Effect Of Online Tracking System And Delivery Timeliness On Customer Satisfaction (Case Study On J & T Express Sampit)

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Abstract.

The title of this study is the effect of Online tracking system and Ketepatan delivery time on customer satisfaction (Case Study on J&T Express Sampit). This study was conducted at J & T Express Sampit which is located at Jalan MT. Haryono No. 095, Mentawa Baru Hulu, District. Mentawa Baru Ketapang, East Kotawaringin Regency, Central Kalimantan. This study was conducted on customers who use the services of J & T Express Sampit with accidental sampling technique. And the data were tested using validity test, reliability test, hypothesis test and analysis of research data using descriptive analysis, multiple linear regression analysis, correlation coefficient analysis and determination analysis. Based on the results of the hypothesis test in this study is a T-test for online tracking system variables (X1) IE t count 3.146 > t table 2.00324 and a significant level of 0.001 < 0.05 then H0 rejected and Ha accepted. This means that there is a significant influence of Online tracking systems on customer satisfaction. As for the T-test for variable timeliness of delivery (X2) is t count 4.763 > t table 2.00324 and a significant level of 0.000 < 0.05 then H0 rejected and Ha accepted. This means that there is a significant influence between the timeliness of delivery to customer satisfaction. Then for the F-test, namely F count 25.098 > F table 3.16 and a significant level of 0.000 < 0.05 means that simultaneously the Online tracking system and delivery timeliness have a significant effect on customer satisfaction. R number of 0.690 shows the relationship / correlation between customer satisfaction with the independent variable is strong (significant). Adjust R Square of 0.552 means that 55.20% of customer satisfaction variable (Y) can be explained by Online Tracking System variables (X1) and delivery timeliness (X2). While the remaining 44.8% were influenced by other variables that were not included in this study. Based on the results of multiple linear regression test obtained by the equation Y = 1.233 + 0.407 (X1) + 0.580 (X2) means that the score/value of the constant (\( \beta_0 \)) shows that if there is no increase in the variables of the online tracking system and the accuracy of delivery time then the value of customer satisfaction is equal to 1.233. And each addition of one score / variable value of the online tracking system provides an increase of 0.407 to customer satisfaction with fixed X2 conditions and each addition of one score/variable value of delivery timeliness provides the same increase of 0.580 to customer satisfaction with fixed X1.

Keywords: Online Tracking System, on time delivery and customer satisfaction.

I. INTRODUCTION

The world today has entered a period of rapid industrial revolution, based on new technological advances that integrate the physical, digital, and biological worlds have affected all disciplines, economics, industry, and government. In the present day that almost all activities can be accessed via the internet, most partners of freight forwarding services are none other than companies that market goods via the internet or online business people and certain entities whose limitations cannot send their own goods. The Indonesian Consumer Institute Foundation (YLKI) reported that 3.2% of the total 535 complaints during 2022 were complaints about expedition service companies or package deliverers. The freight forwarding business is currently experiencing significant development in accordance with the development of the online business world or online transactions in Indonesia. One of the freight forwarding or logistics companies that utilize is PT Global Jet Express (J&T).PT. J & T Express and online business people by presenting tracking services on goods online (web trace andtracking). This service is provided by the company PT. J & T Express to minimize consumers who are worried due to uncertainty in the timeliness of package delivery in accordance with the estimates provided by the company in addition to the strategies needed by service companies such as PT. J & T Express in order to sustain the opportunities present from the rapid e-commerce business in Indonesia today is focusing on logistics Service Quality system.

Based on the results of interviews with some customers who use the services of PT. J & T Express, the problems in the online tracking system are often inaccurate tracking, reschedule delivery status, delay in delivery receipt number, and difficulty tracking the receipt number because it is not fully accurate or undetectable on the web. According to Yuniati (2018) punctuality is used as a predetermined standard, and
vehicles come, go or pass at a predetermined place and time. Timeliness is also an important factor in providing relevant information. Problems that occur in PT. J&T Express Sampit that the timeliness of delivery is considered less, because lately many people have complained about PT. J & T Express which is considered quite slow, not a few of them complained that the goods were sent not in accordance with the delivery schedule that should be, in addition to some problems that often occur when the delivery process including, delivery errors, over time not delivered courier and packages received outside the estimated time period.

According Soedarmo (2006) customer satisfaction (customer service) is a condition of satisfaction, pleasure or pride felt by consumers when receiving a product or service offered above similar services. Consumer satisfaction is not solely the responsibility and business of the marketing division, but the needs that exist in individuals involved in these services, because customers do not buy products or services but buy a benefit. Then the company took steps with the Management Information System on its services that make it easier for customers to access wherever and whenever they want to access, and access portals that are available 24 hours will be more efficient and more flexible. In addition, because it is one of the crucial points for and influential for customer satisfaction itself. Many consumers who use logistics services are trusted because they can provide maximum service in the timeliness of shipping however, if in the online tracking system and timeliness of delivery there are still many complaints from customers, it can be ascertained that customer satisfaction will decrease against PT. J & T Express Sampit.

II. METHODS

According to Sugiyono (2017) quantitative approach is an approach to data collection using research instruments with statistical analysis that has the purpose of testing hypotheses that have been established and the relationship of variables to the object under study is causal. In this study the relationship between variables is causal and this study also intends to test the hypothesis between discipline and loyalty to employee performance, for that approach in this study is a quantitative approach.

Population

Population is the overall target of the study. According to Sugiyono (2017), population is a generalization area consisting of objects/subjects that have certain qualities and characteristics that are set by researchers to be studied and then drawn conclusions. As in this study the population that the authors take is the customer who uses the services of J&T Express Sampit.

Sample

According to Sugiyono (2017) the sample is part of the number and characteristics owned by the population. In this study, the authors used the technique of Accidental Sampling. According to Sugiyono (2017) accidental sampling is a sampling technique based on chance, that is, consumers who happen to meet researchers can be used as a sample, if it is seen that people who happen to meet are suitable as a source of data. Determination of the minimum number of samples in this study refers to the statement of Hair et al., (2010) that the number of samples in this study is the number of indicators multiplied by 5-10. In this study the number of items is 12 question indicators used to Measure 3 variables. So that the number of respondents used is 12 X 5 = 60. So the number of samples taken was 60 respondents.

Operational Definition Of Research Variables

According to Sugiyono (2017), a research variable is an attribute, trait or value of a person, object or activity that has variations between one and the other or one other object. So it can be said that the operational definition of research variables is the determination of concepts based on the nature or value of people, objects or activities into variables that can be measured.

Online Tracking System

Swaid and Wigand (2009) define that the service in the electronic environment (e-service) as one of the delivery of services by using new media, namely the website. The indicators of online tracking system according to Saha and Zhao (2005) are as follows:

1. Efficiency
2. Reliability

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3. Responsiveness
4. Fullfilling
5. Privacy

**Delivery Timeliness**
According to Handoko (2010) timeliness is the period of time a customer orders a product until the product arrives at the customer. The indicators of delivery timeliness according to according to Juniariska (2020) are:
1. Accuracy in freight forwarding services
2. Accuracy in determining the time

**Customer Satisfaction**
According to Kotler (2016) customer satisfaction is a person's feeling of pleasure or disappointment that arises after comparing between his perception or impression of performance is below expectations, the customer is not satisfied. But, if the performance exceeds expectations, the customer is very satisfied and happy. Indicators of customer satisfaction according to Irawan (2008) is:
1. Product quality
2. Emotional
3. Price
4. Cost

III. RESULTS AND DISCUSSION

**Test Results Validity Of Research Instruments**
According to Sugiyono (2017), instrument validity is a measure that shows the levels of validity or validity of an instrument. Validity test in this case aims to test the level of accuracy of the instrument in measuring variables online tracking system (X1), delivery time (X2), and customer satisfaction (Y). The calculation of this validity test using the program SPSS (Statistical Programe For the Social Science) for windows version 23.0. The results of the instrument validity test in this study taken as many as 30 respondents are as follows:

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Statement</th>
<th>N</th>
<th>Correlation</th>
<th>Significant</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Tracking System (X1)</td>
<td>X1.1</td>
<td>30</td>
<td>0.729 &gt; 0.3</td>
<td>0.000 &lt; 0.05</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.2</td>
<td>30</td>
<td>0.711 &gt; 0.3</td>
<td>0.000 &lt; 0.05</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.3</td>
<td>30</td>
<td>0.753 &gt; 0.3</td>
<td>0.000 &lt; 0.05</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.4</td>
<td>30</td>
<td>0.775 &gt; 0.3</td>
<td>0.000 &lt; 0.05</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.5</td>
<td>30</td>
<td>0.735 &gt; 0.3</td>
<td>0.000 &lt; 0.05</td>
<td>Valid</td>
</tr>
<tr>
<td>On Time Delivery (X2)</td>
<td>X2.1</td>
<td>30</td>
<td>0.872 &gt; 0.3</td>
<td>0.000 &lt; 0.05</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X2.2</td>
<td>30</td>
<td>0.912 &gt; 0.3</td>
<td>0.000 &lt; 0.05</td>
<td>Valid</td>
</tr>
<tr>
<td>Customer Satisfaction (Y)</td>
<td>Y1</td>
<td>30</td>
<td>0.669 &gt; 0.3</td>
<td>0.000 &lt; 0.05</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y2</td>
<td>30</td>
<td>0.709 &gt; 0.3</td>
<td>0.000 &lt; 0.05</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y3</td>
<td>30</td>
<td>0.724 &gt; 0.3</td>
<td>0.000 &lt; 0.05</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y4</td>
<td>30</td>
<td>0.738 &gt; 0.3</td>
<td>0.000 &lt; 0.05</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y5</td>
<td>30</td>
<td>0.763 &gt; 0.3</td>
<td>0.000 &lt; 0.05</td>
<td>Valid</td>
</tr>
</tbody>
</table>

*Source: appendix Output SPSS version 23.0 Data processed, 2023*

From the test results of the validity of the above research instruments, shows that the three variables are Online tracking system (X1), delivery timeliness (X2), and customer satisfaction (Y) seen all items of the statement has a correlation coefficient (r) > 0.3 with a significant level < 0.05 and all items of the statement above are valid. Thus, it can be concluded that each item of the statement used is feasible and can be trusted to collect the data to be used in this study.
Reliability Test Results Of Research Instruments

Table 2. Reliability Test Results Of Research Instruments

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Alpha Cronbach (α)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Tracking Sys (X₁)</td>
<td>30</td>
<td>0.790 &gt; 0.6</td>
<td>Reliabel</td>
</tr>
<tr>
<td>On Time Delivery (X₂)</td>
<td>30</td>
<td>0.739 &gt; 0.6</td>
<td>Reliabel</td>
</tr>
<tr>
<td>Customer Satisfaction (Y)</td>
<td>30</td>
<td>0.750 &gt; 0.6</td>
<td>Reliabel</td>
</tr>
</tbody>
</table>

Source: appendix Output SPSS version 23.0
Data created, 2024

From the test results of the reliability of research instruments above shows that the three variables, namely online tracking system (X₁), delivery timeliness (X₂), and customer satisfaction (Y) is reliability or reliable because the value of alpha cronbach > 0.6. Thus it can be concluded that the questionnaire as a measuring tool in this study is reliable and all questions for these variables can be used to collect the necessary data in the study.

Results Of Multiple Linear Regression Analysis

Statistical calculations in multiple linear regression in this study is to use the help of the program SPSS (Statistical program For the Social Sciences) for windows version 23.0 as shown in the table below:

Table 3. Multiple Linear Regression Test Results

<table>
<thead>
<tr>
<th>Variabel</th>
<th>B</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.233</td>
<td>1.511</td>
<td>.136</td>
<td></td>
</tr>
<tr>
<td>Online Tracking Sys (X₁)</td>
<td>.407</td>
<td>.404</td>
<td>3.146</td>
<td>.000</td>
</tr>
<tr>
<td>On Time Delivery (X₂)</td>
<td>.580</td>
<td>.194</td>
<td>4.763</td>
<td>.001</td>
</tr>
<tr>
<td>Tingkat = 5% (0.05)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: appendix Output SPSS version 23.0
Data created, 2024

Based on the table above, the coefficients and constants can be known as follows:

\[ \alpha = 1.233 \]
\[ b₁ = 0.407 \]
\[ b₂ = 0.580 \]

Then the multiple linear regression equation is:

\[ Y = \alpha + b₁X₁ + b₂X₂ + e \]
\[ Y = 1.233 + 0.407 (X₁) + 0.580 (X₂) \]

Where:
X₁ = Online Tracking System Variable
X₂ = Variable Delivery Timeliness
Y = Customer Satisfaction
\[ e = \text{standard Error} \]

From the multiple linear regression equation above can be described as follows:

\[ \alpha = 1.233 \]

This constant value indicates that if there is no increase in the variables of online tracking system and delivery timeliness, then the value of customer satisfaction is 1.233.

\[ b₁ = 0.407 \]

The coefficient value of online tracking system variable (X₁) of 0.407 indicates if the online tracking system variable increases by one with the assumption unit variable delivery timeliness (X₂) of fixed magnitude. It will increase customer satisfaction by 0.407 units and vice versa if the online tracking system variable is reduced by one unit will result in reduced customer satisfaction by 0.407.

\[ b₂ = 0.580 \]

The coefficient value of the variable delivery timeliness (X₂) of 0.580 indicates if the variable delivery timeliness increased by one with the assumption unit variable online tracking system (X₁) of fixed magnitude. It will increase customer satisfaction by 0.580 units and vice versa if the delivery timeliness variable is reduced by one unit will result in reduced customer satisfaction by 0.580.

Result of correlation coefficient analysis (r)
To find the relationship between two or more variables is done by calculating the correlation between variables to be searched for the relationship. Correlation is a number that indicates the direction and strength of the relationship between variables or more. Direction is expressed in the form of a positive or negative relationship. While the strength of the relationship is expressed in the magnitude of the correlation coefficient. The magnitude of the correlation coefficient is calculated by the program SPSS (Statistical program For the Social Sciences) for windows version 23.0 as shown in the table below:

**Table 4. Result of correlation coefficient (r) and determination (R²)**

<table>
<thead>
<tr>
<th>Models</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.690</td>
<td>0.422</td>
<td>0.552</td>
<td>1.967</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), on-time delivery (X2), Online tracking system (X1)

*Source: created Data, 2024*

Based on the table above, it can be seen that the correlation coefficient (r) of 0.690 means that the online tracking system (X1) and delivery timeliness (X2) together have a strong positive relationship with customer satisfaction who have used J&T Express services. This is in accordance with the value criteria based on Sugiyono (2017), namely the value of r 0.60 to 0.799, then the relationship between X and Y is strong.

**Analysis Of The Coefficient Of Determination (R²)**

Based on the table above shows that the value of Adjusted R Square is 0.552. This shows that together the variables of online tracking system (X1) and delivery timeliness (X2) have a significant effect on customer satisfaction at J&T Express in Sampit, which is 55.2 %. While the remaining 44.8% is influenced by other variables that are not examined in this study.

**Hypothesis Test Results**

The hypothesis test results that can be put forward are as follows:

**T-test results (Partial Test)**

From the calculation with the help of the program SPSS (Statistical program For the Social Sciences) for windows version 23.0 obtained the t count value for each variable that is online tracking system (X1) and timeliness of delivery (X2) to customer satisfaction (Y) can be seen in the following table:

**Table 5. T-test results (partial)**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Models</td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>1.233</td>
<td>2.568</td>
</tr>
<tr>
<td>Online tracking system</td>
<td>.407</td>
<td>.130</td>
</tr>
<tr>
<td>on-time delivery</td>
<td>.580</td>
<td>.384</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Decision Decision (Y)

*Source: Generated Data, 2024*

1. Based on the results of 3,146 online procurement system trials and a significance level of 0.000. The label value can be calculated using the formula $df = n-k-1 = 60-3-1 = 56$ with $\alpha = 0.05$: $2 = 0.025$ (2-sided test). So we get a label of 2.00324 (table light t). For variations in online learning systems that have a value of $t_{count} > t_{table}$ (3.146 > 2.00324) and a significance level of 0.000 < 0.05, then H0 is rejected and accepted, namely that there is a difference between online learning systems and learning outcomes. Thus, the hypothesis which states that there is a difference between the online learning system and J&T Express distance learning is proven.

2. Based on the test results, the timeliness is 4.763 and the significance level is 0.001. The label value can be calculated using the formula $df = n-k-1 = 60-3-1 = 56$ with $\alpha = 0.05 : 2 = 0.025$ (2-sided test). So we get a label of 2.00324 (table light t). For variations in measurement time speed, it gives a value of $t_{count} > t_{table}$
(4.763 > 2.00324) and a significance level of 0.001 < 0.05, so H0 is calculated and recalculated, so that a measurement is obtained between the measurement time speed and the output. Thus the hypothesis which states that there is a change between the times of changes in J&T Express management decisions is real.

**F-Test Results (Simultaneous Test)**

The f test (simulation) is carried out to determine changes in the independent variable simultaneously to the dependent variable. The following are the assessment results of the f-test carried out with the help of the SPSS program (SPSS (Social Science Statistics Program) for Windows version 23.0.

| Table 6. Hasil Uji f (Anova) |
|---|---|---|---|---|---|
| Model | Sum of Squares | Df | Mean Square | F | Sig. |
| Regression | 139.261 | 2 | 19.636 | 25.098 | 0.000 |
| Residual | 119.472 | 57 | 3.850 | | |
| Total | 258.733 | 59 | | | |

a. Dependent Variable: Customer Satisfaction (Y)
b. Predictors: (Constant), On-Time Delivery (X2), Online Tracking System (X1)

**Source: processed primary data 2024**

Based on the test results F-count dketahui F-count value of 25.098 and a significant level of 0.000. Ftable value can be obtained by the formula df1 = (number of variables-1) = 3-1 =2 and df2 = n-k-1 = 60-3-1 = 56 with ③ = 0.05 is equal to (3.16) (seen from Appendix Table f). Value F > ftable count (25.098 > 3.16) and significant level 0.000 < 0.05 then H0 rejected and Ha accepted which means there is an influence between the variables of online tracking system and delivery timeliness. Thus it is said that the third hypothesis that the Online tracking system and delivery timeliness affect customer satisfaction that has used the services of J & T Express is proven.

**IV. CONCLUSIONS AND ADVICE**

**Conclusion**

Based on the results of research on Online tracking system and timeliness of delivery to customer satisfaction J & T Express Sampit can be concluded as follows:

1. Based on the T-test (partial) shows that the online tracking system affects customer satisfaction J&T Express Sampit. This is evidenced by the value of thitung > ttable 3.146 > 2.00324 with a significant level of 0.001 < 0.05.
2. That the timeliness of delivery affect customer satisfaction J & T Express Sampit. This is evidenced by the value of thitung > table 4.763 > 2.00324 with a significant level of 0.001 < 0.05.
3. Based on the F test (simultaneous) shows that the electronic online tracking system and delivery timeliness affect customer satisfaction J&T Express Sampit. This is evidenced by the value fhitung > ftable 25.098 > 3.16 with a significant level of 0.000 < 0.05. Based on the results of correlation analysis obtained R value of 0.690 indicates that there is a strong relationship between the online tracking system and the timeliness of delivery to the satisfaction of J&T Express Sampit. While it is known that the value of Adjusted R Square is 0.552. This shows that together the variables of online tracking system (X1) and delivery timeliness (X2) have a significant effect on customer satisfaction at J&T Express in Sampit, which is 55.2%. While the remaining 44.8% is influenced by other variables that are not examined in this study.

**Advice**

Based on the above conclusions, the researchers can provide advice as follows:

1. The J & T Express Sampit

J&T Express Sampit is expected to pay more attention to the online tracking system and delivery timeliness, by always evaluating the employees, especially the warehouse Admin in performing upadate scans of packages in accordance with the actual status and Sprinter Delivery in order to be flexible in the delivery time, to be able to prevent customer dissatisfaction. Its function is so that customers always use the company's services for a long time and do not move to use the services of other companies.

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2. For Further Researchers
It is expected for further researchers to conduct the development of this research by adding new independent variables. Because customer satisfaction is still much influenced by other factors that are not studied in this study, as well as in order to science in the future.

3. For The Academic
As reading material and support for subsequent research.

REFERENCES


