

THE INFLUENCE OF PRICE AND QUALITY OF DELIVERY SERVICE JNE SUKAPURA BRANCH ON CUSTOMER LOYALTY MEDIATED BY SATISFACTION

<sup>1st</sup> Dwi Muhammad Fauzi Asari, <sup>2nd</sup> Dr. Endang Sugiharti, M.Si

Sekolah Tinggi Ilmu Ekonomi Indonesia, Jakarta

Kmp. Sukapura Jaya No.72, RT:05/010

Sukapura, Cilincing , Jakarta Utara 14140

21officefauzi@gmail.com

**Abstract** - This study aims to examine whether Prices and Services Influence Loyalty Mediated by Customer Satisfaction. Analyzing the effect of price and service on loyalty is mediated by JNE Sukapura branch customer satisfaction.

This research uses a quantitative approach, which is measured using a survey method, the population in this study are people who have used goods delivery services through the Sukapura Branch JNE encountered in the Sukapura region, the period March - April 2019. The sample in this study was 100 respondents . The data in this study use primary and secondary data. Data collection techniques using questionnaires, interviews and literature study. Hypothesis testing using the warpPLS 6.0 path analysis.

The results showed that (1) Price had a significant effect on customer satisfaction, (2) Price had an effect on and significant on customer loyalty, (3) Service had an effect on and significant on customer satisfaction, (4) Service had no effect on customer loyalty, (5) Satisfaction influences customer loyalty, (6) Satisfaction that fully mediates service to loyalty, (7) Satisfaction does not fully mediate the price of influential loyalty

**Keywords:** Price, Service, Customer Satisfaction, Customer Loyalty

**Abstrak**– Penelitian ini bertujuan untuk menguji apakah Harga dan Pelayanan Berpengaruh Terhadap Loyalitas yang Dimediasi Oleh Kepuasan Pelanggan. Menganalisis pengaruh harga dan pelayanan terhadap loyalitas yang dimediasi oleh kepuasan pelanggan JNE cabang Sukapura.

Penelitian ini menggunakan jenis penelitian pendekatan kuantitatif, yang diukur dengan menggunakan metoda survey, populasi dalam penelitian ini adalah orang yang pernah menggunakan jasa pengiriman barang melalui JNE Cabang Sukapura yang ditemui di wilayah Sukapura, periode Maret – April 2019. Sampel dalam penelitian ini sebanyak 100 responden. Data dalam penelitian ini menggunakan data primer dan sekunder. Teknik pengumpulan data menggunakan kuisisioner, wawancara dan studi pustaka. Pengujian hipotesis menggunakan analisis jalur warpPLS 6.0.

Hasil penelitian menunjukkan bahwa (1) Harga berpengaruh dan signifikan terhadap kepuasan pelanggan, (2) Harga berpengaruh dan signifikan terhadap loyalitas pelanggan, (3) Pelayanan berpengaruh dan signifikan terhadap kepuasan pelanggan, (4) Pelayanan tidak berpengaruh terhadap loyalitas pelanggan, (5) Kepuasan berpengaruh terhadap loyalitas pelanggan, (6) Kepuasan yang memediasi secara penuh pelayanan terhadap loyalitas, (7) Kepuasan tidak memediasi secara penuh harga terhadap loyalitas berpengaruh.

**Kata kunci :** Harga, Pelayanan, Kepuasan Pelanggan, Loyalitas Pelanggan

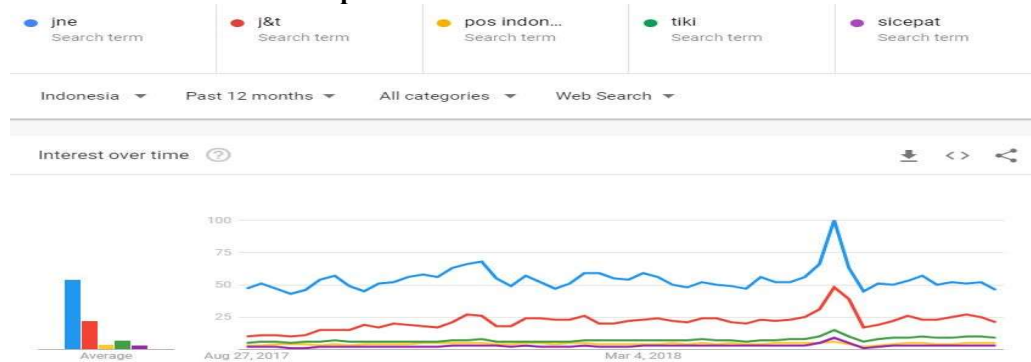
## I. PRELIMINARY

In terms of shipping goods both domestically and abroad, companies providing goods delivery services play an important role. People can send goods easily and quickly both abroad and domestically by using a freight forwarder to send their goods. The need for shipping goods has become the main requirement of every individual. All individuals need fast and safe delivery of goods to ensure that the goods are delivered to the right time and place.

PT JNE is a company engaged in the delivery of goods in Indonesia. PT JNE was founded in 1990. Not only serving domestic goods delivery, PT JNE also provides goods delivery services abroad. PT JNE's extensive network and professional services have helped in product distribution and increased competitiveness in marketing. The high demand for delivery of goods in Indonesia cannot be separated from the intervention of several shipping service providers that are growing in Indonesia. Each freight forwarder has a specific strategy in capturing their market. Provider company

Goods delivery services such as TIKI, JNE, and Pos Indonesi continue to compete for customers with different marketing strategies ([www.jne.co.id](http://www.jne.co.id) 2019). Marketing is a social process where individuals and groups get what they need and want by creating, offering and freely exchanging products and services of value with other parties (Kotler and Keller, 2009).

**Graph 1.1. Service Provider Growth**



Source: [www.trends.google.com](http://www.trends.google.com), 2019

Based on statistics from Google Trends, JNE keywords are the most searched for in North Kalimantan, Riau Islands, Bangka Belitung, Banten, and North Maluku.

These five expeditions are considered the most popular because of the very high intensity of keyword searches on the Google search engine, from people tracking shipments or checking receipts, looking for information on postage rates or the location of the nearest courier outlet. So in this study I will examine the effect of price, service and satisfaction on JNE customer loyalty at the Sukapura branch with the problem formulation and research objectives as follows:

### 1.1. Formulation of the problem

Based on the background of the problems described above, the research problem is formulated: do price, service quality and satisfaction affect customer loyalty. The specifications of this research problem are as follows:

1. Does price affect customer satisfaction at JNE Sukapura branch?
2. Does price affect customer loyalty at JNE Sukapura branch?
3. Does service quality affect customer satisfaction at JNE Sukapura branch?
4. Does service quality affect customer loyalty at JNE Sukapura branch?
5. Does satisfaction affect customer loyalty at JNE Sukapura branch?

6. Does satisfaction mediate the effect of price on customer loyalty at JNE Sukapura branch?
7. Does satisfaction mediate the effect of service quality on customer loyalty at JNE Sukapura branch?

### **1.2. Research purposes**

Based on the background of the problem and the formulation of the problem above, this study aims to:

1. To determine the effect of price on customer satisfaction.
2. To determine the effect of price on customer loyalty.
3. To determine the effect of service quality on customer satisfaction.
4. To determine the effect of service quality on customer loyalty.
5. To determine the effect of satisfaction on customer loyalty.
6. To determine the effect of price on loyalty mediated by customer satisfaction.
7. This is to determine the effect of service quality on loyalty mediated by customer satisfaction.

## **II. LITERATURE REVIEW**

### **2.1. Marketing Services**

Service marketing is an action or performance offered by one party to another that is in principle intangible and does not cause transfer of ownership (Kotler & Keller, 2012). Another opinion related to the notion of service marketing according to Payne (2012), marketing services is a process of preparing, understanding and fulfilling the needs of a specially selected target market by channeling the resources of an organization to meet these needs. So it can be interpreted that services as any action or activity that can be offered by one party to another party, services are intangible and do not produce anything, their production can be linked or not associated with a physical product.

### **2.2. Satisfaction**

The success of a company can be seen from the satisfaction felt by consumers with the products offered, by looking at customer satisfaction the company can find out whether the performance of the company is good and as expected or if it still needs to be improved. Customer satisfaction has become a central concept in business and management discourse. Where all business and non-business organizations are competing to declare it as one of their strategic goals. The development of customer satisfaction research and the awarding of awards for the company's success in achieving the highest score of the national customer satisfaction index (National Customer Satisfaction) also contributed to increasing producer and consumer awareness of the importance of customer satisfaction.

### **2.3. Price**

Talking about price, where price plays an important role in marketing. The price that is too expensive cannot be reached by the target, which in the end will make sales stagnate. Conversely, prices that are too low will make it difficult for the company to cover costs or make a profit. Low prices are sometimes perceived as poor quality. For most marketers, price is an issue that requires careful and careful consideration. As with other elements of the marketing mix (product, distribution and promotion), if used appropriately, price can become a strategic weapon to compete effectively. Prices can be adjusted or changed dramatically depending on what is being achieved. However,

### **2.4. Service quality**

Quality is one of the weapons that companies use in order to win the competition in the market, but almost all companies, especially companies engaged in services, strive to produce the same quality. For this reason, quality is not the only effective way a company

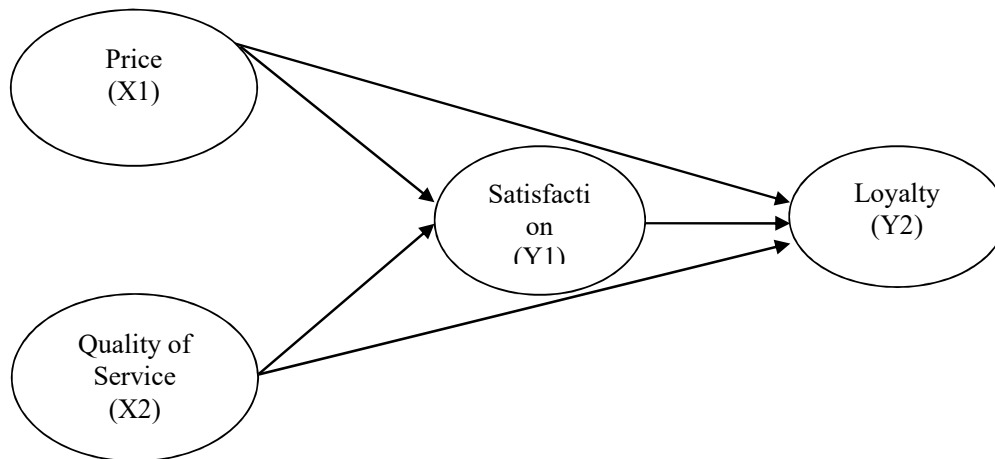
takes to be able to compete with its competitors. According to the American Society for Quality Control, quality is the overall characteristics and characteristics of a product or service in terms of its ability to meet predetermined or latent needs (Lupiyoadi, 2011). Service is any action or activity that one party can offer to another, which is basically intangible and does not result in any ownership (Laksana, 2008). The term quality itself contains various interpretations.

### 2.5. Customer loyalty

With the explanation of some of the variables above, what a company will get is customer loyalty. Loyalty is needed by the company because loyalty is a customer commitment that will continue to stay subscribed or to re-purchase a product or service in the future. Loyalty is something that refers more to the form of behavior of decision-making units to make continuous purchases of a company's goods or services (Sangaji & Sopiah, 2013).

### 2.6. research conceptual framework

Figure 2.1. conceptual framework



## III. RESEARCH METHOD

### 3.1. Research Strategy

This research is included in quantitative research with a survey method, while the strategy used is associative which is a study that aims to determine the effect or relationship between two or more variables (Sugiyono, 2012). The quantitative research method can be defined as a research method based on the philosophy of positivism, which is used to examine a particular population or sample, the sampling technique is generally carried out randomly, data collection uses research instruments, data analysis is quantitative statistics in order to test the hypothesis that has been determined, (Sugiyono, 2012).

### 3.2. Population and Sample

Population is a combination of all elements in the form of events, things or people that have similar characteristics that become the center of a researcher's attention because it is seen as a research universe (Ferdinand, 2014). The target population in this study are people who use JNE delivery services at the Sukapura branch at least once in the Sukapura area

. The criteria for respondents in this study were people who had sent goods through the JNE Sukapura branch at least once, and this person was met in the Sukapura area in the period March - April 2019. The researcher decided to use 100 respondents. This

determination was made because the number of the target population was unknown. As recommended by Ghozali (2012), it states that for PLS the strength of the analysis is based on the portion of the model that has the largest number of respondents at least 30 to 100 cases.

### 3.3. Data Analysis Methods

#### 3.3.1 Descriptive Statistics

Descriptive statistics are statistics used to analyze data by describing the collected data which aims to make generalized or generalized conclusions. The data collected in this study will then be presented in the form of tables, diagrams and graphs related to the descriptions of respondents. The scoring technique used in this study is a maximum score of 5 and a minimum score of 1, then the calculation of the index for the respondents' answers is to use the following formula, (Ferdinand, 2014):

$$\text{Index Value} = [(\% F1 * 1) + (\% F2 * 1) + (\% F3 * 1) + (\% F4 * 1) + (\% F5 * 1)] / 5$$

Analysis of respondents' answers will use the perception index. This perception index will be calculated using a formula.

$$\text{Upper limit of the score range} : (\% F * 5) / 5 = (100 * 5) / 5 = 100$$

$$\text{Lower limit of the score range} : (\% F * 1) / 5 = (100 * 1) / 5 = 20$$

Information:

F1: The frequency of respondents who answered 1 of the scores used in the questionnaire statement list

F2: The frequency of respondents who answered 2 of the scores used in the questionnaire statement list

F3: The frequency of respondents who answered 3 of the scores used in the questionnaire statement list

F4: The frequency of respondents who answered 4 of the scores used in the questionnaire statement list

F5: The frequency of respondents who answered 5 of the scores used in the questionnaire statement list

#### 3.3.2. Partial Least Square (PLS) Path Analysis

In this study, using path analysis Partial Least Squares (PLS) which was run on computer media. PLS was first developed by Wold as a general method for estimating the path model using a latent construct with multiple indicators. The PLS approach is distribution free (it does not assume a certain distribution of data, it can be nominal, category, ordinal, interval and ratio).

PLS is a determining factor for the data analysis method used to measure a certain scale in a small sample size. For predictive purposes the PLS approach is more suitable because with the PLS approach it can be assumed that the variance measure is a useful variance to explain, because the approach to estimating latent variables is considered a linear combination of indicators so as to avoid determining problems and providing a definite definition of the score components. PLS can also be used to confirm a theory and is also used to explain the presence or absence of a relationship between latent variables. Therefore, it focuses more on data and with a limited estimation procedure, the model specification has no effect on parameter estimation (Ghozali, 2014).

The parameter estimates obtained by PLS can be categorized into three. Category *first*, is the weight estimate used to create the latent variable score. The second category reflects the path estimate that connects the latent variable and its indicator block (loading), and the third category relates to means and location parameters (regression constant values) for indicators and latent variables. In this study also used exogenous and endogenous variables as well as mediation.

1. Exogenous Variables

Exogenous variables or also called independent variables are variables that influence or cause changes or the emergence of the dependent variable (Sugiyono, 2012). The exogenous variables in this study are price and service quality.

2. Endogenous Variables

Endogenous variables or also called dependent variables are variables that are influenced or are the result, because of the independent variables (Sugiyono, 2012). Endogon variables in this study are satisfaction and loyalty.

3. Mediation Variables

Mediating variables are variables that theoretically affect the relationship between exogenous and endogenous variables, but cannot be observed and measured. The criteria for mediation according to Sholihin and Ratmono (2013), namely if the path coefficient of value decreases and becomes insignificant, the form of mediation is full mediation. The mediating variable in this study is satisfaction.

The path analysis model for all latent variables in PLS consists of three sets of relationships (Ghozali, 2014):

1. *Outer Model*

*Outer modelis* what specifies the relationship between the latent variable and the indicator or variable that manifests it. The outer model is also called (outer relation or measurement model) which defines how each indicator block relates to its latency variable. There are two measurement models in the outer model, namely the reflective measurement model and the formative measurement model as follows:

1. Reflective measurement model

The reflective model is often called the principal factor model where the covariance measurement of indicators is influenced by the latent construct or reflects variations from the latent construct, reflective indicators must have internal consistency because all indicators are assumed to be all valid indicators that measure a construct so that two indicator measures of equal reliability can be mutually necessary , although the reliability (croanbach alpha) of a construct will be low if there are only a few indicators, the validity of the construct will not change if an indicator is removed (Ghazali, 2014). The validity test is related to measuring the tools used, namely whether the tools used can measure buying interest, if appropriate, the instrument can be said to be a valid instrument (Ferdinand, 2014).

**Table 3.2.** PLS Outer Model Reflective Assessment Criteria

Criteria	Explanation
Evaluation of the Measurement Model Reflective	
<i>Loading factor</i>	The loading factor value must be above 0.70, P-Value.
<i>Composite reability</i>	<i>Composite reability</i> measure internal consistency and the value must be above 0.60.
<i>Average variance extracted</i>	<i>AVE value must be above 0.50.</i>
Discriminant validity	The square root value of the AVE must be greater than the correlation value between latent variables.

Source: Ghozali, 2014

2. Formative measurement model

In this measurement model, it is not assumed that indicators are influenced by a construct but it assumes that all indicators affect a single construct. The direction of the causality relationship flowing from the indicator to the latent construct and the indicator together determines the empirical meaning of the latent construct.

Then there is a possibility that the indicators are mutually correlated, because it is assumed that the indicators are not correlated, so the internal measure of consistency of reliability (Croanbach alpha) is not needed to test the reliability of formative constructs (Ghazali, 2014). Reliability test is a data measurement instrument, the resulting data is reliable or reliable if the instrument consistently produces the same results every time a measurement is made (Ferdinand, 2014). The criteria for determining a formative construct can be seen in the table as follows:

**Table 3.3.** Outer Model Formative PLS Assessment Criteria

Evaluation of the Measurement	
Formative	
Significance of weight value	The estimated values for the formative measurement model should be significant ( $P < 0.05$ ). This significance level was assessed by a bootstrapping procedure.
Multicolonierity	The manifest variable in the block should be tested for multicol. The value of variance inflation factor (VIF) can be used to test this. A VIF value above 10 indicates that there is a multicolore.

Source: Ghozali, 2014

2. Inner Model

*Inner model* defines the relationship between latent variables. The inner model which is also called (inner relation, structural model and substantive theory) describes the relationship between latent variables based on the substantive theory (Ghozali, 214). The following are the criteria for assessing the inner model:

**Table 3.4.** PLS Inner Model Assessment Criteria

Criteria	Explanation
Structural Model Evaluation	
Model fit test (model fit)	In the mode fit test, there are 3 test indices, namely average path coefficient (APC), average R-squared (ARS) and average variance factor (AVIIF. APC and ARS are accepted with the conditions $p\text{-value} < 0.05$ and AVIF $< 5$ .

**Advanced Table 3.4.** PLS Inner Model Assessment Criteria

R2 for endogenous latent variables	R2 results of 0.67, 0.33 and 0.19 for endogenous latent variables in the structural model indicate that the model is "good", "moderate".
Prediction relevance (Q2 and q2)	A value of Q2 above zero provides evidence that the model has predictive relevance (Q2 below zero indicates that the model lacks predictive relevance.

Source: Ghozali, 2014

### 3. Hypothesis test

After conducting various evaluations, both the outer model and the inner model, the next step is to do hypothesis testing. Hypothesis testing is used to explain the direction of the relationship between the independent variables, the dependent variable. This test is used by means of path analysis or the model that has been made. The results of the correlation between constructs were measured by looking at the path coefficient and its level of significance which were then compared with the research hypothesis. To see the results of hypothesis testing together, it can be seen the value of the path coefficient and p-value in the total effects resulting from processing variable data simultaneously.

A hypothesis that can be accepted or must be rejected can be statistically calculated through its significance level. The level of significance used in this study was 5%. If the selected significance level is 5%, the significance level or the confidence level is 0.05 to reject a hypothesis. This means that this research has a 5% probability of making wrong decisions and a 95% probability of making correct decisions.

The following is used as a basis for decision making, namely:

p-value < 0.05; then the null hypothesis (H<sub>0</sub>) is rejected

p-value > 0.05; then the Null Hypothesis (H<sub>0</sub>) is accepted

The hypotheses tested statistically in this study are as follows:

1. H1.0: Price has no effect on customer satisfaction.  
H1.a: Price affects customer satisfaction.
2. H2.0: Price has no effect on customer loyalty.  
H2.a: Price affects customer loyalty.
3. H4.0: Service has no effect on customer satisfaction.  
H4.a: Service affects customer satisfaction.
4. H5.0: Service has no effect on customer loyalty.  
H5.a: Service affects customer loyalty.
5. H6.0: Satisfaction has no effect on customer loyalty.  
H6.a: Satisfaction affects customer loyalty.
6. H6.0: Satisfaction does not mediate the effect of price on customer loyalty.  
H6.a: Satisfaction mediates the effect of price on customer loyalty.
7. H7.0: Satisfaction does not mediate the effect of service on customer loyalty.  
H7.a: Satisfaction mediates the effect of service on customer loyalty.

## IV. RESULTS AND DISCUSSION

### 4.1. Description of Research Object

JNE is a company engaged in the field delivery and logistics which is headquartered at Jakarta, Indonesia. Its official name is Tiki Path Nugraha Ekakurir (Tiki JNE). PT Tiki Jalur Nugraha Ekakurir was established on June/November 26th 1990 by H. Soeprapto Suparno. This company was started as a division of PT Citra van Titipan Kilat (TiKi) to take care of an international courier network. Starting with eight people and a capital of 100 million rupiah, JNE started its business activities that were centered on handling activities customs, import shipments of goods, documents and their delivery from abroad to Indonesia.

In the year of 1991, JNE expanded its international network by joining as a member of an association of courier companies from several countries Asia (Acca) are tooling in Hong Kong which then gave JNE the opportunity to develop the delivery area to the rest of the world. Due to competition in the domestic market, JNE is also concentrating on expanding its domestic network. With TiKi's domestic network and its name, JNE has an advantage over the competition in the domestic market. JNE also expands its services with logistics and distribution.

Over the years TiKi and JNE have developed and become two companies that have their own directions. Because of this the two companies became rivals. Finally, JNE became a



self-contained company with its own management. JNE created its own logo that differentiates it from TiKi. JNE bought the building in 1999 and established the JNE Operations Sorting Center. Later in the year 2004 JNE bought the building to be used as the Head Office. Both are in Jakarta. Currently the head office of PT Tiki JNE is located at Tomang Raya No. 9 & 11, West Jakarta.

**4.2. Respondent Description**

Respondents in this study were 100 users of the JNE Sukapura branch who had made at least 1 delivery. To see research respondents based on age, gender and occupation, it can be seen in the following table and figure.

**Table 4.1** Demographic Characteristics of Respondents

No.	Respondents Based on	Classification	Total Frequency
1.	Gender	Male	23
		Women	77
		<b>Total</b>	100
2.	Age	17 s / d 20 years	8
		21 to 25 years	76
		26 s / d 30 years	16
		<b>Total</b>	100
3.	Profession	Employees	16
		TNI / POLRI	3
		Entrepreneur	38
		College student	41
		Student	2
		<b>Total</b>	100

*Data processed, 2019*

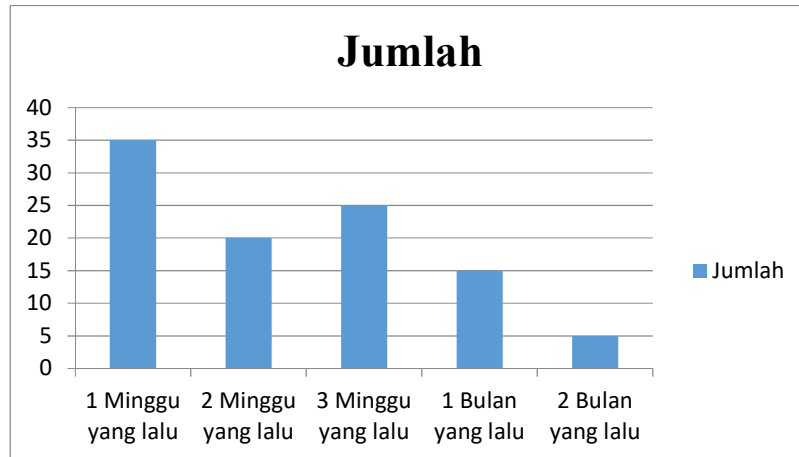
In table 4.1. The above shows that the 100 respondents I met at the JNE Sukapura branch had male and female sex, as well as different ages and occupations.

**4.2.1 Respondent Description Based on Lastly, using JNE services**

Based on this research, it is known that the number of respondent data using JNE services in the period March - April 2019 at the Sukapura branch, namely 1 week ago as many as 35 people, 2 weeks ago as many as 20 people, 3 weeks ago as many as 25 people, 1 month ago

as many as 15 people and 2 months ago as many as 5 people. The latest data using respondents' JNE services can be seen in the pie chart as follows:

**Diagram 4.1** Last Respondent Uses JNE Sukapura Branch Services



Data processed, 2019

#### 4.2.2 Description of Respondents by Type of Delivery

Based on this research, it is known that the number of types of delivery used by customers such as Super Speed as many as 4 people, Pesona as many as 10 people, YES as many as 21 people, REG as many as 49 people, OKE as many as 9 people, JNE Pick Up Point as many as 7 people.

The service data purchased by respondents can be seen in the table as follows:

**Table 4.2** Respondents based on the type of service purchased

Type of Service	Number of frequencies
<i>Super Speed</i>	4
Charm	10
YES	21
REG	49
OKAY	9
<i>JNE Pick Up Point</i>	7
<b>Total</b>	<b>100</b>

Data processed, 2019

#### 4.3. Analysis of Research Data

##### 4.3.1. Measurement Model Reflective Indicator

*Outer modelis* what specifies the relationship between the latent variable and the indicator or variable that manifests it (Ghozali, 2014). The reflective model is often called the principal factor model where the covariance of the indicator measurement is influenced by the latent construct or reflects the variation of the latent construct. The following is an analysis of the reliability test and validity of the reflective indicators. In this study, the results of data processing from each statement through the WarpPLS 6.0 test with the loading factor and p-value for the reflective indicators are shown in table 4.8 below:

**Table 4.7** Loading Factor Reflective Indicators

Indocator	Loading Value	p-Value
HG1	0.079	<0.001
HG2	0.124	<0.001
HG3	0.199	0.006
HG4	0.084	<0.001

PL1	0.073	<0.001
PL2	0.074	<0.001
PL3	0.071	<0.001
PL4	0.093	<0.001
PL5	0.065	<0.001
PL6	0.076	<0.001
PL7	0.121	0.011
PL8	0.080	<0.001
PL9	0.073	<0.001
PL12	0.062	<0.001
PL13	0.059	<0.001

Source: Output processed by Warppls 6.0, 2019

Reflective indicators are declared valid if the p-value <0.05 (Ghozali, 2014). Based on table 4.7 above, the results of data processing show that there are two indicators that have a p-value > 0.05, so that it can be stated that the reflective indicator is declared statistically invalid. For the reliability test, apart from testing the loading factor, the reliability test can also be seen from the composite reliability and AVE values.

**Table 4.8** Value of Composite Reliability and AVE

	Price	Service	Fast	Loyal
Composite reliability coefficients	0.786	0.924	0.822	0.830

Source: Output processed by Warppls 6.0, 2019

Composite reliability measures internal consistency and the value must be above 0.60. So based on table 4.9 the value of the composite reliability construct is greater than > 0.6 (Ghozali, 2014), which means that the construct is quite reliable.

**Table 4.9.** Correlations among latent variables and errors

Price	<b>(0.698)</b>			
Service	0.830	<b>(0.733)</b>		
Price	0.706	0.730	<b>(0.734)</b>	<b>0.862</b>
Satisfaction	0.859	0.871	0.862	(0.746)

Source: WarpPLS 6.0 output processed, (2019)

Based on the table above, AVE > 0.5 (Ghozali, 2014). Then the table above shows that the reflective indicators in this study are stated to be realistic. Correlations among latent variables and errors to process reflective indicators, where the reflective indicators on the correlation test among latent variables and errors include price and satisfaction variables, in this table it can be seen that the price and satisfaction constructs show a greater value than other variables (thick construct). if the construct correlation with the measurement is greater than the other construct measures, then the latency predicts the indicators better than the others in order to test whether the latent variables differ from one another.

#### 4.3.2. Measurement Model Formative Indicators

In this measurement model, it is not assumed that indicators are influenced by constructs but assumes that all indicators affect a single construct (Ghozali, 2014). In this study, the formative indicator measurement model can be seen in the significance of weight calculation of the weight value in this study used as a combination of latent variables from

each of the indicators, the weight value can be said to be significant if the p-value <0.05. It can be seen in table 4:10 below to see the p-value and VIF used to evaluate formative latent variables.

1. Significant of Weight

**Table 4.10.** Value Indicator Weight

Item	Weight Value	P value	VIF
KP1	0.092	0.001	1,681
KP2	0.075	<0.001	2,441
KP3	0.056	<0.001	2,636
KP4	0.079	<0.001	1,852
LY1	0.042	<0.001	1,435
LY2	0.073	<0.001	1,161
LY3	0.045	<0.001	2,061
KP1	0.092	0.001	1,681
KP2	0.075	<0.001	2,441
KP3	0.056	<0.001	2,636
KP4	0.079	<0.001	1,852
LY1	0.042	<0.001	1,435

Source: Output processed by Warppls 6.0, 2019

Based on table 4.10, all indicators of weight value have met the criteria of more than <0.05 and have a VIF value (Gozali, 2014). In this study, the manifest variable did not have multicollinearity symptoms with the VIF value not between five and ten (Ghozali, 2014).

2. Multicollinearity

**Table 4.11.** Multicollinearity Value

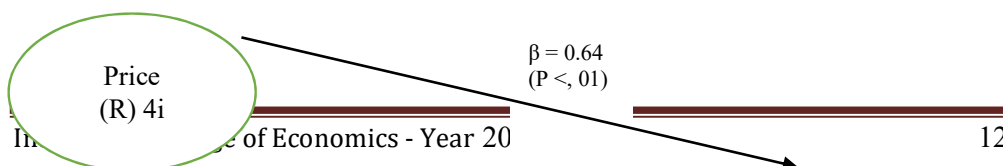
Item	VIF
KL1	1,681
KL2	2,441
KL3	2,636
KL4	1,852
KL5	1,435
KL6	1,161
KL7	2,061
KL8	1,681
KL9	2,441
KL10	2,636
KL11	1,852
KL12	1,435

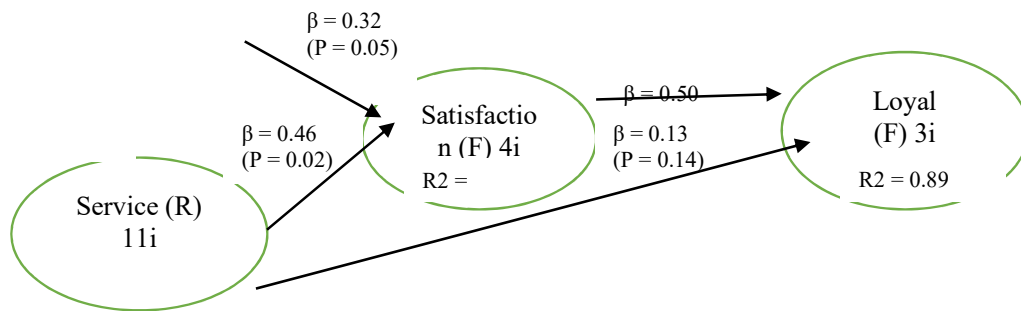
Source: Warppls data output processed, 2019

The table above shows that the VIF value for all indicators below 10 and it can be indicated that there is no multicollinearity.

**4.5. Structural Model**

**Figure 4.1** Structural Model





Source: Output Processed WarpPLS 6.0, 2019

Based on the output results above the r-square value can be used to measure the effect of certain independent latent variables on latent variables dependent whether it has a substantive effect, and to test models that have similarities with the test index data such as the Average Path Coefficient (APC), Average R-square (ARS), Average Variance Inflation Factor (AVIF) using APC and ARS criteria which validate the model Overall, goodness of fit (GOF) can be used, which is a single measurement used to validate the inner model (Tenenhaus et al, 2004). According to WarpPLS 6.0, the GOF criteria in this study were small  $\geq 0.1$ , medium  $\geq 0.25$ , large  $\geq 0.36$ .

**Table 4.12.** Index Fit Model

	Index	P-value
APC	0.442	<0.001
ARS	0.717	<0.001
AARS	0.711	<0.001
AVIF	5,628, acceptable IF $\leq 5$ , ideally $\leq 33$	
GOF	0.616	

Source: Output processed by Warpls 6.0, 2019

The table above shows that APC has an index of 0.442 with a p-value of <0.001, an ARS value of 0.717 with a p-value of <0.001, an AARS value of 0.711, while the AVIF value has an index of 5.628 > 5, while GOF has an index value of 0.616.

**Table 4.13.** R-squared contributions

	Price	Service	Satisfaction
Service	0.690		
Satisfaction	0.226	0.339	
Loyalty	0.562	-0.100	0.433

Source: WarpPLS 6.0 output processed, (2019)

Based on model 4.1, it can be seen that the coefficient of determination (R2) for the satisfaction variable is 0.56, which means that customer satisfaction in this study is 56%, the variation is influenced by price and service, with each contribution to the price of 23% and the price of 34%. While the coefficient of determination of the loyalty variable is 0.89, which means that JNE customer loyalty in this study is 89%, the variations are influenced by price, service and loyalty, where the most contributing variable is loyalty, which is 89%.

In addition to R2, this research model was also evaluated by looking at the predictive relevance of Q2 for the construct model. Q2 measures some of the observed values generated by the model and also its parameter estimates. The quantity of Q2 has a range of  $0 < Q2 < 1$ , where if the value is closer to 1, it means that the model is getting better. The magnitude of Q2 is equivalent to the total coefficient of determination in the path analysis. The value of  $Q2 > 0$  indicates that the model has predictive relevance, and vice versa if the value of  $Q2 < 0$  indicates that the model has less predictive relevance (Chin,

1998).

Calculation of Q2 is done with the formula (Chin, 1998) as follows:

$$\begin{aligned} Q2 &= 1 - \{(1-R12) (1-R22)\} \\ &= 1 - \{(1-0,562) (1-0,892)\} \\ &= 1 - \{(0.44) (0.11)\} \\ &= 1-0.0484 \\ &= 0.9516 \\ &= 95.16\% \end{aligned}$$

From the results of the calculation of Q2 above, it can be seen that the level of clarity of the model in this study is related to the data that has been taken from respondents by 95.16%, based on Chin (1998) theory states that where Q2 approaches number 1, the model is better, based on the results of Q2 in this study amounted to 95.16%. The value obtained shows that 95.16% of the information contained can be explained by the model, while 4.48% is explained by other variables that are not yet in the model, as well as the element of error.

#### 4.4. Hypothesis testing

Hypothesis testing is used to explain the direction of the relationship between exogenous and endogenous variables. A hypothesis can be accepted or rejected can be statistically significant. To evaluate the structural relationship between latent variables, hypothesis testing should be carried out on the path coefficient between variables by comparing the p-value with alpha (0.05).

The basis for decision making, namely:

$$\begin{aligned} p\text{-value} > 0.05, & \text{ the hypothesis is accepted} \\ p\text{-value} < 0.05, & \text{ the hypothesis is rejected} \end{aligned}$$

The amount of p-value is obtained from the output at WarpPLS 6.0, This test is done to prove the truth with a study consisting of eight hypotheses as follows:

1. Hypothesis Test 1

H1: Price affects customer satisfaction.

Based on the results of data processing listed in Figure 4.1 the path coefficient between price and customer satisfaction JNE gets a positive coefficient value, this shows that the price has a positive direct impact on JNE customer satisfaction, which means that the better the price given, the customer will tend to feel satisfied using the service JNE. price contributes to satisfaction by 0.226 and is significant because the p-value is not more than 0.05.

2. Hypothesis Test 2

H2: Price affects customer loyalty.

The results of data processing as shown in Figure 4.1 obtained a positive path coefficient between price and loyalty, with a p-value value <0.05, the coefficient is significant, this shows that the price has a positive direct impact on JNE customer loyalty, which means that the better the price offered to customers, the more loyal it will be to use JNE's shipping services. Price contributes to satisfaction by 0.26 and is significant because the p-value is <0.05.

3. Hypothesis Test 3

H3: Service quality affects satisfaction.

Based on the results of the data processing shown in Figure 4.1, the path coefficient between service and JNE customer satisfaction gets a positive coefficient value, this indicates that service has a positive direct impact on JNE customer satisfaction, which means that the better the service provided, the more satisfied the customer will be with JNE customer satisfaction. JNE services and is declared significant because the p-value is <0.05.

4. Hypothesis Test 4

H4: Service quality affects loyalty.

The results of data processing as shown in Figure 4.1 show a positive path coefficient between service quality and customer loyalty. However, because the p-value is  $> 0.05$ , the coefficient is not significant. The null hypothesis states that JNE service quality has an effect on customer loyalty being rejected. The quality of JNE services does not have an impact on customer loyalty of JNE service users.

5. Hypothesis Test 5

H5: Satisfaction has an effect on loyalty.

Based on the results of data processing listed in Figure 4.1, the path coefficient between satisfaction with JNE customer loyalty gets a positive coefficient value, this indicates that satisfaction has a positive direct impact on JNE customer loyalty, which means that the more satisfied customers feel about JNE, eating will create a feeling of being more loyal to JNE. using JNE services and can be declared significant because the p-value is  $< 0.05$ .

6. Hypothesis Test 6

H6: Satisfaction mediates the effect of price on loyalty

**Table 4.14** Direct Effect & Indirect

	Direct	Indirect
Satisfaction	P	$\beta_1 \times \beta_2 = 0.160$
	P $< 0.001$	P $< 0.01$

Source: WarpPLS 6.0 output processed, (2019)

Based on the table above, it shows that the effect of customer satisfaction is the only factor that mediates price on loyalty.

7. Hypothesis Test 7

H7: Satisfaction mediates service to loyalty

**Table 4.15** Direct Effect & Indirect

	Direct	Indirect
Satisfaction	P	$\beta_1 \times \beta_2 = 0.230$
	P $< 0.001$	P $< 0.01$

Source: WarpPLS 6.0 output processed, (2019)

Based on the table above shows that the effect of customer satisfaction does not mediate service quality on customer loyalty.

**Table 4.16** Summary of Hypothesis Test Results

Hypothesis	Conclusion
H1: Price affects customer satisfaction	Be accepted
H2: Price affects customer loyalty	Be accepted
H3: Service affects customer satisfaction	Be accepted
H4: Service affects customer loyalty.	Rejected
H5: Satisfaction affects customer loyalty.	Be accepted
H6: Satisfaction mediates price on customer loyalty.	Be accepted
H7: Satisfaction does not mediate service to customer loyalty.	Rejected

Source: Processed data, (2019)

## V. CONCLUSIONS AND SUGGESTIONS

### 5.1. Conclusion

Based on the results of data processing, several conclusions can be drawn:

1. Price affects satisfaction. The delivery services provided by JNE get a good price perception in the eyes of customers, where customers become satisfied with the services provided.
2. Price affects loyalty. JNE delivery services have a price perception that matches customer expectations, which makes customers loyal to using JNE shipping services.
3. Service affects loyalty. Customers who use JNE services consider the services provided, where good service creates a satisfied welcome to the customer.
4. Service has no effect on loyalty. Even though respondents are satisfied with the services provided by JNE, they do not feel that they should go back to using JNE services.
5. Satisfaction affects loyalty. The services provided by JNE provide satisfaction to customers, which keeps customers loyal to using JNE services.
6. There is an influence on satisfaction that mediates price on customer loyalty. Price turns out to have an effect on JNE customer satisfaction and becomes a loyal factor of a consumer in choosing JNE services. And it can be seen statistically significant with p-value <0.05.
7. There is an influence on satisfaction that mediates service on customer loyalty. There is an effect of service variation on customer loyalty mediated by satisfaction. And it can be seen statistically significant with p-value <0.05.

### 5.2. Suggestion

Based on the results of these conclusions, the means of this study are as follows:

1. Price  
The highest loading on the price variable is regarding "the affordability of JNE service delivery prices". Which means that the price given by JNE is the same as customer expectations. Researcher's suggestion is for JNE to maintain prices according to customer expectations. So that it can maintain customer loyalty to use JNE shipping services until the future.
2. Service  
The highest loading on the service variable is regarding "reliability in technical services". Which means that JNE officers have provided reliable service in serving every customer. So the researcher's suggestion is that in the future, if JNE is going to recruit employees, it should be given sufficient training so that JNE's image
3. Satisfaction  
The highest loading on the service variable is regarding "re-purchase". Which means that JNE is considered capable of providing prices that make customers more satisfied than competitors. So the researcher's suggestion is that JNE can continue to maintain this so that customers are always satisfied with what JNE provides to customers, thus making customers always make repeat purchases at JNE.
4. Loyalty  
The highest loading on the loyalty variable is regarding "recommending JNE". This means that JNE customers show a willingness to recommend to family, friends or other people to use JNE services. So the researcher's suggestion is that JNE can always create something that is always more than competitors so that the name JNE will always be the best to recommend to everyone.

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