The Customer Loyalty of Patas Purwakarta Train Service Users

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ABSTRACT

The aim of this research is to find out the influence of service quality, ticket price, and customer satisfaction to the customer loyalty. It is a quantitative research using the data analysis method of Path Analysis. The results indicate that both variables of Service Quality (X1) and Ticket Price (X2) have a significant direct influence to the variable of Customer Satisfaction (Y1), whereas the variable of customer satisfaction has a significant indirect influence to the variable of Customer Loyalty (Y2) [through intervening the variable of customer satisfaction]. It is found in a sequence that the variables most influential to the increase of Customer Loyalty are: Service Quality, Customer Satisfaction, and the Ticket Price in the last rank. The results of path analysis indicate that service quality can directly influence the customer loyalty. It can be optimistically improved as maximal as possible through 5 factors having positive influences in enhancing customer loyalty. Meanwhile, Ticket Price still indirectly influences the customer loyalty and it can pesimistically still be enhanced through the policy on tariff and it is difficult to implement, only can be driven if the ticket price provided by the transport service provider is more competitive and more various as well as affordable for the consumer purchase power of that transport sevice.

Key words : Service Quality, Ticket Price, Customer Satisfaction, Customer Loyalty

INTRODUCTION

Local Economy-Class Train of Purwakarta, frequently called Patas Purwakarta or abbreviated as Patas PWK, has been operating since 1971. Patas PWK is an economy class train serving the route of Purwakarta-Jakarta Kota round trip and one of the favorite commuter lines in Jabodetabek area. People often call it as odong-odong.

The service provided by this Patas train over four decades has been miserable. All passenger coaches are always fully loaded. Passengers sit and stand in crowds. Passengers' luggage contributes to narrowing the coach space. Moreover, hundreds of passengers of such an odong-odong train occupy all the coach roofs for sitting, as well as tens of passengers hanging on the right and left sides of the Locomotive. It is because this train is for people in middle-low class with very low tariff.

The poor operation management of Patas Purwakarta train has made prospective passengers get on the train without buying ticket in prior. Such a condition is a "model mental" or social disease which is difficult to be eradicated. The cause is that almost all stations for the route of Purwakarta-Jakarta Kota round trip are not fenced, and the entrance/exit gate is not supervised byb the station officers. Only three stations of middle class category, i.e. Cikampek, Bekasi, and Jatinegara have been fenced and supervised by the officers.

Based on the information from the station officers along the route of Purwakarta-Jakarta Kota round trip, only 20% out of all the passengers hold their tickets. It can be imagined the gloomy age of PT KAI by suffering from loss in a fairly long time, so it is not surprising that PT KAI, especially the Local Economy-Class Train of Purwakarta or such an odong-odong, has been subsidied every year. In addition, many issues have spreaded that not only the Local Economy-Class Train of Purwakarta or such an odong-odong suffer from loss, but almost all economy class trains like KRL and KRD. Even the government intentionally subsidies the economy class trains of Surabaya Pasar Turi, Surabaya Gubeng and others in order to keep the economy run smoothly.

The Management of PT Kereta Api Indonesia (PT KAI) should try to optimize the improvement of service quality to its consumers or passengers because it has a positive impact on the consumer (customer) loyalty. Measuring the level of customer loyalty in the quality service dimension, according to Parasuraman (1985: 41-50 and 1988: 12-40) and marketing experts (Zeithaml, Valarie A., A Parasuraman, Berry, Leonard L., 1990: 67) can be done through 5 factors: Tangible, Reliability, Responsiveness, Assurance and Empathy. The five dimensions of service quality are often used by researchers (a multidimensional definition/understanding). In this study, the five dimensions of service quality are independent variables which, according

to Richa Widyaningtyas (2010: 49), can represent 13 indicators of Independent Variable (X1) or as research indicators which determine whether the services delivered by PT KAI, especially Patas Purwakarta Train, have been optimal or not.

According to Febri Tri Bramasta Putra (2010: 15), independent variable is a measure of how good the delivered service can fulfill or match to the consumer expectation. Based on this statement, if Patas Purwakarta Train want to satisfy its consumers, thus the service delivered to consumers should be the same as or exceed their expectation in order to satisfy them, and the control over this excellence is to fulfill the customers' want (Philip Kotler, 2002: 83). Whereas Fandy Tjiptono (2007) states that Independent variable is an effort to satisfy consumers' needs and wants as well as its punctual delivery in response of their expectation.

Today, high independent variable is considered as a tool for transportation service company like Patas Purwakarta Train to have competitive advantages over the competitors. The benefit of good independent variable among others are passengers loyalty, new prospective passengers attraction, commitment and satisfaction of all employees, improved image of Patas Purwakarta Train in the people's eyes. These are intended to make people feel comfortable with the facilities and service provided and feel astonished with the transportation service performance of Patas Purwakarta Train.

Consumer satisfaction will be achieved if the quality of product or service provided by a company matches to the consumer want, since service quality much depends on who provides and how it is delivered. Customer satisfaction is a key success of a company; when the consumers are satisfied, they will be loyal. Customer loyalty is obtained through a combination of satisfaction and complaints. The higher the independent variable, the higher the customer satisfaction level will be. This is in accordance with Rambat Lupiyoadi and Hamdani, A (2001: 98) stating that one of the main factors the company should pay attention in improving customer satisfaction is the independent variable.

Moreover, price also determines customer satisfaction in the service use because the tariff established is related to the passengers income. The higher tariff will make passengers think twice to use the transportation service. In contrast, the lower tariff make the passengers tend to use the transportation service without many considerations. This is also in accordance with the statement of Rambat Lupiyoadi and Hamdani, A., (2006: 195) that price is one of the factors influencing customer satisfaction. Therefeore, it is interesting to study customer loyalty in the train service, especially Patas Purwakarta Train.

Fluctuation in the number of passengers that tends to decline and complaints that indicate negative gaps between independent variable (X1) given by the transportation service provider and the independent variable perceived

by the passengers have caused a negative controversy among people so that both the customer satisfaction (Y1) and the customer loyalty (Y2) of Patas Purwakarta Train are not achieved. Based on the background that has been described, the authors are interested in studying or choosing the title Customer loyalty of Patas Purwakarta Train Service.

The research is carried out using a "survey method" through fulfilling questionnaires; the researchers (authors) directly accompany each of 125 respondents to be surveyed one by one. The object of the research is the regular passengers or customer who use the service of Patas Purwakarta Train more than twice, thus not all the population has the same probability to be the sample.

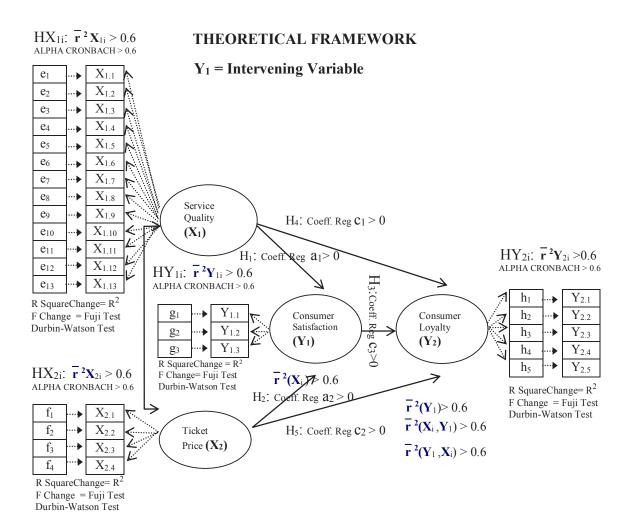In order to know the influence among variables it can be explained through the following framework:

THEORETICAL FRAMEWORK

Y_1 = Intervening Variable

Figure 1 : Conceptual Model & Functional Relationship: Among Independent variable (X_1), Ticket price (X_2), Consumer satisfaction (Y_1), and Consumer Loyalty (Y_2). Estimated Results (Multiple Regression) to determine whether the function is *Normally Distributed*.

Regression Model I :

$$Y_1 = a_0 + a_1 X_1 + a_2 X_2 + e_1$$

$$Y_2 = b_0 + b_1 Y_1 C_{alc} + e_2$$

$$Y_{2\,Calc} = c_0 + c_1 X_1 + c_2 X_2 + c_3 Y_1 + e_3$$

$$Y_{2\,Calc} = d_0 + d_1 X_1 + d_2 X_2 + d_3 Y_1 + e_4$$

Regression Model II:

$$\begin{aligned}X_1 = {}& e_0 + e_1 X_{1.1} + e_2 X_{1.2} + e_3 X_{1.3} + \\ & e_4 X_{1.4} + e_5 X_{1.5} + e_6 X_{1.6} + \\ & e_7 X_{1.7} + e_8 X_{1.8} + e_9 X_{1.9} + \\ & e_{10} X_{1.10} + e_{11} X_{1.11} + e_{12} X_{1.12} + \\ & e_{13} X_{1.13} + e_5\end{aligned}$$

$$X_2 = f_0 + f_1 X_{2.1} + f_2 X_{2.2} + f_3 X_{2.3} + f_4 X_{2.4} + e_6$$

$$Y_1 = g_0 + g_1 Y_{1.1} + g_2 Y_{1.2} + g_3 Y_{1.3} + e_7$$

$$Y_2 = h_0 + h_1 Y_{2.1} + h_2 Y_{2.2} + h_3 Y_{2.3} + h_4 Y_{2.4} + h_5 Y_{2.5} + e_8$$

Path Analysis Method

Standardized Coefficients:

$$Y_1 = \rho_1 X_1 + \rho_2 X_2 + \varepsilon_9$$

$$Y_2 = \rho_1 X_1 + \rho_2 X_2 + \sigma_1 Y_1 + \varepsilon_{10}$$

Dimensional Variable (Relationship between Variable and Dimension)

The relationship among Independent variable (X1), 5 Main Dimensions (Total) of Independent variable (X1u.i) and 5 Dimensions of Averaged Independent variable (X2v.i) and the relationship both Variable and Dimension of Average in Path Analysis Method can be explained as follows:

$HX_1: \bar{r}\,^2 X_1 > 0$:
  Independent variable (X_1)

$HX_{3v}: \bar{r}\,^2 X_{3v} > 0$:
  Dimension of Averaged Independent variable (X_{3v})

$HX_{1u.i}: \bar{r}\,^2 X_{1u.i} > 0$:
  5 Main Dimensions (Total) of Independent variable $(X_{1u.i})$

$H_1: HX_{1u.1}$ = Tangible is the function of Independent variable Indicator ($X_{1.1}$ to $X_{1.4}$)

$H_2: HX_{1u.2}$ = Reliability is the function of Independent variable Indicator ($X_{1.5}$ to $X_{1.7}$)

$H_3: HX_{1u.3}$ = Responsiveness is the function of Independent variable Indicator ($X_{1.8}$ to $X_{1.9}$)

$H_4: HX_{1u.4}$ = Assurance is the function of Independent variable Indicator ($X_{1.10}$ to $X_{1.11}$)

$H_5: HX_{1u.5}$ = Empathy is the function of Independent variable Indicator ($X_{1.12}$ to $X_{1.13}$)

$HX_{1v.i}: \bar{r}^2 X_{1v.i} > 0$

5 Dimensions of Averaged Independent variable (X1v):

$H_1: HX_{1v.1}$ = Tangible positively influences the variable of consumer satisfaction.

$H_2: HX_{1v.2}$ = Reliability positively influences the variable of consumer satisfaction.

$H_3: HX_{1v.3}$ = Responsiveness positively influences the variable of consumer satisfaction.

$H_4: HX_{1v.4}$ = Assurance positively influences the variable of consumer satisfaction.

$H_5: HX_{1v.5}$ = Empathy positively influences the variable of consumer satisfaction.

$HX_2: \bar{r}^2 X_2 > 0$:

Variable of Ticket price (X_2)

$HX_{4v}: \bar{r}^2 X_{4v} > 0$:

Dimension of Averaged Ticket price (X_{4v})

$HX_{4v.i}: \bar{r}^2 X_{4v.i} > 0$:

3 Dimensions of Averaged Ticket price ($X_{4v.i}$) :

(1) Conformity of price with the service quality delivered

(2) Conformity of price with the service experienced

(3) Conformity of price with the facilities

$HY_1: \bar{r}^2 Y_1 > 0$:

Variable of Consumer satisfaction (Y_{-1})

$HY_{3v}: r^2 Y_{3v} > 0$:

Dimension of Consumer satisfaction (Y_{3v})

$HY_{3v.i}: r^2 Y_{3v.i} > 0$:

3 Dimensions of Consumer satisfaction ($Y_{3v.i}$) :

(1) The service conforms the customer expectation,

(2) Customer's willingness to recommend to others, and

(3) Satisfaction on the independent variable experienced.

$HY_2: r^2 Y_2 > 0$:

Variable of Consumer satisfaction (Y_2)

$HY_{4v}: r^2 Y_{4v} > 0$:

Dimension of Consumer satisfaction (Y_{4v})

$HY_{4v.i}: r^2 Y_{4v.i} > 0$:

3 Dimensions of Consumer satisfaction ($Y_{4v.i}$) :

(1) Service reuse

(2) The service is positively internalized in customer's mind

(3) Always become the customer's main choice.

Path Analysis Method

Standardized Coefficients:

$$Y_1 = \rho_1 X_1 + \rho_2 X_2 + \varepsilon_9$$

$$Y_2 = \rho_1 X_1 + \rho_2 X_2 + \sigma_1 Y_1 + \varepsilon_{10}$$

where:

Y_1 = Customer satisfaction

Y_2 = Customer loyalty

ρ_1 = Coefficient of Independent variable

ρ_2 = Coefficient of Ticket Price variable

σ_1 = Coefficient of the variable intervening Customer satisfaction

ε = Error Term

X_1 = Independent variable

X_2 = Ticket price

Multi-Linear Regression Analysis

The analysis used to measure the strength of relationship between two or more variables also indicates the direction of the relationship between dependent variable and independent variable (Imam Ghozali, 2001). Such a research model can be explained using linear regression equation model (A. T. Ferdinand, et al., 2006) as follows:

$$Y = e0 + e1\ X1.1 + e2\ X1.2 + e3\ X1.3 + e4\ X1.4 + e5\ X1.5 + e6\ X1.6 + e7\ X1.7 + e8\ X1.8 + e9\ X1.9 + e10\ X1.10 + e11\ X1.11 + e12\ X1.12 + e13\ X1.13 + e14\ X1.14 + e11$$

where:

$X_{1.1}$ = Tangible = $(_{X1u.1})$

$X_{1.2}$ = Reliability = $(X_{1u.2})$

$X_{1.3}$ = Responsiveness = $(X_{1u.3})$

$X_{1.4}$ = Assurance = $(X_{1u.4})$

$X_{1.5}$ = Empathy = $(X_{1u.5})$

$X_{1.6}$ = Independent variable = (X_1)

$X_{1.7}$ = Ticket price variable = (X_2)

$X_{1.8}$ = Consumer satisfaction variable = (Y_1)

$X_{1.9}$ = Consumer loyalty variable = (Y_2)

$X_{1.10}$ = Dimension of Averaged Independent variable = (X_{3v})

$X_{1.11}$ = Dimension of Averaged Ticket price = (X_{4v})

$X_{1.12}$ = Dimension of Averaged Consumer satisfaction = (Y_{3v})

$X_{1.13}$ = Subsitute Dimension of Averaged Independent variable KP X_{3v} to KP X_1 = $[SubX_{3v}(X_1)]$

$X_{1.14}$ = X = Independent Variable, as Total Score of Data with Category (the first number)

Y = Dependent Variable, as Total Score of Data with Category (the second number)

e_0 , e_1 ...... e_{14} = the Coefficient of Regression for the 14 Independent Variables

e_{11} = Error Term

RESULTS AND DISCUSSIONS

The results of all calculated functional estimations (Unstandardized Coefficients), including all regression models: Regression Model I, Regression Model II and Regression Model III (Multiple Regression) and functional Model of Path Analysis Methoid (Standardized Coefficients) are as follows:
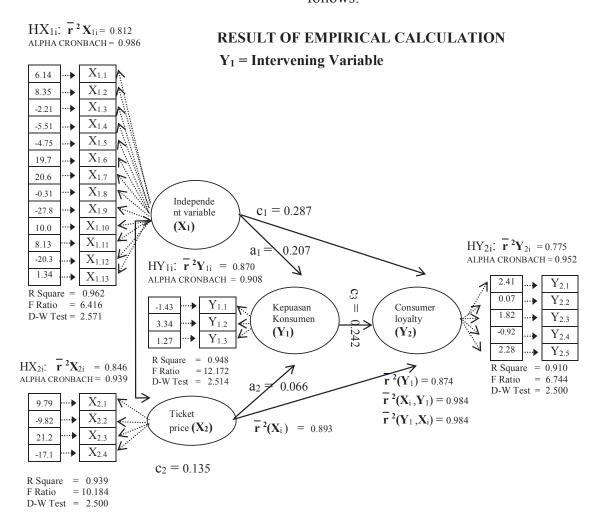

Figure 2 : Conceptual Model & Functional Relationship: Among Independent variable (X_1), Ticket price (X_2), Consumer satisfaction (Y_1), and Consumer Loyalty (Y_2). Estimated Results (Multiple Regression) to determine whether the function is *Normally Distributed*.

Unstandardized Coefficients:

Regression Model I :

$$Y_1 = 1.646730 + 0.207432\ X_1 + 0.065966\ X_2$$

$$Y_2 = 0.429787 + 1.648747\ Y_{1\ Calc}$$

$$Y_{2\ Calc} = 0.424256 + 0.287059\ X_1 + 0.135069\ X_2 + 0.241550\ Y_1$$

$$Y_{2\ Calc} = 0.424256 + 0.241550\ Y_1 + 0.287059\ X_1 + 0.135069\ X_2$$

Regression Model II:

$$\begin{aligned}
X_1 ={}& 38.000 + 6.138\ X_{1.1} + 8.351\ X_{1.2} - \\
& 2.210\ X_{1.3} - 5.507\ X_{1.4} - \\
& 4.753\ X_{1.5} + 19.660\ X_{1.6} + \\
& 20.596\ X_{1.7} - 0.311\ X_{1.8} - \\
& 27.837\ X_{1.9} + 10.044\ X_{1.10} + \\
& 8.126\ X_{1.11} - 20.261\ X_{1.12} + \\
& 1.340\ X_{1.13}
\end{aligned}$$

$$X_2 = 16.167 + 9.786\ X_{2.1} - 9.821 X_{2.2} + 21.154\ X_{2.3} - 17.104\ X_{2.4}$$

$$Y_1 = 11.369 - 1.431\ Y_{1.1} + 3.343\ Y_{1.2} + 1.265\ Y_{1.3}$$

$$Y_2 = 24.333 + 2.408\ Y_{2.1} + 0.071\ Y_{2.2} + 1.824\ Y_{2.3} - 0.924\ Y_{2.4} + 2.281\ Y_{2.5}$$

Path Analysis Method

Standardized Coefficients:

$$Y_1 = 0.912\ X_1 + 0.088\ X_2$$

$$Y_{2Calc} = 0.750\ X_1 + 0.107\ X_2 + 0.144\ Y_1$$

or

$$Y_1 = 0.912\ X_1 + 0.088\ X_2$$
$$Y_{2Calc} = 0.144\ Y_1 + 0.750\ X_1 + 0.107\ X_2$$

Indirect Influence of Independent Variable and Ticket price on Customer Satisfaction

1. **Regression Equation**

Based on the examination against the influence of independent variable and ticket price on consumer (customer) satisfaction, the results are obtained at Table 1.

Based on the estimation result of Model I (Multi-Linear Regression) indicated by the Standardized Coefficients, it can be stated by the following equation:

$$Y_1 = 0.912\ X_1 + 0.088\ X_2$$

This multi-linear regression equation shows that : a) The value of regression coefficient for independent variable (X_1) indicates positive value 0.912 and significance at $\alpha = 0.025$. It means if the independent variable provided by Patas Purwakarta train service provider can be improved, then the customer satisfaction (Y_1) will improve as well; b) The value of regression coefficient for ticket price variable (X_2) indicates positive value 0.088 and significance at $\alpha = 0.713$ [and has a very big confidence interval (or fairly much varies)]. It means, if the ticket price set by the transportation service provider is more competitive and more varied as well as affordable for consumers (Patas Purwakarta train service users)' purchasing power is applicable, then customer satisfaction (Y_1) will improve as well; c) Based on the value of regression coefficient, the most influential variable to improving customer satisfaction (Y_1) is independent variable (X_1). This is indicated by the value of regression coefficient for independent variable which is bigger than the regression coefficient for ticket price (X_2), where the significance $\alpha = 0.05$ meaning that the independent variable (X_1) is significant whereas the ticket price variable (X_2) is not significant, but the ticket price still can be enhanced because its positive regression coefficient is still big enough.

2. **Testing Hypothesis**

Test of Hypothesis 1: The Influence of Independent Variable on Customer Satisfaction

The hypothesis testing indicates that independent variable has impact on customer satisfaction as intervening variable; it is proven that value of t_{count} 4.203 is significant at $\alpha = 0.025$, whereas at the significance of 0.05 and degree of

freedom (df) = 3, so that t_{count} = 4.203 > t_{table} = 2.353 is also still significant. It means that the independent variable that is given can be enhanced, and then it can improve the customer satisfaction. This is in accordance with Hendy Irawan Juwandi (2004: 37) stating that one of the factors driving consumer satisfaction is the enhancement of independent variable

Based on the result of hypothesis testing it can be concluded that the test accept the first hypothesis, so the assumption on the existence of positive influence of independent variable on customer satisfaction is proven or acceptable. This research is consistent with the one carried out by Rachel (2007) that Quality has a significant influence on the consumer satisfaction and loyalty.

Test of Hypothesis 2: The Influence of Ticket Price on Customer Satisfaction

The hypothesis testing indicates that Ticket price has positive impact on the improvement of customer satisfaction. The value of t_{count} 0.405 is not significant at α = 0.713, since the value of t_{count} = 0.405 < t_{table} = 0.713. In this test Ho is accepted and Ha is rejected. It means that the test has no significant impact at α = 7.13 % and still significant at α = 10 % (and the most important is that the coefficient of estimated result give positive value as in the theory).

This result is in accordance with the statement of Rambat Lupiyoadi and Hamdani, A, et.al., (2001), that if a product requires consumers to pay a higher cost than its marginal utility that they receive,

then consumer satisfaction will decline or the product or service will have a negative vakue to consumer satisfaction, and the consumer loyalty will decline as well. It also applies for the opposite according to Rambat Lupiyoadi and Hamdani, A, et.al., (2006). Thus ticket price is in the position of very critical significance. Therefore, the ticket price offered should be more varied and more competitive and affordable for the users, so that it can still be tolerated in improving consumer satisfaction.

Based on the result of hypothesis testing it can be concluded that the test accept the second hypothesis, so the assumption on the existence of positive influence of ticket price on customer satisfaction is proven or acceptable. This research is in line with the one carried out by Ambar Setya Ningtyas (2008) that price has a significant influence on the consumer satisfaction.

The Influence of Independent Variable and Ticket Price on Customer Loyalty through Customer Satisfaction as the Intervening Variable.

1.   Regression Equation

Based on the estimated result for Model II (Multi-Linear Regression) Table 2 indicated by the Standardized Coefficients, it can be stated in the following equation:

$Y_2 = 0.750 X_1 + 0.107 X_2 + 0.144 Y_1$

This Multi-Linear Regression equation indicates that : a) The value of regression coefficient for independent variable (X_1) in the regression equation model II indicates positive value of 0.750

and it is significant at α = 0.018. It means that if the independent variable given by the provider of Patas Purwakarta train service can be enhanced, then customer satisfaction (Y_1) will improve, so it positively influences the improvement of customer loyalty (Y_2); b) The value of regression coefficient for ticket price variable (X_2) indicates positive value of 0.107 and it is significant at α = 0.118 [and has confidence interval which is very high (or much varied)]. It means that if ticket price offered by the provider of Patas Purwakarta train service is more competitive and more varied as well as affordable for the users, then customer satisfaction (Y_1) will improve, so it positively influences the improvement of customer loyalty (Y_2); c) The value of regression coefficient for customer satisfaction variable (Y_1) indicates positive value of 0.144 and it is significant at α = 0.304. It means that customer satisfaction can be improved. With the improvement of customer satisfaction, it will also positively influences the improvement of customer loyalty (Y_2); d) Based on the result of empirical test on the regression equation model II Path Analysis Method, it is found that the most influential variable for improving customer loyalty (Y_2) is the variable that indicates bigger regression coefficient value B (Unstandardized Coefficients) or the value of significance Beta or β = the smallest (Standardized Coefficients). Based on these requirements, the most influential variables for improving customer loyalty (Y_2) are independent variable (X_1), customer satisfaction (Y_1), and ticket price (X_2) respectively. The result

of empirical test in this research has found the theoretical implication and additional justification for some antecedents which positively influence customer loyalty altogether, so it is stated that ticket price (X_2) is weaker than independent variable (X_1) in improving both customer satisfaction (Y_1) and customer loyalty (Y_2).

2. Testing Hypothesis

Test of Hypothesis 3: The Influence of Independent Variable on Customer Loyalty through Customer Satisfaction

The independent variable test on consumer loyalty through intervening variable, i.e. consumer satisfaction, found the value of standardized beta 0.912 which is significant at α = 0.025, meaning that independent variable has impacts on customer satisfaction. If independent variable improves then customer satisfaction will improve as well. The value of standardized beta 0.912 is the value of path p3.

In the regression equation as described in Model II, the value of standardized beta for independent variable is found as 0.750 and customer satisfaction as 0.144 all which show significant impact. The value of standardized beta for independent variable as 0.750 is the value of path p4 and the value of standardized beta for consumer satisfaction as 0.144 is the value of path p5. The value of that path is e1 = [(1- 0.750)]$^{1/2}$ = 0.500 and e2 = [(1- 0.144)]$^{1/2}$ = 0.925.

The value of direct influence of independent variable on customer loyalty is

0.750, whereas the value of indirect influence should be calculated by multiplying the indirect coefficient (0.912) x (0.750) = 0.684. Regarding the direct coefficient is bigger than the value of regression coefficient for indirect relationship, it can be concluded that in actual there is a direct relationship between independent variable and consumer satisfaction.

Test of Hypothesis 4: The Influence oif Ticket Price on Customer Loyalty through Customer Satisfaction

From the test of ticket price on consumer loyalty through intervening variable, i.e. consumer satisfaction, it is found the value of standardized beta as 0.088 which is not significant at α = 0.713. It means that ticket price influences consumer satisfaction. If ticket price is enhanced then consumer satisfaction will improve. The value of standardized beta 0.088 is the value of path p3.

In the regression equation as described in Model II, the value of standardized beta for ticket price is found as 0.107 and customer satisfaction as 0.144 all which show significant impact. The value of standardized beta for ticket price as 0.107 is the value of path p4 whereas the value of standardized beta for consumer satisfaction as 0.144 is the value of path p5. The value of e1 = $[(1- 0.750)]^{1/2}$ = 0.500 and e2 = $[(1- 0.144)]^{1/2}$ = 0.925.

The value of direct influence of ticket price on customer loyalty is 0.107, whereas the value of indirect influence should be calculated by multiplying the indirect

coefficient (0.088) x (0.107) = 0.009. Regarding the direct coefficient is bigger than the value of regression coefficient for indirect relationship, it can be concluded that in actual there is a direct relationship between ticket price and consumer satisfaction.

The Influence of Customer Satisfaction on Customer Loyalty

The research shows that the value of tcount for customer satisfaction is 1.369 which is significant at α = 0.304. This indicates that there is a significant influence of customer satisfaction on customer loyalty. This is in line with the research carried out by Wenny Maylina (2003), where satisfaction has positive significant influence on consumer's brand loyalty. Based on the hypothesis test it can be concluded that the test accept the fifth hypothesis, so the assumption on the existence of influence of customer satisfaction (Y1) on customer lotalty (Y2) is acceptable.

Multi-Linear Regression Analysis

The estimated results, Table 3, Table 4, Table 5 (multiple regression) of 14 independent variables classified as Customer satisfaction variables toward Dependent Variable: Y = Dependent variable (Data in the Category of Total II) representing Customer loyalty from all respondents of this research indicate the model precision which is significant at α = 5 % and $F_{0.05}$ ($v_{0.05}$, v_{010}) with the value of FRatio is big, and able to explain the variance of Customer loyalty with the value

of Determination Coefficient or Adjusted R Square (R^2) 0.988. It means that 98.8% of the customer loyalty variance is explained by all its independent variables, while the rest of 0.012 or 1.2% is explained by the variables not included in this research.

Regarding the individual impact of each independent variable, there are 4 variables that have negative impoact on Customer loyalty, namely: (1) Tangible = $X_{1u.1}$, (2) Empathy = $X_{1u.5}$, (3) Independent variable (X_1) and (4) Customer loyalty variable (Y_2), signalling that the effort top maximize the improvement of Customer loyalty through both Main Dimensions (Total) of Independent variable ($X_{1u.i}$) has not been optimal yet.

The transportation service provider should try to renew and improve the displayed Tangibles by increasing the number of coaches or railway trains which are ready to operate so that it does not take a long time for the passengers to get on Patas Purwakarta train and by improving the facilities within Patas Purwakarta train to establish loyal customers every year. Meanwhile, the Emphaty that should be given by the service provider is establishing loyal customers, improving the service quality (independent variable) to passengers in the form of Emphaty Dimension. The decline of two Main Dimensions (Total) of Independent variable ($X_{1u.i}$), i.e. Tangible and Empathy has negative impacts on Independent variable (X_1) and (4) Customer loyalty variable (Y_2).

The most influential variable for improving customer loyalty (Y_2) is the one that shows bigger value of regression coefficient B (Unstandardized Coefficients) or the smallest value of significance Beta or β (Standardized Coefficients). The variable is Reliability = X1u.2, which is proven to fulfill the demands for good services and positive impression the first time passengers get on Patas Purwakarta train; the services suitable with passengers expectation; and for ability to tackle the problems of customer service in a good way to make the customers loyal to Patas Purwakarta train service.

The reability, as exemplified by Lerbin Aritonang (2005), of three indicators of independent variables in sequential number: (5) Honesty in providing explanation, (6) Hospitality, and (7) Speed of service, according to Tjiptono (2000), includes two essential things, namely: (i) Performance and (ii) dependability. It means that the company delivers its services right the first time. It also means that the company fulfill its promise. The reliability for transportation services is examplified by such things as: (a) Serving passengers well the first time they use the available service, (b) Serving at the time promised, and (c) Paying sincere attention to consumers (passengers) by showing the vacant seats.

Based on the empirical test, two-third of 5 Main Dimensions (Total) of Independent variable ($X_{1u.i}$) are proven to have positive impacts in improving customer loyalty. This empirical test

explicitly supports the statements of Rambat Lupiyoadi and Hamdani, A, et.al., (2001) and marketing experts (Zeithaml, Valarie A., A Parasuraman, Berry, Leonard L, et.al., (1990) that one of the main factors a company has to pay attention in improving customer satisfaction is independent variable, which can be measured through 5 factors, i.e. tangible, reliability, responsiveness, assurance, empathy.

CONCLUSION

Based on the empirical test therough multi-linear regression analysis using Path Analysis Method, it is found that both Independent variable (X_1) and Ticket price (X_2) have significant direct influence on Customer satisfaction variable (Y_1). Whereas customer satisfaction variable has significant indirect influence on Customer loyalty variable (Y_2) [through the intervening variable of customer satisfaction]. It is found that the most influential variables for improving Customer loyalty are Independent variable, Customer satisfaction, and Ticket price respectively.

The superiority of Independent variable over Ticket price in improving Customer loyalty is determined by the direct optimization done simultaneously through 5 factors that have positive impact on improving customer loyalty, i.e. Tangible, Reliability, Responsiveness, Assurance, and Empathy both physically and non-physically in order to get an optimum quality service which, in turn,

makes the passengers or customers impressed, satisfied, and even loyal to the transportation service offered.

Meanwhile, the ability of Ticket price to improve Customer loyalty (Y_2) is categorized weaker than the ability of independent variable (X_1). It is much determined by the non-physical factors that should be considered in terms of economics, "tradeoff" for incuring costs as the carrying fee (ticket price) compared with the marginal utility received by the consumers or customers, making difficult to implement the service provider's policy to set up the transportation tariff. Beside it is a boomerang for the transport service provider due to its negative impact of declining consumer satisfaction, it is also a tradeoff for a series of policies made by the provider because it makes consumers or customers become disloyal. Responding such a condition, the last weapon in setting up Ticket price through the policy on tarnsportation tariff can only be driven if the ticket price set up by the provider is more competitive and more varied as well as affordable for the purchasing power of the service users. In the other words, the consumers or customers are faced only with two alternatives:"buy the ticket or not" or "use Patas Purwakarta train service or other modes of transport".

Based on the empirical test through multi-linear regression analysis which estimates 14 independent variables, thus involving all the data in the variables related to—and complete—the Path Analysis Method, it is found a research model

which has good fitness with goodness of fit regression models and all the hypotheses in this research are normally distributed (after passing through various statistical tests) with the value of Determination Coefficient or Adjusted R Square (R^2) 0.988. It means that 98.8% of the customer loyalty variance is explained by all its independent variables, whereas the rest of 0.012 or 1.2 % is explained by other variables not included in this research.

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ATTACHMENTS

Table 1 Regression Equation Model I The Influence of Independent Variable and Ticket Price on Customer Satisfaction Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1. (Constant)	1.647	4.424		.372	.704
Independent variable	.207	.049	.912	4.203	.025
Ticket price	6.597E-02	.163	.088	.405	.713

a Dependent Variable: Y_1 = Consumer satisfaction (Observed)

Source: Primary Data from Survey, processed by the authors, 2013

Table 1 Regression Equation Model I The Influence of Independent Variable and Ticket Price on Customer Satisfaction Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1. (Constant)	.424	1.383		.307	.788
Independent variable	.287	.040	.750	7.253	.018
Ticket price	.135	.051	.107	2.643	.118
Consumer satisfaction	.242	.176	.144	1.369	.304

a Dependent Variable: $Y_{2\ Calc}$ (One-Stage Regression as Observed) = Consumer loyalty (Calculated)

Source: Primary Data from Survey, processed by the authors, 2013

Tabel 3 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df_1	df_2	Sig. F Change	
1	.995[a]	.989	.988	20.44158	.989	709.404	14	110	.000	1.255

a. Predictors: (Constant), X = Independent Variable (Total value), Dimension of AveragedIndependent variable = X_{3v}, Independent variable = X_1, Dimension of Averaged Consumer satisfaction = Y_{3v}, Consumer loyalty variable = Y_2, Consumer satisfaction variable = Y_1, Subsitute Dimension of Averaged KP X_{3v} to KP X_1 = $SubX_{3v}(X_1)$, Empathy = $X_{1u.5}$, Assurance = $X_{1u.4}$, Responsiveness = $X_{1u.3}$, Reliability = $X_{1u.2}$, Dimension of Averaged Ticket price = X_{4v}, Ticket price variable = X_2, Tangible = $X_{1u.1}$

b. Dependent Variable: Y = Dependent Variable (Total II)

Source: Primary Data from Survey, processed by the authors, 2013

Table 4 ANOVAª

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4150022.349	14	296430.168	709.404	.000ᵇ
	Residual	45964.407	110	417.858		
	Total	4195986.756	124			

a. Dependent Variable: Y = Dependent Variable (Total II)

b. Predictors

Source: Primary Data from Survey, processed by the authors, 2013

Table 5 Coefficient for Estimated Results Coefficientsª

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	9.936	2.398		4.144	.000		
Tangible = $X_{1u.1}$	-.909	.705	-.151	-1.291	.200	.007	136.768
Reliability = $X_{1u.2}$	.582	.656	.096	.887	.377	.008	118.340
Responsiveness = $X_{1u.3}$	.234	.453	.040	.517	.606	.017	59.049
Assurance = $X_{1u.4}$	.104	.145	.014	.721	.472	.274	3.647
Empathy = $X_{1u.5}$	-.046	.149	-.006	-.308	.758	.267	3.747
Independent variable = X_1	-.039	.064	-.049	-.603	.547	.015	65.309
Ticket price variable = X_2	.193	.208	.076	.928	.356	.015	67.019
Consumer satisfaction variable = Y_1	.184	.047	.055	3.928	.000	.503	1.990
Consumer loyalty variable = Y_2	-.142	.144	-.015	-.987	.326	.454	2.204
Dimension of Averaged Independent variable = X_{3v}	.143	.156	.070	.918	.360	.017	58.598
Dimension of Averaged Ticket price = X_{4v}	-.152	.258	-.045	-.587	.558	.017	59.526
Dimension of Averaged Consumer satisfaction = Y_{3v}	.077	.041	.023	1.882	.062	.658	1.520
Subsitute Dimension of Averaged Independent variable KP X_{3v} to KP X_1 = $SubX_{3v}(X_1)$	-.060	.149	-.006	-.405	.686	.453	2.208
X = Independent Variable (Total Value)	.842	.020	.960	41.498	.000	.186	5.377

a. Dependent Variable: Y = Dependent Variable (Total II)

Source: Primary Data from Survey, processed by the authors, 2013