The Influence of Logistics Service Quality on Shipping Services (Study on Consumers of J&T Express, JNE Express, SiCepat, Pos Indonesia and Ninja Express)

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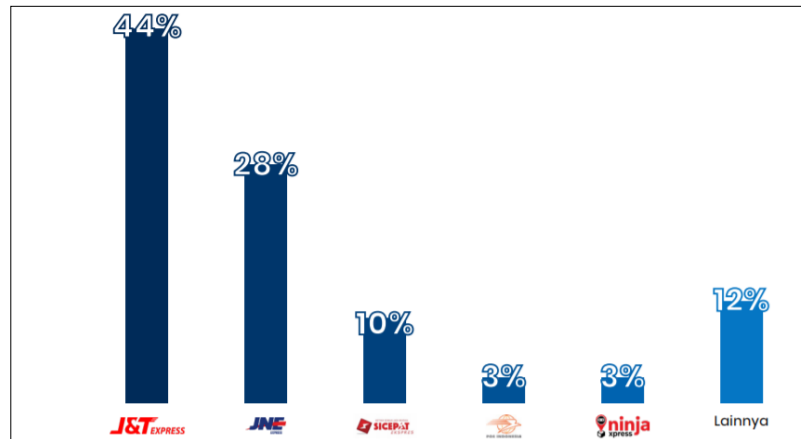*Afifatul Yumna

ABSTRACT

This research is motivated by consumer dissatisfaction with the use of delivery services at J&T Express, JNE Express, SiCepat, Pos Indonesia and Ninja Express. This study aims to determine the effect of Logistics Service Quality, namely Information Quality, Ordering Procedures, Ordering Release Quantities, Timeliness, Order Accurancy, Order Quality, Order Conditions, Order Disrepancy Handling, and Personal Contact Quality, on consumer satisfaction in using delivery services at J&T Express. , JNE Express, SiCepat, Pos Indonesia and Ninja Express. The method used in this study is a quantitative method with descriptive type and causal research. The types of data needed for research are primary data and secondary data. Sampling was done by non-probability sampling method with purposive sampling type, with a total of 210 respondents. The data analysis technique used was descriptive analysis and multiple linear regression analysis to determine the effect of Logistics Service Quality on customer satisfaction. The results of the analysis of this study indicate that partially the variables Ordering Procedures, Ordering Release Quantities, Order Conditions and Personal Contact Quality have a significant effect on consumer satisfaction. Then the results of simultaneous research analysis show that there is a significant influence between Logistics Service Quality, namely Information Quality, Ordering Procedures, Ordering Release Quantities, Timeliness, Order Accurancy, Order Quality, Order Conditions, Order Disrepancy Handling, and Personal Contact Quality. The coefficient of determination shows that the Logistics Service Quality variable has a significant effect on customer satisfaction by 58.06%, while the remaining 41.94% is approved by other variables outside this study.

Keywords: Logistics Service Quality; Consumer dissatisfaction; Delivery Services; Shipping Service.

1. Introduction

Currently, the needs of each individual are increasingly complex and the rapid growth of the market encourages business people to be able to distribute their products to consumers. In distributing their goods or products, business people need intermediaries, namely companies that are in the business of providing delivery services. The existence of these shipping services is very

Figure 1.List of the most popular shipping services in Indonesia

useful in the development of trade. This makes it easy for consumers to use freight forwarding services. The number of freight forwarding services makes consumers have more opportunities to compare one delivery service to another. The shipping services that are often used by the Indonesian people are J&T Express, JNE Express, Sicepat, Pos Indonesia and Ninja.Express.

Freight forwarding business in the country and abroad are growing quite rapidly. A service business certainly requires a specification and design of a service system that will be provided to consumers. Therefore, the ability to carry out various innovations and combinations in a different series of activities for each consumer is very important for goods delivery services to get the satisfaction felt by consumers or users of goods delivery services.

However, along with the development of the use of delivery service providers, there are many factors that need to be considered by freight forwarders so that users feel satisfied when shopping on the site. Based on Figure 1.2, the problems felt by consumers in using goods delivery services on the five most popular online shopping sites in Indonesia, namely delays in delivery are 57%. The second complaint is that the transit time does not match the estimate, which is 12%. The third complaint was that the package was damaged when it arrived at its destination, which was 12%. And lastly, complaints on the tracking system have errors or are inaccurate, which is 10% (Populix Data, 2021).

Things as stated earlier, of course, will affect customer satisfaction. The importance of understanding customer satisfaction in providing the quality provided with the scope of logistics services has been widely studied by previous researchers. Annur (2019) said that there is a lot of competition from shipping service companies, only quality delivery service companies that are able to provide high value will be in demand by consumers so that they can continue to compete and provide good service to all consumers. Jian, Jun & Yang (2016) say that every company must realize that the existence of loyal customers is a support for the company's success.

Some of the problems felt by consumers in service quality can be measured by the concept of Logistics Service Quality (LSQ) to be able to identify the services of a delivery service provider

company, there are nine dimensions to measure.The first dimension is information quality, which is a dimension related to various information provided by shipping services. The second dimension, namely ordering procedures, is a dimension related to shipping service procedures in receiving orders from consumers. The third dimension is ordering release quantities, which is a dimension related to the policy of shipping services related to the quantity of shipments. Furthermore, the fourth dimension is timeliness, which is a dimension related to the evaluation of delivery services based on the time required. The fifth dimension is order accurancy, which is a dimension related to the accuracy level of delivery services for orders that have been received from consumers. The sixth dimension is order quality, which is a dimension related to shipping service standards. The seventh dimension is order conditions, which is a dimension related to the ability of shipping services to maintain goods. The eighth dimension is order discrepancy handling, which is a dimension related to handling delivery services for various problems, and the last dimension is personal contact quality, which is a dimension related to consumers getting benefits and explanations through personal contact. nine d The eighth dimension is order discrepancy handling, which is a dimension related to handling delivery services for various problems, and the last dimension is personal contact quality, which is a dimension related to consumers getting benefits and explanations through personal contact. nine d The eighth dimension is order discrepancy handling, which is a dimension related to handling delivery services for various problems, and the last dimension is personal contact quality, which is a dimension related to consumers getting benefits and explanations through personal contact. nine dThese dimensions must be considered in meeting the satisfaction of consumers who use delivery services. According to Prasetyo (2017) that Logistics Service Quality is based on the results of an ongoing evaluation of the interactions applied from delivery service providers.. Based on the above background, the researcher will conduct research on aspects related to the explanation above, namely the Effect of Logistics Service Quality on the Satisfaction of Freight Forwarding Services.

Based on this, this research aims to:

- How do consumers evaluate the nine dimensions of Logistic Service Quality at J&T Express, JNE Express, Sicepat, Pos Indonesia and Ninja Ekspress?
- Is there an influence of the nine dimensions of Logistic Service Quality on customer satisfaction at J&T Express, JNE Express, Sicepat, Pos Indonesia and Ninja Ekspress?
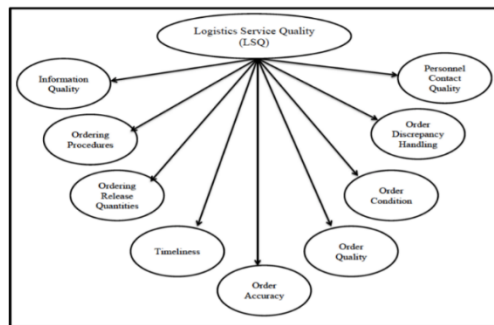
2. Literature Review

2.1   Logistics Service Quality

"Combined physical distribution with customer service and presented the famous measurement scale of Logistic Service Quality (LSQ)" (Menzer, Flint & Kent in Muhammad, Yusoff, Kamal, Fina & Melan: 2017). In the shipping service or logistics industry, measurements are based on a combination of physical distribution of goods and customer service. Knowing the level of customer service assessment of physical distribution services can use Logistic Service Quality (LSQ). The measurement of LSQ according to Surucu and Ozispa (2017:116) says that, it is based

on "The Nine Features" as shown in Figure 2.1, as follows:

Figure 2. *"The Nine Features"*
Source: Surucu & Ozizpa (2017)

Based on Figure 2.1, it can be explained that the nine dimensions of *Logistics Service Quality* It can be seen that Logistics Service Quality is an assessment of physical distribution and services to consumers. Physical distribution is closely related to the condition of the goods that have been received from consumers to be delivered.

2.2   Customer Satisfaction (Customer Satisfaction)

According to Kotler and Keller (2016:153) "Customer satisfaction is a feeling of pleasure or disappoinmemt someone who arises after comparing the performance that has been perceived by a product or service (or result) with his expectations. If performance fails to meet expectations, the customer will feel dissatisfied. If performance is in line with expectations, the customer will feel satisfied. If exceeds its expectations, the customer will feel very satisfied or happy. Consumer satisfaction is a person's feelings of pleasure or disappointment that arise after comparing a product or service (or result) in accordance with his expectations after being felt. If the results meet their expectations or are more than what is expected, the consumer will be satisfied. Conversely, if the results do not meet their expectations, the consumer will not be satisfied.

Satisfaction felt by consumers is seen from after the consumer feels or uses what has been offered by the company. The existence of satisfaction felt by each consumer can lead to a positive response in the form of repeat purchases, and can easily invite other consumers to enjoy the same product. These benefits will be obtained by the company through the dissemination of positive information from consumers to other consumers.

According to Sagadih and Sopiah (2019: 24) consumer satisfaction and dissatisfaction are the impacts resulting from comparing the expectations that consumers have before purchasing with the actual results of products or services. Some of these definitions can be concluded that consumer satisfaction is the level of feeling that a person has when they receive a product or service that is offered or they want, and compares the product or service that has been received with the expectations they have. The satisfaction that consumers have with each other will differ according

to the expectations, desires and needs of each consumer.

In Tjiptono (2016: 368) it is said that there is no single best measure of satisfaction with consumers. Although it is universally agreed upon, amid the various ways of measuring customer satisfaction, there are 3 common concepts regarding the object of measurement:

- Confirmation of hope

  Satisfaction cannot be measured directly, but can be concluded based on the suitability or discrepancy between the expectations held by consumers and what they have felt after using the products or services of a company.

- Intention to repurchase

  Consumer satisfaction can be measured directly by asking whether consumers will use the company's products or services.

- Willingness to recommend

  If consumers feel satisfied with the product or service, the consumer will recommend the product or service to others. The availability of consumers to be able to recommend the product to friends or family is the most important measure to be followed up.

- Customers don't complain

  The satisfaction that consumers have after using the product or service will give positive results.

3. Research Methodology

This research uses a quantitative approach method using descriptive research and causal research to be able to find out cause and effect. To determine the sample in this study using the Bernoulli formula.

$$n = \frac{(1,96)^2 \; 0,5 \times 0,5}{0.1^2} \tag{1}$$

$$n = \frac{0,9604}{0.01} \tag{2}$$

$$n = 96,04 \approx 100 \tag{3}$$

Based on these calculations, obtained a sample of 96.04 but the authors took a total of 210 respondents to reduce errors in filling out the questionnaire. The sampling technique that the author uses in this research is using non-probability sampling, purposive sampling technique with the criteria or considerations to become respondents are consumers J&T Express, JNE Express, SiCepat, Pos Indonesia and Ninja Express.. Data collection techniques through primary and secondary data. The operational variables used are the independent variables Information Quality (X1), Ordering Procedures (X2), Ordering Release Quantities (X3), Timelines (X4), Order Accurancy (X5), Order Quality (X6), Order Conditions (X7), Order Disrepancy Handling (X8),

Personal Contact Quality (X9) and the dependent variable, namely Consumer Satisfaction (Y).

4. Results

4.1 Hypothesis test

Validity and Reliability Test
Based on SPSS calculations, it is obtained r count for 23 statement items on nine dimensions of Logistics Service Qualityand Consumer Satisfaction (Y) has a value that exceeds the specified critical limit of 0.361, so this study can be declared valid. The value of Cronbach's Alpha is 0.965, which means that the value exceeds the specified critical limit of 0.60, so this study can be accepted and declared reliable.

Descriptive Analysis
Descriptive analysis is used to describe the perception of 210 respondents regarding the research variables taken from the nine dimensions of Logistic Service Quality and Consumer Satisfaction (Y) who have used the delivery services of J&T Express, JNE Express, SiCepat, Pos Indonesia and Ninja Express.

Variable	Total Score	Score Percentage	Category
Information Quality	1789	85.17%	Very good
Ordering Procedures	1679	80.37%	Well
Ordering Release Quantities	1624	77.33%	Well
Timelines	1744	83.04%	Well
Order Accuracy	2645	83.43%	Well
Order Quality	1697	82.98%	Well
Order Conditions	1764	83.81%	Well
Order Discrepancy Handling	2650	84.00%	Very good
Personal Contact Quality	1549	73.76%	Well
Consumer Satisfaction	2423	76.92%	Well

Simultaneous Significance Test (F Test)
This test is intended to determine whether there is a joint effect of the independent variables Information Quality (X1), Ordering Procedures (X2), Ordering Release Quantities (X3), Timelines (X4), Order Accurancy (X5), Order Quality (X6), Order Conditions (X7), Order Disrepancy Handling (X8), Personal Contact Quality (X9) to the dependent variable Consumer Satisfaction (Y)

Table 1. F Test Results
Source: SPSS Processing Results

FCount	Significant
71.006	0.000

In table 1 it can be seen that Fcount is 71.006 with a significance level of 0.000. Therefore, in both calculations, Fcount > Ftable (71.006 > 2.42) and the significance level is 0.000 < 0.05. This shows that H0 and Hα are accepted, meaning that *Information Quality, Ordering Procedures, Ordering Release Quantities, Timeliness, Order Accurancy, Order Quality, Order Conditions, Order Disrepancy Handling,* and Personal Contact Quality together have a significant effect on customer satisfaction J&T Express, JNE Express, SiCepat, Pos Indonesia and Ninja Express.

Partial Significance Test (T Test)
Partial hypothesis testing or t test is used to determine each of the independent variables of the nine dimensions of the dependent variable Consumer Satisfaction (Y).

Table 2. T . Test Results
Source: SPSS Processing Results

Variable	tcount	Significant
X1	-1.137	0.257
X2	2,282	0.024
X3	2,238	0.026
X4	-0.508	0.612
X5	0.414	0.679
X6	-1,120	0.264
X7	2,308	0.022
X8	1,528	0.128
X9	12,524	0.000

    o   Based on table 2 it can be seen that:

- The Information Quality (X1) variable has a value of tcount (-1.137) < ttable (1.97) and a significance level of 0.257 > 0.05. Then H0 is rejected. Therefore, it can be concluded that partially there is no significant effect of Information Quality (X1) on consumer satisfaction (Y).
- The Ordering Procedures variable (X2) has a value of tcount (2.282) > ttable (1.97) and a significance level of 0.024 <0.05. Then H0 is accepted. Therefore, it can be concluded that partially can significantly affect the Ordering Procedures (X2) on customer satisfaction (Y).
- The Ordering Release Quantities (X3) variable has a value of tcount (2.238) > ttable (1.97) and a significance level of 0.026 <0.05. Then H0 is accepted. Therefore, it can be concluded that partially can significantly influence Self-Efficacy (X3) on consumer satisfaction (Y).

- Timeliness variable (X4) has a value of tcount (-0.508) < ttable (1.97) and a significance level of 0.612 > 0.05. Then H_0 is rejected. Therefore, it can be concluded that partially there is no significant effect of Timeliness (X4) on consumer satisfaction (Y).
- The Order Accurancy variable (X5) has a value of tcount (0.414) < ttable (1.97) and a significance level of 0.679 > 0.05. Then H0 is rejected. Therefore, it can be concluded that partially there is no significant effect of Order Accurancy (X5) on consumer satisfaction (Y).
- The Order Quality variable (X6) has a value of tcount (-1.120) < ttable (1.97) and a significance level of 0.264 > 0.05. Then H0 is rejected. Therefore, it can be concluded that partially there is no significant effect of Order Quality (X6) on consumer satisfaction (Y).
- The Order Conditions variable (X7) has a value of tcount (2.308) > ttable (1.97) and a significance level of 0.022 <0.05. Then H0 is accepted. Therefore, it can be concluded that partially there is a significant effect of Order Conditions (X7) on consumer satisfaction (Y).
- The Order Disperancy variable (X8) has a value of tcount (1.528) < ttable (1.97) and a significance level of 0.128 > 0.05. Then H0 is rejected. Therefore, it can be concluded that partially there is no significant effect of Timeliness (X8) on consumer satisfaction (Y).
- The Personal Contact Quality (X9) variable has a value of tcount (12,524) > ttable (1,97) and a significance level of 0.000 <0.05. Then H0 is accepted. Therefore, it can be concluded that partially there is a significant influence of Personal Contact Quality (X9) on consumer satisfaction (Y).

Coefficient of Determination Results

The coefficient of determination (R2) is used to measure how far the model is in explaining the dependent variables. Calculating R square using the coefficient of determination by using the following formula

KD = r2 x 100%
= (0.762)2 x 100%
= 58.06%

The results of the formula show a coefficient of determination of 58.06%. This shows that the independent variable (Logistics Service Quality) on the dependent variable, namely Customer Satisfaction, is 58.06%. While the remaining 41.94% is influenced by other factors not examined in this study.

5. Discussion

In the results of the descriptive analysis of the questionnaire as many as 23 questions distributed to 210 respondents, it is known that Information Quality (X1) on customer satisfaction using delivery services J&T Express, JNE Express, SiCepat, Pos Indonesia and Ninja Express obtained an average of 85.17%., by looking at the percentage value, it shows that Information Quality is

included in the very good category. This shows that respondents who use shipping services feel that they get clear information about the status of the package of goods and information on tracking goods that are being processed.

Furthermore, the Ordering Procedure (X2) variable obtained an average of 77.33%, by looking at the percentage value it shows that Ordering Procedures are included in the good category. This shows that respondents find it easy to follow the ordering procedure in sending packages and respondents can also use the cashless pickup procedure easily.

In the third variable, Ordering Release Quantities (X3), the percentage is 83.04%, by looking at the percentage, it shows that Ordering Release Quantities are included in the good category. This shows that respondents feel that the policy provided by shipping services is that consumers never feel Overload in shipping because the limits given can be adjusted and consumers never experience difficulties because the quantity is appropriate.

The next variable is Timelines which get an average of 83.43%, by looking at this percentage it shows that Timelines is included in the good category. This shows that consumers can feel satisfied because the delivery service they often use can deliver or receive shipments within the expected timeframe and based on the agreed time.

Next is the Order Acucurancy variable which has obtained an average of 82.98%, by looking at the percentage, it shows that Order Accurancy is included in the good category. This shows that consumers are satisfied with using delivery services because the goods they send arrive at the right destination, besides that the number of goods received is in accordance with their requests and expectations.

The seventh variable is Order Quality which gets an average of 83.81%. Looking at the percentage, it shows that the order quality is included in the good category. This shows that consumers are satisfied with using the delivery service of their choice. Some of the facilities that have been provided by consumers so that they continue to feel satisfied are providing additional wooden packing alternatives for babies that are easily broken. In addition, the goods sent can use bubble wrap to maintain quality.

The eighth variable is Order Disrepancing Handling which has received an average of 84%. Looking at the percentage, it shows that Order Direspancy Handling is included in the very good category. This shows that consumers are very satisfied with the delivery services they use, because the packages they send are processed properly, and complaints that have been submitted are carried out thoroughly and the goods that have been processed never feel lost.

The last is Personal Contact Quality which has obtained an average of 73.76%, looking at this

percentage, it shows that personal contact quality is included in the good category. This shows that consumers are satisfied because the personal contact response from the delivery service is very good and the courier service that handles the package is very responsive.

Apart from the problems that occur to consumers, related to satisfaction, consumers will never feel satisfied in using any courier service when the problems that occur are still felt by consumers. By providing what has been promised or supporting facilities, consumers will feel satisfied.

6. Conclusion

Based on the results of the descriptive analysis, all nine dimensions of Logistic Service Quality are in the good category. With the lowest score is 73.76% which is owned by the Personal Contact Quality variable and the highest score is owned by the Information Quality variable. So it can be improved the factors that influence each other to get customer satisfaction.

Based on the results of the partial hypothesis test (T test), the nine dimensions of Logistic Service Quality partially have an influence, namely Ordering Procedures, Ordering Release Quantities, Order Conditions and Personal Contact Quality which have an influence on customer satisfaction. The variable that has the greatest significant effect and the highest tcount is the Personal Contact Quality variable.

Meanwhile simultaneously (F test), Fcount > Ftable (71.006 > 2.42) and the significance level is 0.000 <0.05. So it can be concluded that the nine dimensions of Logistic Service Quality simultaneously have a significant effect on customer satisfaction. The magnitude of the influence of these nine dimensions on consumer satisfaction is 58.06% and the remaining 41.94% is influenced by other factors.

References

Fernandes, DW, Moor, RG, & Vitorino Filho, VA (2018). Logistics service quality as a mediator between logistics capabilities and customer satisfaction. *Logistics Service Quality*, 358-372

Gulc, A. (2017). Models and Methods of Measuring the Quality of Logistics Service. 7th *International Conference on Engineering, Project, and Production Management*, 255-264

Hati, SW, & Juliati, A. (2019). *Analysis of the Effect of Logistics Service Quality on Customer Satisfaction and Loyalty* at JNE Logistics Company.

Hidayat, A. (2017). *Differences in Normality and Homogeneity Test*. Retrieved October 25, 2021:https://www.statistikian.com/2017/03/difference-test-normality-and-homogeneity.html.

Kotler, Phillip and Kevin Lane Keller.(2016). *Marketing Management Edition* 12 Volumes 1 & 2. PT. Index. Jakarta

Mentzer, JT, Hult, GT, & Flint, DJ (2015). Logistics Service Quality As A Segment-Customized Process. International Journal of Marketing, 82-104. Mentzer, JT, Flint, DJ, & Kent. (1999). Developing a Logistics Service Quality Scale. *Journal of Business Logistics*, 20

Muhammad, MA, Yusoff, NS, Fina, NT, Kamal, A., & Melan, MB (2017). Logistics Service Quality Of Courier Providers Among Students In UUM. *International Journal*, 275-286

TIKI. (2017). About Tiki. Retrieved on September 24, 2020:https://tiki.id/id/about-tiki.

Yin Ho, JS, Teik, DO, Tiffany, F., Kok, LF, & Teh, TY (2012). The Moderating Effect of Local VS Fereign Courier Service Providers on Logistic Service Quality (LSQ). *International Journal of Trade, Economics and Marketing*, 257-261.