection of values that are believed to be consciously or unconsciously and become a habit including in providing services to passengers and stakeholders in their work. The service provided by the driver is his integrity in providing services to passengers. The good quality provided will give satisfaction to the people for the services they receive. So, directly and indirectly, the culture will affect the quality and satisfaction of passengers that correlate with the prospects of future service providers (Frinaldi, 2014).

Service quality is the result of a comparison between customer expectations before and after getting service. Expectations that are following the perception will provide an opinion on service (Ismail, 2016). The service quality measurement model that is widely used is the service quality (Servqual) model (Parasuraman, Zeithalm, & Berry, 1988). This theory identifies gaps that occur during service expectations to service delivery. Based on this, five gaps often occur between service expectations to service delivery. First, the ignorance of the service provider to the expectations of its customers. Second, service providers do not know the service standards expected by customers. Third, service specifications and service delivery. Fourth, the gap to service delivery and finally the gap between customer expectations about service as a whole and perceived service (Rahman, Khan, & Haque, 2012). The service quality measurement by Parasuraman et al has five dimensions, namely reliability, responsiveness, assurance, empathy, and tangibility. Service quality is rated by the service recipient because expectations just have by the customer, so the quality will be more concrete if measured by the service recipient. Besides, customers also have a different level of service quality. This will have an impact on customer satisfaction (Dabholkar, Shepherd, & Thorpe, 2000).

Customer satisfaction is a form of color receiver’s reaction to the expectations and reality received in service (Hansemark & Albinsson, 2004). The government already has an index for measuring public satisfaction that is in the Regulation of the Minister of Empowerment of the State Apparatus Number 14 of 2017 concerning Guidelines for the Preparation of a Survey of Public Satisfaction. Nine elements can be used to measure satisfaction, namely requirements, systems, mechanisms and procedures, completion time, costs/tariffs, product specification type services, implementing competencies, implementing behavior, facilities and infrastructure. The importance of service quality rate toward customer satisfaction aims to improve service quality by the driver. Thus, drivers can improve less satisfactory services, so that the use of urban transportation becomes the main thing for the public. The Pleasure of passengers toward driver service will increase the number of passengers using urban transportation, so the use of private vehicles can decrease, and the public’s economy can increase.
Method

This research used quantitative methods with a survey strategy. The locus of research is transportation in Mandailing Natal Regency, North Sumatra. The research population was all urban transport passengers on route Penyabungan Kota to Penyabungan Selatan. The research population was 1109 passengers for 1 month. The sample of this research was determined using the Proportionate Stratified Random Sampling technique. the total sample was determined using the Slovin formula with a standard error of 5%, so the total sample of the study was 295 respondents. Data were collected with a questionnaire that has been tested for validity and reliability. Collected data were analyzed by t-test and F test. Analysis of data used SPSS application 20.0 version. There are five variables as an independent variable or X variable and one variable as the dependent variable or Y variable. The X variables are reliability as X1, empathy as X2, assurance as X3, responsiveness as X4 and tangible as X5. While the dependent variable or Y variable is passenger satisfaction.

Results and Discussion

In the data analysis with multiple regression, there is a classic assumption test that must be fulfilled, namely the normality test, linearity test, multicollinearity test, and heteroscedasticity test. The result of Normality test seen in the table below,

| Table 1. Normality test |
|-------------------------|
| One-Sample Kolmogorov-Śmírnov Test |
| N | 295 |
| Normal Parametersab | Mean | 0E-7 |
| | Std. Deviation | 3.24225377 |
| Most Extreme Differences | Absolute | .051 |
| | Positive | .051 |
| | Negative | -.020 |
| Kolmogorov-Śmírnov Z | .883 |
| Asymp. Sig. (2-tailed) | .416 |

Based on the table above, the normality test used One-sample Kolmogorov-Śmírnov Test, found that the significance was 0.416. The number is greater than 0.05. Therefore it can be stated that the collected data has normally distributed data.

The next classic assumption test is the linearity test. Linearity test results of reliability (X1) toward passenger satisfaction (Y) in table 2 states that there is a significant linear relationship between both variables. This can be seen from the significance value of 0.332 which is greater than 0.05. Then, the linearity test results of empathy (X2) toward passenger satisfaction (Y) in table 3 states that there is a significant linear relationship between both variables. This can be seen from the significance value of 0.458 which is greater than 0.05. Linearity test results of assurance (X3) toward passenger satisfaction (Y) in table 4 states that there is a significant linear relationship between both variables. This can be seen from the significance value of 0.775 which is greater than 0.05.
The results of the linearity test of responsiveness (X4) toward the passenger satisfaction (Y) in table 4 states that there is a significant linear relationship between both variables. This can be seen from the significance value of 0.726 which is greater than 0.05. Linearity test results of tangible (X) toward passenger satisfaction (Y) in table 4 states that there is a significant linear relationship between both variables. This can be seen from the significance value of 0.240 which is greater than 0.05.
Table 5. Linearity test of $X_4$ toward $Y$

| ANOVA Table | Sum of Squares | df | Mean Square | F   | Sig. |
|-------------|----------------|----|-------------|-----|------|
| Between Groups | (Combined) | 133.065 | 8 | 16.633 | 1.465 | .170 |
| | Linearity | 82.486 | 1 | 82.486 | 7.263 | .007 |
| | Deviation from Linearity | 50.579 | 7 | 7.226 | .636 | .726 |
| Within Groups | 3248.236 | 286 | 11.357 |
| Total | 3381.302 | 294 |

Table 6. Linearity test of $X_5$ toward $Y$

| ANOVA Table | Sum of Squares | df | Mean Square | F   | Sig. |
|-------------|----------------|----|-------------|-----|------|
| Between Groups | (Combined) | 132.165 | 9 | 14.685 | 1.288 | .243 |
| | Linearity | 12.969 | 1 | 12.969 | 1.138 | .287 |
| | Deviation from Linearity | 119.196 | 8 | 14.899 | 1.307 | .240 |
| Within Groups | 3249.137 | 285 | 11.400 |
| Total | 3381.302 | 294 |

The next classic assumption test is the multicollinearity test. To test data using multiple regression, then the data must not occur multicollinearity between research variables. The multicollinearity test from the research data can be seen as follows:

Table 7. Multicollinearity test

| Model | Unstandardized Coefficients | Standardized Coefficients | Collinearity Statistics |
|-------|------------------------------|----------------------------|-------------------------|
|       | B    | Std. Error | Beta | Tolerance | VIF |
| 1     |      |            |      |           |    |
| (Constant) | 27.703 | 2.085 |      |           |    |
| Reliability | -.445 | .177 | -.150 | .878 | 1.139 |
| empathy | -.334 | .169 | -.117 | .906 | 1.104 |
| assurance | -.387 | .176 | -.128 | .938 | 1.066 |
| responsiveness | .479 | .143 | .193 | .950 | 1.052 |
| tangible | .243 | .120 | .120 | .909 | 1.100 |

Based on the data in the table above, all independent variables have a VIF value below 10. This states that there is no multicollinearity.

The next classic assumption test is the heteroscedasticity test. Heteroscedasticity test is a test which states that there is no heteroscedasticity problem, with the characteristic of data distribution above and below zero. This can be seen in the figure below:
Based on the figure above, the test is fulfilled for data analysis with multiple regression. fulfill the requirements of the classic assumption test, then the next step is to do a multiple regression test. for testing it can be seen in the table below:

Table 8. T-Test

| Model      | Unstandardized Coefficients | Standardized Coefficients | t    | Sig. |
|------------|-----------------------------|---------------------------|------|------|
|            | B          | Std. Error | Beta |      |      |
| (Constant) | 27.703     | 2.085      |      | 13.285 | .000 |
| Reliability | -.445      | .177       | -.150 | -2.507 | .013 |
| Empathy    | -.384      | .169       | -.117 | -1.983 | .048 |
| Assurance  | -.387      | .176       | -.128 | -2.206 | .028 |
| Responsiveness | .479    | .143       | .193  | 3.345  | .001 |
| Tangible   | .243       | .120       | .120  | 2.029  | .043 |

Based on the results of the partial analysis, each variable has a significant relationship. This can be seen from the significance of each variable which is smaller than 0.05. The reliability variable has a significance of 0.013 which states that part there is an influence of the reliability variable on satisfaction. This states that the influence of the variables X1 and Y can be trusted by 98.7%. The empathy variable has a significance of 0.048 which states that there is a partial influence of the empathy variable on passenger satisfaction. This states that the influence of the variables X2 and Y can be trusted by 95.2%. The assurance variable has an influence on passenger satisfaction with a significance of 0.028. This states that the influence of X3 influences Y and the truth is 97.2%. The responsiveness variable has an influence on passenger satisfaction with a significance of 0.001. This states that the influence of X4 on Y can be
trusted by 99.9%. Tangible variables also have an effect on passenger satisfaction with a significance of 0.043. This states that there is an influence of X3 on Y which can be trusted by 95.7%. The amount of contribution of each variable X partially to the variable Y is as follows:

| Table 9. The Effect X1 variable toward Y Variable |
|-----------------------------------------------|
| Model Summary                                  |
| Model  | R       | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1      | .148*   | .022     | .019              | 3.360                       |
| a. Predictors: (Constant), Reliability        |

Based on the table above, the value of R Square for the results of the t-test X1 toward Y is 0.022. This states that the variable X1 gives an effect of 2.2%. For the amount of contribution X2 towards Y, can be seen in the following table:

| Table 10. The Effect X2 variable toward Y Variable |
|-----------------------------------------------|
| Model Summary                                  |
| Model  | R       | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1      | .123+   | .015     | .012              | 3.371                       |
| a. Predictors: (Constant), empathy             |

Based on the table above, it can be stated that R Square has a value of 0.015. This states that the contribution of X2 toward Y is 1.5%. For the amount of X3 against Y is as follows:

| Table 11. The Effect X3 variable toward Y Variable |
|-----------------------------------------------|
| Model Summary                                  |
| Model  | R       | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1      | .092+   | .009     | .005              | 3.383                       |
| a. Predictors: (Constant), assurance           |

Based on the table above, it can be stated that R Square has a value of 0.009. this states that the amount of contribution X3 towards Y is 0.9%. For the amount of contribution X4 towards Y are as follows:

| Table 12. The Effect X4 variable toward Y Variable |
|-----------------------------------------------|
| Model Summary                                  |
| Model  | R       | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1      | .156+   | .024     | .021              | 3.355                       |
| a. Predictors: (Constant), responsiveness       |

Based on the table above, the R Square value above is 0.024. this states that the contribution of variable X4 toward Y was 2.4%. The contribution of X5 toward Y in this study are as follows:

| Table 13. The Effect X5 variable toward Y Variable |
|-----------------------------------------------|
| Model Summary                                  |
| Model  | R       | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1      | .062+   | .004     | .000              | 3.391                       |
| a. Predictors: (Constant), tangible             |
Based on the table above, it can be seen that R Square has a value of 0.004. This states that the contribution of X5 to Y was 0.4%. Based on the table above, it can be stated that all variables have a partial contribution to passenger satisfaction.

Analysis of the data using the F test in this study states that there are simultaneous influences by variables X1, X2, X3, X4 and X5 toward Y. This can be seen as follows,

| Model       | Sum of Squares | Df | Mean Square | F     | Sig. |
|-------------|----------------|----|-------------|-------|------|
| Regression  | 290.712        | 5  | 58.142      | 5.437 | .000 |
| Residual    | 3090.590       | 289| 10.694      |       |      |
| Total       | 3381.302       | 294|             |       |      |

Based on the above table, it can be seen that simultaneously there is an influence of X1, X2, X3, X4, and X5 towards passenger satisfaction with a significance of 0.00. This states that the results of research that states the influence of independent variables on dependent variables simultaneously can be trusted 100%. The influence of independent variables toward the dependent variable can be seen simultaneously in the table below,

| Model Summary | R       | R Square | Adjusted R Square | Std. Error of the Estimate |
|---------------|---------|----------|-------------------|---------------------------|
| 1             | .293+   | .086     | .070              | 3.270                     |

Based on the table above, the value of R square can be seen at 0.86. This states that simultaneously the influence of variables X1, X2, X3, X4 and X5 toward Y is 8.6%. While 91.4% is influenced by variables not examined in this study.

Based on the results of the research above, it was found that the quality of driver service influences passenger satisfaction (Alqeed, 2013). The effect of service quality on satisfaction is positive. It means that if the quality of service provided by the driver is good, it will give good passenger satisfaction. If the quality of service is bad, then customer satisfaction will also be bad. Measurement of service quality always correlates with customer satisfaction, because customer satisfaction was created by providing quality service (Brady & Cronin, 2001; Lanin & Bila, 2017). Satisfaction is the main key for business success because satisfaction determines the growth in the use of urban transportation services (Iberahim, Mohd Taufik, Mohd Adzmir, & Saharuddin, 2016). For a measure of service quality provided by drivers, this research uses an instrument called SERVQUAL. Based on the research findings, if seen partially, the one that has the greatest influence on passenger quality is responsiveness with a confidence level of 99.9%. The contribution made by responsiveness to satisfaction was 2.4%. Simultaneously found that the variables used in measuring the quality of driver service on customer satisfaction have an influence. But the effect of driver service quality on satisfaction is only 8.6%. This means that there are still many other variables not examined that can influence passenger satisfaction.
There are five dimensions of driver service quality that must be improved to achieve good passenger satisfaction. Drivers must provide services without errors and are always on time. If this is not present, it will increase stress and reduce passenger satisfaction. Besides, reliability in quality is also related to the attitude of the driver when going and during service delivery (Latiff & Imam, 2015). Then, the most important quality for attention by drivers is to understand passenger problems, give attention to passenger and have comfortable operating hours. This is very important because it relates to the experience of service satisfaction that has been obtained. Its called a symbiosis (Wieseke, Geigenmuller, & Kraus, 2012). In the service, there is assurance related to the behavior of the driver to grow trust and create a sense of security for passengers. Assurance will exist if the driver has good skills in providing services to the passenger, polite to passengers, and able to provide comfort to passengers. This will give satisfaction to the passengers (Hussain, Al Nasser, & Hussain, 2014).

Responsiveness is related to the willingness and ability of the driver to help passengers and also respond to passenger requests. Responsiveness is something vital in an organization because it will give effect to passenger satisfaction and passenger loyalty (Chou, Lu, & Chang, 2014). Responsiveness includes the time spent delivering services (Melia, 2016). Furthermore, the thing that always becomes the main assessment in service quality is tangible. Passengers always make tangible something interesting from the quality of service. The response of the passenger argument about tangible becomes a conclusion that will have a significant impact on the passenger perspective and continues on passenger satisfaction (Alqeed, 2013).

Conclusions

The results of this study can be concluded that simultaneous and partial service quality contributes directly to the satisfaction of urban transport passengers. To improve quality, a variety of collaborations are needed in collaboration with stakeholders, so service quality by drivers can fulfill passenger’s needs. However, service quality with the five indicators used in this study cannot be used as a permanent measurement, because there are still many variables outside the research variables that affect urban transportation.

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