THE INFLUENCE OF BRAND IMAGE, PRICE PERCEPTION, AND SERVICE QUALITY ON CUSTOMER’S LOYALTY OF “POS EXPRESS” WITH CUSTOMERS’ SATISFACTION AS INTERVENING VARIABLE (A CASE STUDY AT SEMARANG PROCESSING CENTRE)

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Abstract
This study aims to identify and analyze the influence of brand image, price perception, and service quality on customer’s loyalty of Pos Express with customers’ satisfaction as intervening variable. This study is counted as research survey, the population in this study is the customer who had used Pos Express more than twice. The technique used for collecting the data is purposive sampling, with obtained sample as many as 100 people. The research instrument used in this study has been tested it’s validity and reliability. The data analysis tools used for research hypotheses is path analysis with helps from multiple linear regression and sobel test. The result of first regression model shows that there are two independent variables which is significant on customers’ satisfaction partially and one was not. Price perception variable has the most influence on Pos Express customers’ satisfaction. The value of coefficient determination R2 is 0.205, which means that all independent variables ability to explain the variance on Pos Express customers’ satisfaction variable is 20.5%, and the rest can be explained by other variables that not included in this research. The result of second regression model shows that there are four independent variables affect customer’s loyalty partially and simultaneously. Price perception has the most influence on Pos Express customer’s loyalty. The value of coefficient determination R2 is 0.579, which means that all independent variables ability to explain the variations on Pos Express customer’s loyalty variable is 57.9%, and the rest can be explained by other variables that not included in this study. According to the result of sobel test, partially price perception and service quality have significant indirect effect on customer’s loyalty of Pos Express through customers’ satisfaction. While brand image doesn’t has indirect effect on customer’s loyalty through customers’ satisfaction.

Keywords: brand image, price perception, service quality, customers’ satisfaction, customer’s loyalty.

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Introduction
The delivery services and logistics in Indonesia are developing rapidly, because the customers’ need on an inexpensive, secure and fast delivery service is very high. Another thing that drive this rapid grow is the release of ACT NO. 38 OF 2009, where the companies which can enter delivery service are broader, not only limited to State-owned Companies (Badan Usaha Milik Negara), but City-owned Enterprise (Badan Usaha Milik Daerah) or Cooperative and Private Companies could be included in delivery services.
One of delivery courier companies in Indonesia is Pos Indonesia that work in traffic of information, money and goods. Letter and package delivery services, finances and logistic are the services which Pos Indonesia offer to their customers. The market share for delivery courier service in Indonesia can be seen in Figure 1.

Figure 1 Delivery Couriers Market Share In Indonesia 2015

Source: http://www.bataviase.co.id/node/68 6690, 2017

With the change of time, the most dominant couriers provider in Indonesia are JNE and TIKI as can be seen from Figure 1 where JNE control 27% of delivery services market share in Indonesia, while TIKI seized 24% from the total. POS INDONESIA as a State-owned company must be satisfied with 19% of delivery services market share in Indonesia. From Figure 1, it could be concluded that Pos Indonesia is left behind by its competitors.

Table 1  Price Comparison Between Courier Services In Indonesia

<table>
<thead>
<tr>
<th>Courier</th>
<th>Service</th>
<th>ETA</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pos Indonesia</td>
<td>Pos Express</td>
<td>1 days</td>
<td>Rp 28.000,-</td>
</tr>
<tr>
<td></td>
<td>Kilat Khusus</td>
<td></td>
<td>Rp 18.000,-</td>
</tr>
<tr>
<td>JNE</td>
<td>REG</td>
<td>1-2 days</td>
<td>Rp 18.000,-</td>
</tr>
<tr>
<td></td>
<td>OKE</td>
<td>2-3 days</td>
<td>Rp 16.000,-</td>
</tr>
<tr>
<td>TIKI</td>
<td>ONS</td>
<td>1 days</td>
<td>Rp 26.000,-</td>
</tr>
<tr>
<td></td>
<td>REG</td>
<td>2 days</td>
<td>Rp 17.000,-</td>
</tr>
<tr>
<td>J&amp;T Express</td>
<td>EZ</td>
<td></td>
<td>Rp 18.000,-</td>
</tr>
</tbody>
</table>

Source: http://www.cektarif.com
Customer tends to use courier services which is suitable with their preferences, such as a trusted company, competitive price commensurate with delivery time estimation, and good service quality. In Table 1, there are price comparison between Pos Indonesia, JNE, TIKI and J&T for merchandize with 1 kilogram weight from Jakarta to Semarang. From Table 1, it can be seen that the couriers have several kind of services depend on arrival estimation day. Each companies are very competitive. Company cannot solely depends on the competitive prices, it needs necessary efforts to win over the customer.

Customer’s loyalty is an important aspect and an asset for the company to keep survive. The benefit of customer’s loyalty is a lower cost to keep customers than to continually seeking the new ones. Griffin (2005: 51) emphasis on creating customer’s loyalty as a result of interpersonals that happened between customer and employees who providing service. Griffin also suggests two key factors in building customer’s loyalty, the attention to the value of the products or service and the development of relationship with customers. Customer’s loyalty is influenced by many factors among brand image and service quality backed by Halimet et al. (2014) and Syahfudin and Ruswanti (2015); price perception backed by Kusdyah (2012) and Kaura (2012); as well as customers’ satisfaction backed by Hayati (2011).

The definition of customer’s loyalty as stated by Tjiptono (2016: 204) where “Customer’s loyalty adalah kelekatan pelanggan pada suatu merek, toko, pabrikan, pemberi jasa, atau entitas lain berdasarkan sikap yang sangat positif dan tercermin dalam pembelian ulang yang konsisten”. It could be said that customer’s loyalty is a result of customer coherency of the brand, shop, service providers or other entity which could be seen in consistent repurchase. To measure customer’s loyalty, this research used the following indicators (Griffin, 2005: 31) customers repurchase, Word of Mouth (WoM), and customer immunity to competitors’ persuasions.

The American Marketing Association (Kotler and Keller. 2012: 241) defines a brand as “a name, term, sign, symbol, or design or a combination of these, intended to identify the goods or services of one seller or a group of sellers and to differentiate them from those of competitors.” A brand is thus a product or service whose dimensions differentiate them from other product or service designed to satisfy the same need. The power of brand image situated on what customers learnt, viewed, and heard about the brand as a result of their experience (Keller, 2003. Tambunan (2012) suggest the measurement of brand image with the brand is easy to remeber, trusted brand, and the brand differentiate it from competitors.

Price according to Tjiptono (2007: 178) can mean as an amount of money and/or other aspect which contain potential attribute or factor to satisfy the need and desire. Also, sacrifice of time because of waiting for product or service (Lupiyoadi, 2001; Soelistio, 2016: 21). Price perception related to how information on prices give complete understanding and meaning for the customers. Price perception is about comparing customer sacrifice with the benefits that would be obtained from products and services (Zeithaml, 1988; Ike Kusdyah, 2012). Price perception could be measured with the conformity price with quality products, the suitability of price with its benefits, and the competitive prices.

American Society for Quality give definition of quality as the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs (Kotler and Keller, 2012: 131). A customer could say that the company has good quality whenever its product meets or exceeds the customer expectations. Kotler and Keller (2012: 374) identified five dimensions of service quality as reliability, responsiveness, assurance, empathy, and tangibles.
The most important factor to create customer’s loyalty is by creating customers’ satisfaction, then the trust will be formed and ultimately create customer’s loyalty (Wang et al. 2008; Bowden. 2009; Hayati. 2011). Customers’ satisfaction (Kotler and Keller, 2012: 128) could be meant as a person’s feelings of pleasure or disappointment that result from comparing a product’s perceived performance to expectations. The indicators used for measuring customers’ satisfaction, according to Yuliarmi and Riyasa (2007) are the conformity of service quality with expectation, the level of satisfaction compared with similar service and there is no complaints filed.

**Conceptual Framework**

Conceptual framework is used in research to outline possible courses of action or to present a preferred approach to an idea. It is used to helps the researcher see clearly the variables of the study and provide general framework for data analysis. Based on literature review of studies on relationship between brand image, price perception, service quality, customers’ satisfaction and customer’s loyalty, researcher expect a positive relationship between variables, and formed the conceptual framework as shown in Figure 2.

![Figure 2. Conceptual Framework](source: Author research, 2017)

Therefore, the hypotheses of this research visualized as follows:

H1: Brand image has positive significant influence on customers’ satisfaction.
H2: Price perception has positive significant influence on customers’ satisfaction.
H3: Service quality has positive significant influence on customers’ satisfaction.
H4: Brand image, price perception, and service quality simultaneously have significant influence on customers’ satisfaction.
H5: Brand image has positive significant influence on customer’s loyalty.
H6: Price perception has positive significant influence on customer’s loyalty.
H7: Service quality has positive significant influence on customer’s loyalty.
H8: Customers’ satisfaction has positive significant influence on customer’s loyalty.
H9: Brand image, price perception, service quality, and customers’ satisfaction simultaneously have significant influence on customer’s loyalty.

**Methodology**

A questionnaire was designed to gain important information about customer loyalty...
of Pos Express in Semarang Processing Centre, since the purpose of this study is to find out the factors that were influencing the customer to stay loyal to the company. About 18 items were developed in the questionnaire and distributed using convenient sampling method. The questionnaire also use 5-point scale that ranging from “strongly disagree” to “strongly agree”. To test the hypotheses t-test and f-test was applied, while sobel test was used to determine the significance influence of indirect effect of the study.

**Result and Discussion**

**Data Transformation**

The type of data qualify to measure regression analysis was intervals or ratio data. While this research using Likert Scale that produce ordinal data. It is therefore needs to change or transforming the data from ordinal into interval. The method that often used in transforming the data is Successive Interval Method (SIM). The steps for SIM are as follows:

a. To calculate the frequency (F)
   Frequency are the number of response respondents in choosing ordinal scale of 1 until 5 for every question by the number of 100 respondents.

b. To calculate the proportion (P)
   The proportion is calculated by dividing every frequency with total quantity of frequency.

c. To calculate the cumulative proportion (CP)
   The cumulative proportion can be calculated by adding the proportion alternately.

d. To calculate the value of Z (Z)
   The value of Z can be count using Excel formula of Norm.S.Inv(Probability). The probability is the value of CP.

e. To calculate the value of F density (F(z))
   The value of F density of F(z) can be count using Excel formula of Norm.Dist(x;mean;standard dev;cumulative). The value of x can be replaced with the value from column Z, mean can be filled with 0, standard_dev can be filled with 1, and cumulative can be filled with 0. So it would look like this: Norm.Dist(-2.3702143;0;1;0).

f. To calculate the value of scale (S)

g. To calculate the value of interval (I)
   The interval value can be calculated by adding Scale with the smallest scale value that have been standardized and adding 1. So it would look like: -2.70488+|-2.70488|+1.

The calculation of data transformation can be seen in Table 2.

<table>
<thead>
<tr>
<th>Ordinal</th>
<th>F</th>
<th>Scale</th>
<th>Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16</td>
<td>-2.70488</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>207</td>
<td>-1.56982</td>
<td>2.13</td>
</tr>
<tr>
<td>3</td>
<td>113</td>
<td>-1.01702</td>
<td>2.68</td>
</tr>
<tr>
<td>4</td>
<td>1023</td>
<td>-0.08084</td>
<td>3.62</td>
</tr>
<tr>
<td>5</td>
<td>441</td>
<td>1.283121</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>1800</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed primary data, 2017

**Classical Assumption**

**Linearity Test**

The concept of linearity test is to see whether the regression model is linear or not. Two
variables stated to have linear regression if Sig. (linearity) < 0.05. Linearity test is done by

**Table 3 The Result Of Linearity Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Linearity</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z*X1</td>
<td>11.940</td>
<td>11.940</td>
<td>0.001</td>
</tr>
<tr>
<td>Z*X2</td>
<td>22.831</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Z*X3</td>
<td>15.840</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Y*X1</td>
<td>32.203</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Y*X2</td>
<td>57.732</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Y*X3</td>
<td>42.627</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Y*Z</td>
<td>61.481</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed primary data, 2017

The result of linearity test as be seen in Table 3, all Sig. Linearity < 0.05, then it can be concluded that all variables have linear relationship.

**Normality Test**
The normality test aims to test whether in the regression model, both of independent variables and dependent variable have normal distribution (Ghozali, 2016: 154). Kolmogorof Smirnov was used to determine whether the data normally distributed or not. If the analysis show that Sig. > 0.05 then the data is normally distributed (Lupiyoadi and Ikhsan, 2013: 138).

**Table 4 The Result Of Normality Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Asymp. Sig 2-tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers’ satisfaction</td>
<td>0.100</td>
</tr>
<tr>
<td>Customer’s loyalty</td>
<td>0.200</td>
</tr>
</tbody>
</table>

Source: Processed primary data, 2017

Because in this research using two regression model, therefore there are two dependent variables, the first model is customers’ satisfaction and the second model is customer’s loyalty. From table 4, it can be seen that the analysis result have Sig. > 0.05 which means that the data is normally distributed

**Heteroscedasticity Test**
Heteroscedasticity reflects inconstant error variance, which in turn may compromise the validity of significance test and goodness-of-fit indicators (Ghozali, 2016: 134). Glejser test was used in this research, if Sig. > 0.05 then it indicates no heteroscedasticity.
Table 5 The Result Of Heteroscedasticity Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Image</td>
<td>.790</td>
<td>.431</td>
<td></td>
</tr>
<tr>
<td>Price Perception</td>
<td>-.713</td>
<td>.477</td>
<td></td>
</tr>
<tr>
<td>Service Quality</td>
<td>-.830</td>
<td>.409</td>
<td></td>
</tr>
<tr>
<td>Dependent: Customers’ satisfaction (Z)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Image</td>
<td>.394</td>
<td>.695</td>
<td></td>
</tr>
<tr>
<td>Price Perception</td>
<td>.383</td>
<td>.702</td>
<td></td>
</tr>
<tr>
<td>Service Quality</td>
<td>.124</td>
<td>.902</td>
<td></td>
</tr>
<tr>
<td>Customers’ satisfaction</td>
<td>.717</td>
<td>.475</td>
<td></td>
</tr>
<tr>
<td>Dependent: Customer’s loyalty (Y)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed primary data, 2017

Table 5 shows that all independent variables have Sig. > 0.05, then it could be concluded that all variables free from heteroscedasticity assumption.

Multicollinearity Test

Multicollinearity is conditions that arise when two or more predictor variables are highly correlated with each other (Lupiyoadi and Ridho, 2010: 141). To determine the symptoms of multicollinearity is by looking at the value of Variance Inflation Factor (VIF).

Table 6 The Result Of Multicollinearity Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Collinearity Statistics</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Image</td>
<td>.869</td>
<td>1.151</td>
<td></td>
</tr>
<tr>
<td>Price Perception</td>
<td>.859</td>
<td>1.164</td>
<td></td>
</tr>
<tr>
<td>Service Quality</td>
<td>.860</td>
<td>1.163</td>
<td></td>
</tr>
<tr>
<td>Dependent: Customers’ satisfaction (Z)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Image</td>
<td>.843</td>
<td>1.187</td>
<td></td>
</tr>
<tr>
<td>Price Perception</td>
<td>.794</td>
<td>1.260</td>
<td></td>
</tr>
<tr>
<td>Service Quality</td>
<td>.819</td>
<td>1.221</td>
<td></td>
</tr>
<tr>
<td>Customers’ satisfaction</td>
<td>.771</td>
<td>1.296</td>
<td></td>
</tr>
<tr>
<td>Dependent: Customer’s loyalty (Y)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed primary data, 2017
According to Table 6, it is known that all variables from model 1 and model 2 show that Variance Inflation Factor (VIF) score is less than 10 and the tolerance more than 0.1. So it could be concluded that there are no multicollinearity is this research.

Determinant Coefficient (R2)
Coefficient of determination measure the proportion of the variance of the dependent variable its mean that is explained by the independent, predictor, or variables. The coefficient can vary between 0 and 1. If the regression model is properly applied and estimated, the researcher can assume that the higher the value of Adjusted R2, the greater the explanatory power of the regression equation and therefore the better the prediction of the independent variable (Ghazali, 2006).

a. Model 1
The value of determinant coefficient for model 1 can be seen in Table 7.

<table>
<thead>
<tr>
<th>Model</th>
<th>R-Square</th>
<th>Adjusted R-Square</th>
<th>Std. Error of Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.229</td>
<td>.205</td>
<td>.62051</td>
</tr>
</tbody>
</table>

Source: Processed primary data, 2017

Based on the data in Table 7, it shows the value of Adjusted R2 is 0.205. It can be concluded that all independent variables (brand image, price perception, and service quality) ability to explain the variations on customers’ satisfaction variable using Pos Express is 20.5%. And the rest can be explained by other variables which not included in this research.

b. Model 2
The value of determinant coefficient for model 1 can be seen in Table 8.

<table>
<thead>
<tr>
<th>Model</th>
<th>R-Square</th>
<th>Adjusted R-Square</th>
<th>Std. Error of Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.596</td>
<td>.579</td>
<td>.54054</td>
</tr>
</tbody>
</table>

Source: Processed primary data, 2017

According to the data on the Table 8, it shows the value of Adjusted R2 is 0.579. It can be concluded that all independent variables (brand image, price perception, service quality, and customers’ satisfaction) ability to explain the variations on customer’s loyalty variable using Pos Express is 59.6%. And the rest can be explained by other variables which not included in this research.

F-Test
This test is used to test the influence of the independent variables with the dependent
variables simultaneously. Testing through F-test or variations by comparing the significance level. If Sig. < 0.05, then H0 is rejected and Ha is accepted. It showed that there is a significant influence on dependent variable.

Table 9 The Result Of F-Test

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variable</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X1, X2, X3</td>
<td>Z</td>
<td>9.484</td>
<td>.000</td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X1, X2, X3, Z</td>
<td>Y</td>
<td>34.992</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Processed primary data, 2017

The result of f-test will be explained as follows:

a. X1, X2, X3 on Z
H04: Brand image, price perception, and service quality have no significant influence simultaneously on customers’ satisfaction of Pos Express.
(H04 : \( \beta_1 = \beta_2 = \beta_3 = 0 \))
Ha4: Brand image, price perception, and service quality have significant influence simultaneously on customers’ satisfaction of Pos Express.
(Ha4 : \( \beta_1 \neq \beta_2 \neq \beta_3 \neq 0 \))

From Table 9, it can be known that Sig. 0.000 < 0.05. So it could be concluded that H04 is rejected and Ha4 is accepted, which mean that independent variables (brand image, price perception, service quality, and customers’ satisfaction) have significant influence simultaneously on customer’s loyalty as dependent variable.

b. X1, X2, X3, Z on Y
H09: Brand image, price perception, service quality, and customers’ satisfaction have no significant influence simultaneously on customer’s loyalty of Pos Express.
(H09 : \( \beta_5 = \beta_6 = \beta_7 = \beta_8 = 0 \))
Ha9: Brand image, price perception, service quality, and customers’ satisfaction have significant influence simultaneously on customer’s loyalty of Pos Express.
(Ha9 : \( \beta_5 \neq \beta_6 \neq \beta_7 \neq \beta_8 \neq 0 \))

From Table 9, it can be known that Sig. 0.000 < 0.05. So it could be concluded that H09 is rejected and Ha9 is accepted, which mean that independent variables (brand image, price perception, service quality, and customers’ satisfaction) have significant influence simultaneously on customer’s loyalty (dependent variable).

T-Test
Partial test or also known as t-test is testing the personal partial regression coefficient that is used to find out whether independent variables influence dependent variable. T-test was done by comparing the significance level. If the test results show (Wijaya, 2013: 128) that Sig. < 0.05, then Ho is rejected and Ha is accepted, it’s mean that independent variable could explain dependent variable and there is a significant influence between the variables.
The hypotheses from t-test can be explained as follows:

a. Brand image on customers’ satisfaction
H01: Brand image has no significant influence partially on customers’ satisfaction of Pos Express. (H01: β1=0)
Ha1: Brand image has positive significant influence partially on customers’ satisfaction of Pos Express. (Ha1: β1≠0)
The result of t-test for variable brand image in model 1, which can be seen in Table 10, provided Sig. 0.086. Because Sig 0.086 > 0.005, then H01 is accepted and Ha1 is rejected. It could be concluded that brand image has no significant influence partially on customers’ satisfaction.

b. Price perception on customers’ satisfaction
H02: Price perception has no significant influence partially on customers’ satisfaction of Pos Express. (H02: β2=0)
Ha2: Price perception has positive significant influence partially on customers’ satisfaction of Pos Express. (Ha2: β2≠0)
The result of t-test for variable price perception in model 1, which can be seen in Table 10, provided Sig. 0.006 < 0.05, then H02 is rejected and Ha2 is accepted. It could be concluded that price perception has positive significant influence partially on customers’ satisfaction.

c. Service quality on customers’ satisfaction
H03: Service quality has no significant influence partially on customers’ satisfaction of Pos Express. (H03: β3=0)
Ha3: Service quality has positive significant influence partially on customers’ satisfaction of Pos Express. (Ha3: β3≠0)
The result of t-test for variable service quality in model 1, which can be seen in Table 10, provided Sig. 0.032 < 0.05, then H03 is rejected and Ha3 is accepted. It could be concluded that service quality has positive significant influence partially on customers’ satisfaction.

d. Brand image on customer’s loyalty
H05: Brand image has no significant influence partially on customer’s loyalty of Pos Express. (H05: β5=0)
Ha5: Brand image has positive significant influence partially on customer’s loyalty of Pos Express. (Ha5: β5≠0)
The result of t-test for variable brand image in model 2, which can be seen in Table 10,
provided Sig. 0.001 < 0.05, then H05 is rejected and Ha5 is accepted. It could be concluded that brand image has positive significant influence partially on customer’s loyalty.

e. Price perception on customer’s loyalty
H06: Price perception has no significant influence partially on customer’s loyalty of Pos Express. (H06: β6=0)
Ha6: Price perception has positive significant influence partially on customer’s loyalty of Pos Express. (Ha6: β6 ≠0)
The result of t-test for variable price perception in model 2, which can be seen in Table 10, provided Sig. 0.000 < 0.05, then H06 is rejected and Ha6 is accepted. It could be concluded that price perception has positive significant influence partially on customer’s loyalty.

f. Service quality on customer’s loyalty
H07: Service quality has no significant influence partially on customer’s loyalty of Pos Express. (H07: β7=0)
Ha7: Service quality has positive significant influence partially on customer’s loyalty of Pos Express. (Ha7: β7 ≠0)
The result of t-test for variable service quality in model 2, which can be seen in Table 10, provided Sig. 0.003 < 0.05, then H07 is rejected and Ha7 is accepted. It could be concluded that service quality has positive significant influence partially on customer’s loyalty.

g. Customers’ satisfaction on customer loyalty
H08: Customers’ satisfaction has no significant influence partially on customer’s loyalty of Pos Express. (H08: β8=0)
Ha8: Customers’ satisfaction has positive significant influence partially on customer’s loyalty of Pos Express. (Ha8: β8 ≠0)
The result of t-test for variable customers’ satisfaction in model 2, which can be seen in Table 10, provided Sig. 0.000 < 0.05, then H08 is rejected and Ha8 is accepted. It could be concluded that customers’ satisfaction has positive significant influence partially on customer’s loyalty.

Multiple Regression
To answer the problem in this study, researchers used multiple linear regression analysis (multiple regression). This analysis shows that the dependent variable will depend (influenced) on more than one independent variable.

a. First Structural Equation
The first structural equation is a to see the influence of independent variables which is, price perception and service quality on dependent variable.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficient Beta</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constanta</td>
<td>.963</td>
<td>.22</td>
</tr>
<tr>
<td>Brand Image</td>
<td>.173</td>
<td></td>
</tr>
<tr>
<td>Price Perception</td>
<td>.277</td>
<td>.9</td>
</tr>
<tr>
<td>Service Quality</td>
<td>.245</td>
<td></td>
</tr>
</tbody>
</table>

Dependent: Customers’ satisfaction

Table 11 First Structural Equation

Source: Processed primary data, 2017
Based on Table 11, the first structural equation is:
\[ Z = a + pZX1 + pZX2 + pZX3 + e1 \]
\[ Z = 0.963 + 0.173 X1 + 0.277 X2 + 0.245 X3 + 0.878 e1 \]

According to regression coefficient of first structural equation, it can be explained as follows:
1. It indicates that if there is no brand image, price perception and service quality, then the customer still satisfied.
2. Price perception (X2) has positive direct and significant effect on customers’ satisfaction (Z) with coefficient value is 0.277.
3. Service quality (X3) has positive direct and significant effect on customers’ satisfaction (Z) with coefficient value is 0.245. It can be concluded that price perception has the most influence on customers’ satisfaction with coefficient value 0.277.

b. Second Structural Equation
The second structural equation is a to see the influence of independent variables which is brand image, price perception, service quality and customers’ satisfaction on dependent variable.

Table 12 Second Structural Equation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficient Beta</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constanta</td>
<td>-1.922</td>
<td></td>
</tr>
<tr>
<td>Brand Image</td>
<td>0.296</td>
<td></td>
</tr>
<tr>
<td>Price Perception</td>
<td>0.382</td>
<td></td>
</tr>
<tr>
<td>Service Quality</td>
<td>0.311</td>
<td></td>
</tr>
<tr>
<td>Customers’ satisfaction</td>
<td>0.380</td>
<td></td>
</tr>
<tr>
<td>Dependent: Customer’s loyalty</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed primary data, 2017

Based on Table 12, the second structural equation is:
\[ Y = a + pYX1 + pYX2 + pYX3 + pYZ + e2 \]
\[ Y = -1.922 + 0.296 X1 + 0.382 X2 + 0.311 X3 + 0.380 Z + 0.6356 e2 \]

According to regression coefficient of second structural equation, it can be explained as follows:
1. It indicates that if there is no brand image, price perception, service quality, and customers’ satisfaction, then the customer won’t be loyal.
2. Brand image (X1) has positive direct and significant effect to customer’s loyalty (Y) with coefficient value is 0.296.
3. Price perception (X2) has positive direct and significant effect to customer’s loyalty (Y) with coefficient value is 0.382.
4. Service quality (X3) has positive direct and significant effect to customer’s loyalty (Y) with coefficient value is 0.311.
5. Customers’ satisfaction (Z) has positive direct and significant effect to customer’s
loyalty (Y) with coefficient value is 0.380. It indicates that price perception has the most influence on customer’s loyalty with coefficient value is 0.382.

**Sobel Test**

Sobel test is used to see the influence of intervening variable that is customers’ satisfaction. The sobel test is done by testing the indirect influence of independent variables on dependent variable through intervening variables. Indirect influence of X to Y through Z calculated by multiplying X→ Z with Z→ Y.

To calculate sobel test using formula:

\[
Sab = \sqrt{b^2Sa^2 + a^2Sb^2 + Sa^2Sb^2}
\]

Which:

- a = Association between independent variable and mediator coefficient
- b = Association between mediator coefficient and dependent variable
- Sa = Standard error of a
- Sb = Standard error of b

The data that was displayed on Table 13 will be used to calculate sobel test.

**Table 13 Coefficients For Sobel Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Customers’ satisfaction (Z)</th>
<th>Customer Loyalty (Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>a^2</td>
</tr>
<tr>
<td>X1</td>
<td>0.173</td>
<td>0.030</td>
</tr>
<tr>
<td>X2</td>
<td>0.277</td>
<td>0.077</td>
</tr>
<tr>
<td>X3</td>
<td>0.245</td>
<td>0.060</td>
</tr>
<tr>
<td>Z</td>
<td>0.380</td>
<td>0.144</td>
</tr>
</tbody>
</table>

Source: Processed primary data, 2017

a. Indirect influence of X1 on Y

Sobel test is used to calculate the indirect influence of brand image (X1) on customer’s loyalty (Y) through customers’ satisfaction (Z), which can be done as follows:

\[
Sab = \sqrt{b^2Sa^2 + a^2Sb^2 + Sa^2Sb^2} = 0.0411
\]

To test the indirect influence by comparing t-count and t-table

\[
T_{count} = \frac{0.173 \times 0.380}{0.0411} = 1.599
\]

The result show that brand image variable to customer’s loyalty has t-count 1.599 < 1.971. So it can be concluded that brand image cannot influence customer’s loyalty through customers’ satisfaction.

b. Indirect influence of X2 on Y

Sobel test is used to calculate the indirect influence of price perception (X2) on customer’s loyalty (Y) through customers’ satisfaction (Z), which can be done as follows:
To test the indirect influence by comparing t-count and t-table

\[ T_{count} = \frac{0.245 \times 0.380}{0.0471} = 1.977 \]

The result shows that service quality variable to customer’s loyalty has t-count 1.977 > 1.971. So it can be concluded that customers’ satisfaction can influence service quality and customer’s loyalty.

Path Analysis

Path Analysis is the extension of multiple linear regression, it uses regression analysis to estimate the relationship between variables that are predetermined previously. A direct relationship happens if one variable influences another variable without any intervention. While an indirect relationship happens when there are intervening variables that mediate the relationship between independent variables and dependent variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Path Coefficient</th>
<th>Direct Influence</th>
<th>Indirect Influence</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 on Z</td>
<td>0.173</td>
<td>0.173</td>
<td>0.173</td>
<td>0.173</td>
</tr>
<tr>
<td>X2 on Z</td>
<td>0.277</td>
<td>0.277</td>
<td>0.277</td>
<td>0.277</td>
</tr>
<tr>
<td>X3 on Z</td>
<td>0.245</td>
<td>0.245</td>
<td>0.245</td>
<td>0.245</td>
</tr>
<tr>
<td>X1 on Y</td>
<td>0.296</td>
<td>0.296</td>
<td>0.173 x 0.380 = 0.0658</td>
<td>0.3618</td>
</tr>
<tr>
<td>X2 on Y</td>
<td>0.382</td>
<td>0.382</td>
<td>0.277 x 0.380 = 0.1034</td>
<td>0.4854</td>
</tr>
<tr>
<td>X3 on Y</td>
<td>0.311</td>
<td>0.311</td>
<td>0.245 x 0.380 = 0.0931</td>
<td>0.4041</td>
</tr>
<tr>
<td>Z on Y</td>
<td>0.380</td>
<td>0.380</td>
<td></td>
<td>0.380</td>
</tr>
<tr>
<td>e1</td>
<td>0.878</td>
<td>0.878</td>
<td></td>
<td>0.878</td>
</tr>
<tr>
<td>e2</td>
<td>0.635</td>
<td>0.635</td>
<td></td>
<td>0.6356</td>
</tr>
</tbody>
</table>

Source: Processed primary data, 2017
Based on Table 14, path analysis can be shown in the following formula:
\[
Y = p_{YX1} + p_{YX2} + p_{YX3} + p_{YZ} + e2 \\
Y = 0.3618 + 0.4854 X2 + 0.4041 X3 + 0.380 Z + 0.6356 e2
\]

According to Table 14, it can be explained as follows:

a. Price perception (X2) has positive and significant indirect effect to customer’s loyalty (Y) through customers’ satisfaction (Z). The coefficient value for direct effect is 0.382 while coefficient value for indirect effect is 0.1034 with total value is 0.4854.

b. Service quality (X3) has positive and significant indirect effect to customer’s loyalty (Y) through customers’ satisfaction (Z). The coefficient value for direct effect is 0.311 while coefficient value for indirect effect is 0.0931 with total value is 0.4041.

c. Customers’ satisfaction (Z) has positive and significant direct effect to customer’s loyalty (Y) with coefficient value is 0.380.

The framework of path analysis can be seen in Figure 3.

**Figure 3 Path Framework**

![Figure 3 Path Framework](source: Processed primary data, 2017)

**Discussion and Implication**

Partially brand image has positive insignificant influence on customers’ satisfaction and partially has positive influence on customer’s loyalty. As indicated in research conducted by Syahfudin and Ruswanti (2015) where brand image has great influence on customer’s loyalty in Indonesia Banking Industry. While the result of sobel test on the indirect influence of brand image to customer’s loyalty is t-count 1.599 < 1.971. So it can be concluded that there are no significant influence partially on customer’s loyalty of Pos Express with customers’ satisfaction as intervening variable. It means that brand image cannot indirectly influenced customer’s loyalty through customers’ satisfaction. The finding in this study is very different from research conducted by Peter Halim (2014), where brand image has indirect significant effect on customer’s loyalty through customer trust. In this research customers’ satisfaction cannot be used as interving variable between brand image and customer’s loyalty, it indicates that brand image is not necessarily cause a sense of loyalty on Pos Express.
Partially price perception has positive effect to either customers’ satisfaction or customer’s loyalty. The result of sobel test on indirect influence of price perception to customer’s loyalty is t-count 2.313 > 1.971. So it can be concluded that there are significant influence partially on customer’s loyalty of Pos Express with customers’ satisfaction as intervening variable. It means customers’ satisfaction can be intervening variable between price perception and customer’s loyalty. The result of regression analysis also show that price perception has positive effect on customer’s loyalty. While in research conducted by Ike Kusdyah (2012) price perception has positive insignificant influence on intens to repurchase.

The result of sobel test on indirect influence of service quality to customer’s loyalty is t-count 1.977 > 1.971. So it can be concluded that there are significant influence partially on customer’s loyalty of Pos Express with customers’ satisfaction as intervening variable. It means customers’ satisfaction can connecting service quality and customer’s loyalty. The result in this study is consistent with studies done by Lo Liang Kheng (2010) and Syahfudin and Ruswanti (2015) where satisfaction has intervening effect on the relationship between service quality and customer’s loyalty.

The result of t-test for variable customers’ satisfaction to customer’s loyalty is t-count 4.277. Because t-count > t-table (4.277 > 1.665). It could be concluded that customers’ satisfaction has significant influence partially on customer’s loyalty. This result consistent with studies done by Mohsan (2011) where satisfaction has positive significant relationship with customer’s loyalty. Its contrary to the result of Hayati (2011) research where satisfaction has no significant relationship with customer’s loyalty.

Based on the result of the research findings, there are a few practical implications for Pos Express in Semarang Processing Centre, such as managers should know that there are a relationship between customers’ satisfaction and customer’s loyalty, so it can be used as a reference in applying the company’s policy to maintain and further improve customer’s loyalty. Because customer’s loyalty has an important role in a company, the effort to make customer loyal cannot be done directly, but through several stages. The loyalty cannot be seen from transaction of repurchase, but it can be seen from satisfaction. By making the customer feel satisfied, the customer will believe in the company, that will lead to loyalty.

The managers also should have a good strategy to build Pos Express brand image such as create an integrated marketing strategies. The integrated marketing strategies which can be implemented like advertising, public relations, and communication. The real advertising that have been done by Pos Indonesia is promote Pos Express via Instagram, and set-up a vlog competition to help promoting brand image and/or corporate image to community. Though it’s need more detailed research to know the effectivity and efficiency of chosen marketing strategies.

**Conclusion**

Based on the result of the research about the influence of brand image, price perception, and service quality on customer’s loyalty of Pos Express with customers’ satisfaction as intervening variable, it can be concluded that:

a. Brand image have positive insignificant influence on customers’ satisfaction, and positive significant influence on customer’s loyalty. There is no indirect influence of brand image on customer’s loyalty through customers’ satisfaction.

b. Price perception have positive significant influence on both customers’ satisfaction and customer’s loyalty. There is an indirect influence of price perception on customer’s loyalty through customers’ satisfaction.

c. Service quality have positive significant influence on both customers’ satisfaction and customer’s loyalty. There is an indirect influence of service quality on customer’s loyalty through customers’ satisfaction.

d. Customers’
satisfaction has positive significant influence on customer’s loyalty.
Based on the result of the study, the researcher can provide some related suggestions, as follows:
a. For Semarang Processing Centre
   1. The price perception of Pos Express is very good, the company should maintain the perception is customer mind by offered more competitive price for their products and the conformity with its benefits.
   2. Semarang Processing Centre should increase the service quality by keeping the hall clean and visually appealing. Also to give service training for post officer, so they had a deep knowledge of Pos Express and have quick response to customer complaints.
   3. The managers in Semarang Processing Centre can build several integrated marketing strategies such as advertising, public relations, communication, and service training to be implemented to create and maintain Pos Express brand image.
   4. Semarang Processing Centre should increase the efficiency in delivery time, so the goods can be received at the promised time.
b. For fellow academians
   The study has been carried out on a small scale that could be expanded in more number of samples and in all branch of Pos Indonesia. Future research can integrate some other constructs like trust, price fairness, promotion, and customer lifestyles. Because the items are worthy of further exploration.

References