

The Effect of Punctuality of Delivery of Goods and Quality of Courier Services on the Satisfaction of Customer at JNE Express in the Covid-19 Pandemic

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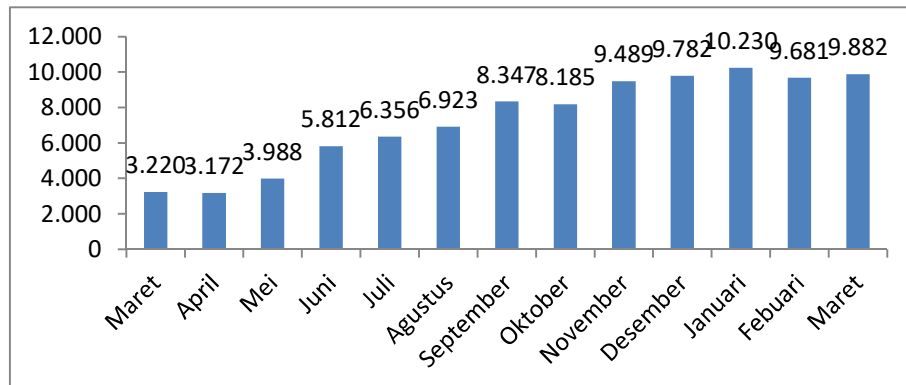
Abstract: This research is quantitative research aims to find out the effect of Punctuality of Delivery of Goods and Quality of Courier Services on the Satisfaction of Customer at JNE Express in the Covid-19 Pandemic. The population in this study was JNE Express service users and samples were taken as many as 100 respondents, with random sampling method. Data collection was done through the dissemination of questionnaires. The analysis technique used was simple regression analysis and multiple t and F tests with SPSS 25 software. The results of this study shows that The Timeliness of Delivery of Goods has a significant and positive effect on Customer Satisfaction. The Quality of Courier Service services has a significant and positive effect on Customer Satisfaction. The result of F test between the two independent variables has a significant effect and has contributed to dependent variables.

Keywords: Punctuality of delivery of goods, Quality of Courier Services, Satisfaction of Customer, JNE Express, Covid-19 Pandemic

Introduction (Include Literature Review)

The Covid-19 pandemic, which first occurred in Wuhan, China in November 2019 resulted in rapid spread to various countries and was immediately confirmed as a world pandemic by the WHO (World Health Organization) in March 2020. Coronavirus first appeared in Indonesia in March 2020, which means it has been spreading in Indonesia for a year. Due to the Covid-19 pandemic, all activities must be restricted and some must be stopped. All human movement is limited by distance and must always follow the health protocols applicable in their respective countries.

During the Covid-19 pandemic, the provider of goods delivery services is very helpful to the public to keep the movement of goods. With the increasing number of online purchases in the form of packages, documents, and parcels, it is necessary to provide effective and efficient transportation services. The data of the number of users of JNE Express delivery services are as follows:

Figure 1**Data number of JNE Express Delivery Service Users March 2020-March 2021**

Source : JNE Express

Based on the data above, the number of users of delivery services is volatile every month when compared between March 2020 to March 2021. The month that had decreased number of users is in April, when the Covid 19 pandemic entered Indonesia and became an obstacle to the distribution of goods. This makes PT. JNE Express strived to make the next month better.

In this study, researchers used JNE Express delivery services because JNE Express delivery services have several phenomena need to be analysed, such as punctuality of delivery of goods, complaints of delays in delivery of packages that exceed predetermined estimates of time. The quality of courier service is also one of the phenomena. It has something to do with packahe quality of the product. The package received in an imperfect state at the beginning of delivery causes the failure of the courier in handling the goods during delivery. Therefore, if the delivery is on time and the quality of service is good customers will be satisfied with JNE Express service.

Punctuality of Delivery of Goods

According to (Handoko, 2010), in the book how to easily build an online store blog, delivery timeliness is the period of time in which from the beginning the customer orders the product until the product arrives in the hands of the customer. There are 3 indicators expressed by Handoko for the timeliness of delivery namely, accuracy in the delivery service of goods, accuracy in determining the price, and accuracy in determining the time.

In order to keep the timely performance itself under control, it is necessary to establish standards or key performance indicators (KPIs) to ensure the effectiveness, the efficiency, and the productivity of services related to efforts or measures to meet the needs of people or organizations. (Dewi et al., n.d.)

Quality of Service

According to (Fandy Tjiptono dan Gregorius Chandra, 2016), service quality is a measuring of how high the level of service that can be provided to adjust customer expectations. The 5 indicators expressed by Tjiptono and Gregorius Chandra for the quality of service are reliability, responsiveness, assurance, empathy, and physical evidence.

The quality of service can be seen from the perspective of the company as well as customers. From a company perspective, they can provide services up to a certain level of quality but consumers must be willing and able to pay the associated prices. (Sakyi, 2020)

Satisfaction of Customer

According to (Tjiptono, 2015), satisfaction of customer is a core element in modern marketing thinking and practices, the feeling of pleasure or disappointment from the work performance of a service / product. According to (Tjiptono, 2014) there are 3 indicators for satisfaction of customer, namely: conformity of expectations, interest in visiting again (repurchase intent) and willingness to recommend.

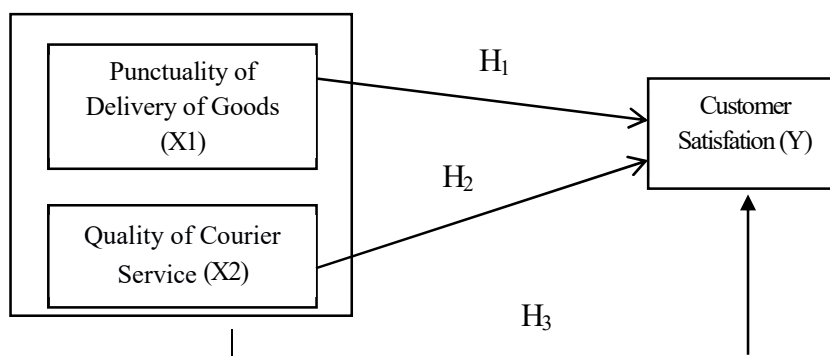
Covid - 19

Covid-19 is a disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARSCOV-2). The disease has spread worldwide. On January 30, 2020 World Health Organization declared the COVID-19 outbreak a global emergency. (Nicola et al., 2020)

Framework dan Hypothesis

The frame of mind of this study is in the picture below:

Figure 2



Source: Data Processed By Researchers

According to Sugiyono(, 2015) hypothesis is a temporary answer to the formulation of research problems, where the formulation of research problems can be expressed in the form of sentences. Based on the frame of thought that has been compiled, there are hypothetical results, among others:

a. Hypothesis I

H_1 = There is an influence of the timeliness of delivery of goods to the satisfaction of customers at JNE Express in the Covid-19 pandemic.

b. Hypothesis II

H_2 = There is an influence of the quality of courier services to the satisfaction of customers at JNE Express in the Covid-19 pandemic.

c. Hypothesis III

H_3 = There is an influence of the timeliness of delivery of goods and the quality of courier services to the satisfaction of customers at JNE Express in the Covid-19 pandemic.

Method

This research was conducted using a quantitative approach. Quantitative research is the process of finding knowledge that uses information in the form of numbers as a tool to analyze the phenomena in the research. The type of research used is descriptive quantitative. The population according to Sugiyono(2015) is a generalization area consisting of an object / subject that has certain qualities and characteristics and set by researchers to be researched and drawn conclusions. The population in the study is users of delivery services at PT. JNE Express in March 2020 until March 2021 during the Covid 19 pandemic as many as 95,067 people. The Sample according to Sugiyono (2015) is part of the number and characteristics possessed by the population. In this study researchers narrowed the population of 95,067 people by calculating the sample size using slovin technique with an error rate of 10% . According to Sugiyono (2015) the following Slovin formulas are:

$$n = \frac{N}{1 + Ne^2}$$

Where :

n = Sample size

N = Population size

e = Error tolerance limit 10%

Based on the explanation above, that by using slovin formula, sample size can be calculated as follows:

$$n = \frac{95.067}{1 + 95.067 (0.10)^2} = 99.9 \text{ Rounded } 100$$

So, the minimum number of samples that can be used in this study is 100 respondents. The sampling technique of this study was probability sampling, namely simple random sampling technique that is sampling members of the population conducted randomly regardless of the strata in the population.

According to Sugiyono (2015) questionnaire is one of the data collection techniques by which the researchers provide a set of questions or written statements to be answered by respondents. The respondents of this research were users of PT services. JNE Express used as a primary data source by researchers. The secondary data sources in this study are books, literature, articles and sites on the internet related to the research conducted. The scale used in this research is the Likert scale.

Discussion dan Result

Validity Test

Validity test is a test used to show the extent to which the instrument tested in a study is valid or not. In this study with $\alpha = 0.05$, if $r \text{ counts} > r \text{ table}$ then it is declared valid, but if otherwise it is declared the statement item is invalid.

a. Validity Test Punctuality of Delivery of Goods (X_1)

Based on the data that has been processed, it is known that the validity test of the Variable Punctuality instrument of Delivery of Goods (X_1) ranging from question No. 1 to question No. 10 is declared VALID because $r \text{ count} > r \text{ table}$.

b. Validity Test Quality of Courier Service (X_2)

Based on the processed data, it is known that from all question items on the validity test for Variable Quality Courier Service Service (X_2) is declared VALID because the whole query has a value of $r \text{ Count} > r \text{ Table}$.

c. Validity Test Satisfaction of Customer (Y)

Based on the processed data, it is known that from all question items on the validity test for Satisfaction of Customer Variable (Y) is declared VALID because the whole query has a value of $r \text{ Count} > r \text{ Table}$.

Reliability Test

A reliability test is a test that states how much a test consistently measures a measured goal. A coefficient can be declared if the value of Cronbach's Alpha is greater than 0.60. Reliability test results are presented in the following table:

Table 1

NO.	VARIABLE	<i>Cronbach's Alpha</i>	INFORMATION
1.	Punctuality of Delivery of Goods (X1)	0,890	<i>Reliable</i>
2.	Quality of Courier Service (X2)	0,923	<i>Reliable</i>
3.	Satisfaction of Customer (Y)	0,920	<i>Reliable</i>

Source : Processed Data by Researchers Through SPSS 25 (2021)

Based on the reliability test results of the table above, it shows that each variable has a value of > 0.60 so that each variable from the questionnaire is reliable.

Multiple Linear Regression Analysis

This analysis is done to determine the effect of independent variables on dependent variables, based on the value of independent variables. The results are presented in the following table:

Table 2**Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	8.173	2.210		3.698	.000
Punctuality of Delivery of Goods	.371	.076	.411	4.880	.000
Quality of Courier Service	.431	.076	.479	5.684	.000

a. Dependent Variable: Satisfaction of Customer

Source : Processed Data by Researchers Through SPSS 25 (2021)

$$Y = 6,499 + 0,365X_1 + 0,481X_2 + e$$

In which :

X1 : Punctuality of Delivery of Goods

Y : Satisfaction of Customer

X2 : Quality of Courier Service

e : Residual Value

Based on the results in the table above, the beta value is positive. It is then expressed to have a significant effect on dependent variables. Variables X1 and X2 can be expressed to have a significant effect on Y.

Coefficient of Determination Analysis (R^2)

Coefficient of determination is used to determine how much influence independent variables have on dependent variables. The results of the analysis are presented in the following table:

Table 3

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.831 ^a	.691	.684	2.468	2.103

a. Predictors: (Constant), Quality of Courier Service, Punctuality of Delivery of Goods

b. Dependent Variable: Satisfaction of Customer

Source : Processed Data by Researchers Through SPSS 25 (2021)

Based on the results in the table above, it shows the value of $R = 0.831$ which means there is a very strong level of relationship between The Timeliness of Delivery of Goods and the Quality of Courier Services to Customer Satisfaction. The factors that affect Customer Satisfaction are indicated in the coefficient of determination (R^2) of 0.691. This means the Punctuality of Delivery of Goods (X1) and The Quality of Courier Services (X2) has a contribution of 69.1% to Customer Satisfaction (Y), and the remaining 30.9% is influenced by other factors outside of this study.

Hypothesis Test

If the sig value < 0.05 then H_0 is rejected and H_1 is accepted or by comparing the result of $t_{\text{Count}} > t_{\text{Table}}$, and also by comparing $F_{\text{Count}} > F_{\text{table}}$, then H_0 is rejected and H_1 is accepted. Can be seen in the table below:

Test t

a. Hypothesis I

H_1 = There is an influence on the timeliness of delivery of goods to the satisfaction of customers at JNE Express in the Covid-19 pandemic.

Table 4

Model	Coefficients ^a		Standardized Coefficients	t	Sig.
	Unstandardized Coefficients				
	B	Std. Error			
1 (Constant)	12.931	2.349		5.504	.000
Punctuality of Delivery of Goods	.692	.059	.767	11.821	.000

a. Dependent Variable: Satisfaction of Customer

Source : Processed Data by Researchers Through SPSS 25 (2021)

Test results of partial test for variable Punctuality of Delivery of Goods (X1) with Customer Satisfaction (Y) using gis value. $0.000 < \alpha (0.05)$, where t Count values $11.821 > \text{table } t (0.05;98) 1.66055$, then H0 is rejected and H1 is accepted.

b. Hypothesis II

H₂ = There is an influence on the quality of courier services to the satisfaction of customers at JNE Express in the Covid-19 pandemic.

Table 5

Coefficients ^a					
Unstandardized Coefficients			Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	11.781	2.312		5.095	.000
Quality of Service	.705	.056	.784	12.508	.000

a. Dependent Variable: Satisfaction of Customer

Source : Processed Data by Researchers Through SPSS 25 (2021)

Partial test results for variable Quality Courier Service Service (X2) with Customer Satisfaction (Y) using gis value. $0.000 < \alpha (0.05)$, where calculated t value $12.508 > \text{t Table } (0.05;98) 1.66055$, then H0 is rejected and H1 is accepted, this indicates that the Variable Quality of Courier Service Service (X2) has a significant and positive effect on customer satisfaction variable (Y).

c. Hypothesis III

H_3 = There is an influence on the timeliness of delivery of goods and the quality of courier services to the satisfaction of customers at JNE Express in the Covid-19 pandemic.

F Test

This test is used to determine the effect of independent variables on dependent variables. To obtain the calculation results this analysis uses the SPSS 25 for Windows program. The F test results are presented in the following table:

Table 6**ANOVA^a**

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1320.077	2	660.038	108.345	.000 ^b
	Residual	590.923	97	6.092		
	Total	1911.000	99			

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), Quality of Courier Service, Punctuality of Delivery of Goods

Source : Processed Data by Researchers Through SPSS 25 (2021)

Using the table above, test result F equals F count (108.345) > F table (2; 98; 0.05) is 3.09, with a significant value of $< \alpha$ (0.05) then H_0 is rejected and H_1 is accepted because it proves the Punctuality of Delivery of Goods and Quality of Courier Services together has a significant influence on satisfaction of Customer.

Conclusion dan Suggestions

From the result t Calculate variable Punctuality of Delivery of Goods (X1) to Customer Satisfaction (Y) obtained t value Count 141.821 > t Table (0.05;98) 1.66055, then H_0 rejected and H_1 accepted. This means that the variable Punctuality of Delivery of Goods (X1) has a significant and positive effect on Customer Satisfaction (Y).

From the results of t Calculate variable Quality of Courier Service Services (X2) to Customer Satisfaction (Y) t Calculate 12,508 > t Table (0,05;98) 1.66055, then H_0 rejected and H_1 accepted, meaning the variable Quality of Courier Service Services (X2) is significantly and positively affect Customer Satisfaction (Y).

From the result of F Calculate variable Punctuality of Delivery of Goods (X1) and Quality of Courier Service (X2) to Customer Satisfaction (Y) F count (108,345) > F table (2; 98; 0.05) is 3.09, with a significant value of $< \alpha$ (0.05) then H_0 was rejected and H_a accepted. This means that these two independent variables have a significant effect and contribute to dependent variables.

Suggestions

To improve the Punctuality of Delivery Goods to JNE Express, it is recommended to pay attention again when sending goods so that there is no complaint for delays in delivery of packages that exceed the predetermined estimates and pay attention when inputting the customer's address so that the package delivered to the right destination in order to achieve customer satisfaction. As for improving the Quality of Courier Services at JNE Express, It is recommended that JNE Express employees / couriers pay more attention when delivering packages to customers to avoid the damage to goods when the package is received in order to achieve customer satisfaction.

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