# The Mediating Role Of Satisfaction On Logistic Service Quality-Loyalty Relationship

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#### Abstract

Globalization has pushed people worldwide to buy all the things they want from anywhere. PT XYZ Surabaya is a logistics company engaged in freight forwarding to sends containers in large quantities for export and import. This study examines the factors that cause customer loyalty in the reuse of logistics services. The purpose of this study is to examine the effect of logistics service quality, which consists of five dimensions (personnel contact quality, order quality, timeliness, information quality, and order discrepancy handling) on loyalty by examining the mediating role of satisfaction. This type of research is quantitative with the number of respondents being 105 companies in various cities that often use logistics services at PT XYZ. The data analysis result showed that the five dimensions of logistics service quality positively affect satisfaction. Additionally, there was a positive correlation between satisfaction and loyalty. This study also shows that information quality, order quality, and order discrepancy handling significantly influence loyalty through satisfaction. However, personnel contact quality and timeliness failed to positively affect loyalty through satisfaction. The implication of the results of this study is the importance of improving service quality, which then leads to increased loyalty.

Keywords: Logistic Service Quality, Satisfaction, Loyalty

#### Introduction

Currently, free trade has become commonplace, where everyone in all corners of the world can buy all the goods they want from anywhere and anytime. Free markets can provide information on the price and quantity demanded of certain commodities, provide incentives for entrepreneurs to develop their businesses, provide incentives for entrepreneurs to acquire modern skills, and stimulate the use of goods and factors of production in a more efficient manner and function to provide complete freedom. the community to carry out economic activities. The existence of this free market helps customers make purchases from all over the world in both large and small quantities. If a customer only orders goods in small quantities, the customer can simply use a courier service. Courier services meet the needs of delivery to the destination. However, if someone orders goods in large quantities, then logistics services will be needed to send goods in large quantities.

The Central Statistics Agency (BPS) recorded that the November 2020 import value reached USD 12.66 billion. This figure is up 17.40 percent compared to October 2020. In details, oil and gas imports have increased by 0.59 percent to USD 1.08 billion. Meanwhile, non-oil and gas imports rose 19.27 percent to USD 11.58 billion. For consumption, the increase was 25.52 percent or USD 1.30 billion. The main imported commodities for consumer goods are garlic from China, boneless of bovine animals in frozen form imported from India, medicines from India, fresh apples from China, and finally the laser system from Singapore. Then for raw or auxiliary materials, the increase was 13.02 percent or USD 8.93 billion, capital goods rose 2.43 percent or USD 2.43 billion. Capital goods imported were machinery from China, so that Indonesia's total imports by use

of goods increased by 17.40 percent or USD 12.66 billion.

The increase in imports came from commodities of electrical machinery and equipment, precious metals, jewelry and gems, machinery and mechanical equipment, and others. While those that fell were sugar and confectionery, mineral fuels, live animals, and others. Based on the country of origin of imports, the decline in non-oil and gas imports occurred from China reaching USD 1.09 billion, Japan USD 226 million, Hong Kong USD 124.6 million, Canada USD 92.7 million, and Taiwan USD 84.9 million. On the other hand, imports increased from Ukraine by USD 76.9 million, Singapore USD 65.7 million, Malaysia USD 49.4 million, Hungary USD 49 million, and the United Arab Emirates USD 27.4 million.

The data shows export growth in 2018 there was a cumulative increase from January-December of around US\$180.06 billion or 6.65 percent compared to the 2017 period. Meanwhile, non-oil and gas exports reached US\$162.65 billion, an increase of 6.25 percent. From this increase, it can be seen that the growth in exports and imports has increased from year to year so that the logistics sector still has broad growth. Therefore, as a 3rd party logistics, which means that the company's sustainability depends on clients from other companies who use outsourced services to deliver their goods, if the company can provide excellent service, the company will be reused because it has fulfilled the needs of the customers themselves. In Indonesia, there are many logistics service providers that can provide diverse and competitive services with a number that can reach hundreds of companies. One way to survive the competition in a wide open market is to have loyal customers. Loyal customers are customers who have a tendency to choose a logistics service provider company and

will continue to use it according to Hati and Juliati (2019).

Loyalty to a brand itself is an important element for the company. According to Kotler and Keller (2009: 386), it is a commitment to repurchase a preferred product or service in the future regardless of situational influences and marketing efforts that cause behavioral switching. Customer satisfaction is one of the important factors in company performance which has been proven by many studies as revealed by Suchanek and Kralova (2015). Customer satisfaction or customer satisfaction reflects customer assessment. If the products provided by the company as a service provider cannot meet consumer expectations, it will cause disappointed consumers. Consumers have demands or conditions for the products they pay for when. In the delivery services context, customer satisfaction is influenced by logistics service quality. This is because LSQ is an indicator of logistics performance that helps in producing customer satisfaction. According to Mentzer et al. (2001:83), Logistic Service Performance becomes the main component that builds customer satisfaction. Therefore, to satisfy customers, several dimensions are needed in Logistic Service Quality according to Mentzer et.al. (2001) such as Personnel Contact Quality where the priority is the relationship between workers and customers who are even closer, and workers can be more concerned with what customers say. Next is Information Quality where the company can provide clear information to customers and fulfill what they need, continuing on Order Quality is how well a company's service works, Order Releases Quantities relate to the company's ability to meet the quantity needs of customer requests, Ordering Procedures relate to effectiveness and the efficiency of the procedures carried out by the company, Order Accuracy talks about whether the customer's request is the same as the delivery from the company, the Order Condition itself is the condition of the goods that must be kept intact until the destination, Order Disrepancy handling how the company reacts to damage or errors from the delivery of goods. Timeliness is the last thing that matters because Timeliness itself looks at the processing time from the beginning of the order to the completion of delivery, here the speed and accuracy of employee work will have a big effect on customer satisfaction.

The focus of the research refers to one of the shipping service companies in Indonesia, namely PT XYZ Surabaya. The company was founded in 2000. For several years this company has dedicated itself to serving customers and has a high service value. Customers who are registered as users of the company's services are engaged in various fields such as the machinery sector, iron sector, timber sector and oil and gas sector. There are two types of customers who use freight forwarding services, namely from the direct company and other exporters / importers who cooperate with PT XYZ Surabaya in making deliveries. Thus, it can be said that the company PT XYZ Surabaya focuses on business to business services as a service partner in freight forwarding services. This company is also a logistics company that has long been engaged in goods delivery services, either by land, sea or air. But the choice of their superior service is shipping goods by sea. This company has many branches in various places besides Surabaya, one of which is Bali, Semarang and Jakarta.

PT XYZ Surabaya is the subject of research because this company is still in the development stage with services and the number of companies is growing and to develop the company needs loyal customers, so they need more depth to satisfy consumers to use their services repeatedly with the dimensions of Logistic Service Quality. PT XYZ is a member of the Freight Express Group which operates in Surabaya. In running its business, PT XYZ Surabaya has a better tendency in the field of freight forwarding services which causes a high level of

customer loyalty to those in the Freight Express group of companies.

Based on this background, it can be concluded that Logistic Service Quality is very important in creating Satisfaction and Loyalty. The update in this study that did not exist in the three preliminary studies is the relationship between dimensions in the LSQ that affects Loyalty mediated by Satisfaction. Based on the background explanation above, this study aims to examine the effect of the dimensions in the LSQ that contribute to increasing Loyalty and Satisfaction. This study aims to conduct testing and analysis related to the role of Logistic Service Quality on Loyalty by considering Satisfaction as a mediation to customers at PT XYZ Surabaya.

# Literature Review and Hypothesis Development

# Influence of Personnel Contact Quality on Satisfaction

Personnel Contact Quality greatly affects retailer orientation more than company sales. Specifically, retailers seem to care if their service personnel have more knowledge, can empathize and help with their problems. Parasuraman, Zeithaml, and Berry, (1985) emphasized that quality perception is usually formed during service delivery. Therefore, Personnel Contact Quality becomes an important aspect of sales and retailer relationships (Hartline and Ferrell, 1996). In the research of Saura et al (2008) it is said that the LSQ dimension, one of which is the Personnel Contact Quality dimension, has positive results and has a significant influence on Satisfaction. Meanwhile, Sutawidjaya & Yulianti (2010) said that Personnel Contact Quality has an effect on customer satisfaction. The better the quality of personnel owned by PT.XXX Logistics Indonesia, the higher the level of customer satisfaction. In Personnel Contact Quality, the priority is customer service personnel who have sufficient knowledge, have empathy to understand their situation and help solve their problems (Kamble, Raut, Dhume, 2011:83)

H1. Personnel Contact Quality affects Satisfation

# **Effect of Information Quality on Satisfaction**

Information Quality is the concept of information the company provides about the product or service that tends to be selected by the customer. (Novack, Rinehart, & Langley, 1994; Rinehart, Cooper, & Wagenheim, 1989), when information is available and of sufficient quality, customers can use the information to make decisions. The quality of the information itself is related to the customer's perception of the information provided. When the information is available and has sufficient clarity, the customer can use the information to make decisions (Mentzer et al., 2001). In the research of Saura et al (2008), it is said that the LSQ dimension, one of which is the Information Quality dimension, has positive results and has a significant influence on Satisfaction. Information Quality itself must be correct, accurate and available so that it can be an influence in consumer decision making (Kamble, Raut, Dhume, 2011:83)

H2. Information Quality has an effect on Satisfaction.

## **Effect of Order Quality on Satisfaction**

Overall Order Quality provides goods that are delivered or

desired by customers in good condition and not damaged so that customer satisfaction is still achieved. In the research of Saura et al (2008) it is said that the LSQ dimension, one of which is the Order Quality dimension, has positive results and has a significant influence on Satisfaction. Sutawidjaya & Yulianti (2010) suggested that Order Quality has an effect on consumer satisfaction. The better the delivery of goods from PT. XYZ Logistic Surabaya, the higher the Order Quality. Quality of order looks at product specifications and customer needs. In this case, it is the attribute regarding the customer's perception of the logistics service provider for the goods sent (Mentzer et al, 2001:85)

H3. Order Quality affects Satisfaction

### **Effect of Timeliness on Satisfaction**

Timeliness is more about seeing whether the order arrives at the customer's place as promised. Broadly, timeliness also includes the time period between ordering and receiving, so that if everything is on time as the customer wishes, the customer can remain satisfied. It also refers to how consumer orders can arrive at the desired location as promised. Mentzer et al, (2001:85) emphasized this kind of delivery time is affected by transportation. Saura et al (2008) suggested that the LSQ dimension, one of which is the Timeliness dimension, has positive results and has a significant influence on Satisfaction. According to Sutawidjaya & Yulianti (2010), timeliness affects consumer satisfaction. The increase in the delivery time of goods from PT.XYZ Logistics Surabaya tends to develop a level of consumer satisfaction.

H4. Timeliness affects Satisfaction

# Effect of Order Discrepancy Handling on Satisfaction

ODH is more concerned with how the company handles orders or shipments if something goes wrong. The better the handling, the more helpful it is for customers who have problems in shipping. In ordering if the customer gets inaccuracies, in poor condition and quality then the customer will contact the company. Customer perception of service quality depends on how the problem is handled (Mentzer et al, 2001:85). Sutawidjaya & Yulianti (2010) in their study found that Order Discrepancy Handling had an effect on consumer satisfaction. The better the problem solving in the delivery and receipt of goods from PT. XYZ Logistics Surabaya, the higher the level of customer satisfaction.

H5. Order Discrepancy Handling has an effect on Satisfaction

### **Effect of Satisfaction on Loyalty**

Companies measure their service performance using customer satisfaction surveys. Anderson and Mittal (2000) emphasized that the implementation of the loyalty-satisfaction relationship is regarded as a firm problem. Therefore, changes in overall satisfaction scores failed to lead to increased retention. For customers, satisfaction alone is not sufficient to produce a loyal relationship (Kandampully 1998). Ho et al, (2012) emphasized that customer satisfaction is caused by the comparison between the desired and perceived services. According to Delafrooz et al, (2013) in the quote Lykogiannis

(2014) customer satisfaction can also be defined as a positive feeling experienced by a consumer after using an item or service.

Lykogiannis (2014) through his research shows that customer satisfaction is an important factor in the future tendency to repurchase, also sometimes satisfied consumers will enthusiastically talk and tell about the good experiences they got when getting goods or services to other people. this will certainly lead to positive thinking. Lau et al, (2013) suggest that customer satisfaction can have an impact on the relationship between the buying phenomenon and attitude changes after purchase and repurchase or repurchase. Semuel and Wijaya (2009) through their research found the influence of satisfaction on customer loyalty at PT. Indonesian Railways. Saura et al (2008) said that the Satisfaction dimension has a positive result and a significant influence on Loyalty. Huang et al. (2015) through SEM analysis found that satisfaction has a positive effect on customer loyalty.

H6. Satisfaction has a significant effect on Loyalty

# Influence of Personnel Contact Quality on Loyalty mediated by Satisfaction

According to Saura, Frances, Contri, & Blasco (2008), LSQ which is associated with Timeliness and Personnel, as well as Information and Order Quality positively affects Satisfaction and Loyalty. This indicates that the influence of Personnel Contact Quality is quite large on satisfaction which will later be lead to customer loyalty. Because the core of Personnel Contact Quality is the quality of its Customer Relations. Furthermore, Saura et al (2008) said that the LSQ dimension, one of which is the Personnel Contact Quality dimension, has positive results and has a significant influence on Satisfaction and Loyalty.

H7. Personnel Contact Quality affects Loyalty

# Effect of Information Quality on Loyalty Mediated by Satisfaction

Angeline (2016) conducted research on Fedex showing that Information Quality has a positive influence on loyalty. It can be seen from the research subject who is engaged in package delivery, that there is an influence of Information Quality on satisfaction mediated loyalty. In the research of Saura, Frances, Contri, & Blasco (2008), Information Quality positively affects Satisfaction and Loyalty. This indicates that Information Quality largely influences satisfaction which leads to customer loyalty due to the clarity of information provided by the company.

H8. Information Quality has a significant effect on Loyalty mediated by Satisfaction

# The Mediation Role of Satirfaction on the Relationship between Order Quality and Loyalty

According to Saura, Frances, Contri, & Blasco (2008), LSQ which is associated with Timeliness and Personnel, as well as Information and Order Quality significantly affects Satisfaction and Loyalty. This indicates that the influence of Order Quality is quite large on satisfaction which will later lead to customer loyalty due to the success of the staff in maintaining the quality

of goods to avoid damage. In the research of Saura et al (2008) it is said that the LSQ dimension, one of which is the Order Quality dimension, has positive results and has a significant influence on Satisfaction and Loyalty.

H9. Satisfaction mediates the influence of Order Quality on Loyalty

# The Mediation Role of Satirfaction on the Relationship of Timeliness and Loyalty

Angeline's research (2016) conducted on fedex shows that timeliness has a positive and significant influence on loyalty. It can be seen from the research subject who is engaged in package delivery, that there is an influence of Timeliness on satisfaction mediated loyalty. In the research of Saura, Frances, Contri & Blasco. (2008) Timeliness has a clear, positive and significant influence on Satisfaction and Loyalty, meaning that timeliness has a large enough influence on satisfaction which will lead to customer loyalty because the timeliness is always fulfilled. In the research of Saura et al (2008) it is said that the LSQ dimension, one of which is the Timeliness dimension, has positive results and has a significant influence on Satisfaction and Loyalty.

H10. Satisfaction mediates the influence of Timeliness on

Loyalty

# The Mediation Role of Satirfaction on the Relationship between Order Discrepancy Handling and Loyalty

Angeline's research (2016) conducted on Fedex shows that Order Discrepancy Handling has a positive and significant influence on loyalty. Although this dimension gets the lowest value for loyalty, it still has an effect on loyalty. It can be seen from the research subjects who are engaged in package delivery, that there is an influence of Order Discrepancy Handling on satisfaction mediated loyalty.

H11. Satisfaction mediates the effect of Order Discrepancy Handling on Loyalty.

#### **Research Framework**

Figure 1 shows the influence of interrelated variables according to the research objectives. Where Personnel Contact Quality, Information Quality, Order Quality, Timeliness and Order Discrepancy Handling affect Loyalty mediated by Satisfaction.

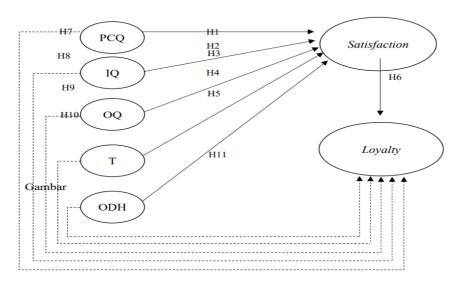


Fig: Research Framework

#### **Research Method**

The type of research used in this research is quantitative research. This study consisted of five exogenous variables and two endogenous variables:

The exogenous variable (X) is Logistic Service Quality, consisting of:

Personnel Contact Quality (X1) Information Quality (X2) Order Quality (X3)

Timeliness (X4)

Order Discrepancy Handling (X5)

Intervening variables, consisting of: Satisfaction (Y1)

Endogenous variables, consisting of: Loyalty (Y2)

# Operational Definition of Variables Logistics Service Quality

LSQ stands for Logistic Service Quality, which refers to aspects that can examine the service quality of the logistics service industry. LSQ is used in research on the distribution of goods that focuses on operational attributes that can be physically observed, especially to pay attention to unobserved values such as the value felt by consumers when using goods or services (Mentzer et al, 2001:10)

## **Personnel Contact Quality**

Personnel Contact Quality means that customers will care more if the customer service personnel have sufficient knowledge, have empathy to understand their situation and help solve their problems. Assessment items in the Personnel Contact Quality questionnaire according to Kamble, Raut, & Dhume (2011:83):

- Representatives of service providers trying to understand the condition of service users (PCQ1)
- Service provider representatives can solve problems (PCQ2)
- Representatives of service providers who are reliable and have sufficient understanding of the information on the services provided (PCQ3)

## **Information Quality**

Customers become aware of the information the suppliers provide about their products or services. Assessment items in the Information Quality questionnaire according to Kamble, Raut, Dhume (2011:83) and Hati, & Juliati (2019:244):

- 1. Service information catalog available (IQ1)
- 2. Service information catalog is adequate (IQ2)
- 3. Information regarding the delivery process and others is accurate and correct (IQ3)

# **Order Quality**

Order Quality is defined as the level of quality of the product or service working, including how well they make the product or service according to customer needs. Assessment items in the Order Quality questionnaire according to Kamble, Raut, Dhume (2011:84):

- Replacement service products from service providers that work well (OQ1)
- Service products from service providers meet delivery service requirements (OQ2)
- Service products from service providers are often appropriate (OQ3)

#### **Timeliness**

When the order arrives on time to the customer at the promised time. Timeliness is the time period from ordering to receipt. Assessment items in the Timeliness questionnaire according to Kamble, Raut, Dhume (2011:84):

- 1. The time required for delivery of goods is short (T1)
- 2. Delivery time as promised (T2)
- The time required to make a request at the time of reorder is short (T3)

# **Order Discrepancy Handling**

Order Discrepancy Handling Is the handling of inaccuracies or differences in orders where what is seen is how well the company handles this problem, so the customer perception of the company's service quality. Assessment items in the Timeliness questionnaire according to Kamble, Raut, Dhume

#### (2011:84):

- 1. Satisfactory complaint handling (ODH1)
- 2. Adequate in-process change reporting (ODH2)
- 3. Response to complaints reports satisfactory (ODH3)

#### Satisfaction

The company performance that leads to satisfaction makes the customer repurchase, recommend the products to people, and accept other products in the same brand. Assessment items in the Satisfaction questionnaire according to Mentzer, Flint, & Hult (2001):

- 1. Excellent in providing services (S1)
- 2. Satisfied with service providers (S2)
- 3. Satisfied in using services from service providers (S3)

## Loyalty

Customer loyalty is often described as a deep bond or commitment to a product, service, brand or organization when customer loyalty moves, they have a focus on repeat purchasing. The assessment items in the Loyalty questionnaire according to Hati & Juliati (2019:245):

- 1. Recommend this service provider to others (L1)
- As a customer will remain loyal to this service provider (L2)
- Provide good feedback as a customer to others on this service provider. (L3)

## Population, Sample and Sampling Technique

The population in this study is the people of Surabaya and outside Surabaya who use the services of PT XYZ Surabaya. According to Sinambela (2014:94), the sample becomes part of the number and characteristics of the population. In this study, the sample is the people within and outside Surabaya who have used the services of PT XYZ Surabaya. According to Hair, et al., (1995, in Ghozali and Fuad, 2005:13), the minimum sample is a total of 5 multiplied by the number of indicator variables. The number of indicators in this study is 21, if the number of samples uses 5 times the number of indicators, then the calculation is 21 x 5 = 105 respondents. Thus, the number of samples used in this study was 105

A larger number of respondents is expected to reduce bias and invalid data. This study used non-probability and purposive sampling techniques. According to Sinambela (2014: 102), non-probability sampling is a technique that fails to provide equal opportunities for all respondents. While purposive sampling according to Sinambela (2014: 103), is sampling based on certain considerations and for certain purposes only. Thus, the sample in this study has the following characteristics:

Companies or agencies that have used the services of PT XYZ Surabaya

The domicile of the company is at:

Surabaya

Outside Surabaya

Using the services of PT XYZ Surabaya in the last one year Using the services of PT XYZ Surabaya more than once

## **Data Sources and Data Analysis Techniques**

This study uses quantitative data types and data was obtained from the respondents' answers to the questionnaire. The primary data used in this study were obtained directly from respondents, namely consumers who have used the services of PT XYZ Surabaya. The data processing in this study is structural equation modeling (SEM). SEM itself is an amalgamation of the simultaneous equation regression model developed in econometrics and the measurement model developed in psychology and sociology. The measurement, overall, and structural models are tested in SEM. Additionally, this study used path analysis to analyze the relationship between existing variables

# **Overview of Research Objects**

In this study, the focus of research refers to one of the shipping service companies in Indonesia, namely PT XYZ Surabaya. The company was founded in 2000. For several years this company has dedicated itself to serving customers and has a high service value. Customers who are registered as users of the company's services are engaged in various fields such as the machinery sector, iron sector, timber sector and oil and gas sector. There are two types of customers who use freight forwarding services, namely from the direct company and other exporters / importers who cooperate with PT XYZ Surabaya in making deliveries. Thus, it can be said that the company PT XYZ Surabaya focuses on business to business services as a service partner in freight forwarding services. This company is also a logistics company that has long been engaged in goods delivery services, either by land, sea or air. But the choice of their superior service is shipping goods by sea. This company has many branches in various places besides Surabaya, one of which is Bali, Semarang and Jakarta.

PT XYZ Surabaya is the subject of research because this company is still in the development stage with services and the number of companies is growing and to develop the company needs loyal customers, so they need more depth to satisfy consumers to use their services repeatedly with the dimensions of Logistic Service Quality. PT XYZ Surabaya is a member of the Freight Express Group which operates in Surabaya. In running its business, PT XYZ Surabaya has a better tendency in the field of freight forwarding services which causes a high level of customer loyalty to those in the Freight Express group of companies. Therefore, it is hoped that this research can explore the causes of the high level of customer loyalty which can then be an example and reference for other company members.

## **Results of Data Analysis**

Data were analyzed using Structural Equation Modeling (SEM) with LISREL software. According to Curran et al in Ghozali & Fuad (2008:37) the data is said to be normally distributed if the skewness value is < 2 and the kurtosis value is < 7, then based on the results of this test, the Skewness value is 0.127 and the Kurtosis value is 0.639. , and Skewness and Kurtosis have a p-value of 0.279, so it can be concluded that with the fulfillment of the requirements for skewness < 2 and the

value of kurtosis < 7, the tested data shows normal data. Furthermore, an indicator becomes valid to measure latent variables provided the standardized loading factor is 0.7 and above (Hair, et al, 1995; in Yamin and Kurniawan, 2009:36). The increase in the loading factor coefficient tends to develop the indicator accuracy. In this study, the validity test results showed that the indicator become valid because the t value is > 1.96. However, reliability is the understanding that the instrument used in obtaining the desired information can be trusted. The results indicated that the construct reliability values of all variables are > 0.70. Therefore, all variables in this study can be used for further analysis because they are reliable.

## **Structural Equation**

The structural equation is used to examine the relationship between the variables that were previously hypothesized. In this study, a structural equation is employed as a structural model fit test, such as:

 $S = 0.219*PCQ + 0.228*IQ + 0.349*OQ + 0.220*T + 0.353*ODH, Errorvar.= 0.391 \; , \; R^2 = 0.631$ 

L = 0.400\*S, Errorvar.= 1.107, R<sup>2</sup> = 0.133 (0.124) (0.240) 3.230 4.608

Source: Appendix 4, data processed, 2021

Based on these structural equations, it can be explained as follows:

- Personnel Contact Quality (X1) has a positive effect on Satisfaction (Y1).
- 2. Information Quality (X2) has a positive effect on Satisfaction (Y1).
- Order Quality (X3) has a positive effect on Satisfaction (Y1)
- Timeliness (X4) has a positive effect on Satisfaction (Y1)
- 5. Order Discrepancy Handling (X5) has a positive effect on Satisfaction (Y1).
- 6. Satisfaction (Y1 has a positive effect on Loyalty (Y).

#### **Goodness of Fit Criteria Evaluation Results**

Kusnendi (2008:13) emphasized that two issues are considered while testing the model. The first is to examine the suitability of the overall model, and the second is to individually test the significance of the model parameter results. Meanwhile, the first test is closely related to the extent to which the results of model parameters can be used on the population. The second issue relates to the analysis of the proposed research hypothesis. In LISREL, the first test is performed using the Goodness of Fit Test (GFT) measure. According to Hair, et al. (1998:660; in Sitinjak and Sugiarto, 2006:67), several measures of the degree of compatibility are used to support each other.

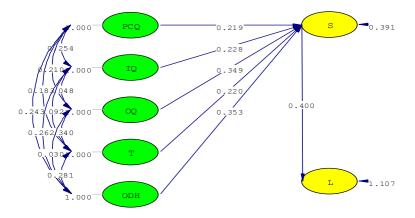
The results of the goodness of fit test are as follows:

Goodness of Fit Indeks	Hasil	Cut off Value	Keterangan
RMSEA	0,029	0,05-0,08	FIT
Chi Square	202,004	Lihat Prob.	FIT
Prob	0,202	> 0,05	FIT
CMIN/DF	1,168	>0,2	FIT
GFI	0,853	0,80 - 0,90	FIT
AGFI	0,804	0,80 - 0,90	FIT
TLI	0,983	> 0,90	FIT
CFI	0,982	> 0,90	FIT

Table 1: Ikhtisar Goodness of Fit

Based on Table 1, all goodness of fit values are good, in accordance with the cut of value. Thus it can be said that the

empirical data used is in accordance with the conceptual framework.



Chi-Square=188.30, df=173, P-value=0.20184, RMSEA=0.029

Figure 1: Lisrel . Structural Analysis Model

## **Direct Effect Hypothesis Testing**

The research hypothesis testing was carried out based on

the results of the analysis of causality relationships between research constructs, as presented in Table 2 below:

No.		Koefisien	t-Value	Keputusan
1	Personnel Contact Quality X1 → Satisfaction Y1	0.219	2.313	Signifikan
2	Information Quality X2 → Satisfaction Y1	0.228	2.385	Signifikan
3	Order Quality X3 → Satisfaction Y1	0.349	3.503	Signifikan
4	Timeliness X4 → Satisfaction Y1	0.220	2.245	Signifikan
5	Order Discrepancy Handling X5 → Satisfaction Y1	0.353	3.494	Signifikan
6	Satisfaction Y1 → Loyalty Y2	0.400	3.230	Signifikan

Table 2: Results of Testing the Direct Effect of the Research Hypothesis

Table 2 shows that all t-values > 1.96, indicating that (1) Personnel Contact Quality positively affects Satisfaction. (2) Information Quality significantly influences Satisfaction. (3) Order Quality positively affects the Satisfaction variable. (4) Timeliness significantly influences Satisfaction. (5) Order Discrepancy Handling positively affects Satisfaction. (6) Satisfaction significantly influences Loyalty.

# **Indirect Effect Hypothesis Testing**

The calculation of the coefficient of mediating influence or indirect effect is the result of multiplying the direct effect, while to find out the significance of the indirect effect, it is known through the t-value, where the significance test criteria with ttable is 1.96 then the lambda value is significant. The results of testing the indirect effect hypothesis are shown in Table 2 below:

No.		Koefisien	t-Value	Keputusan
1	Personnel Contact Quality X1 → Satisfaction Y1 → Loyalty Y2	0.087	1.923	Tidak Signifikan
2	Information Quality X2 → Satisfaction Y1 → Loyalty Y2	0.091	1.964	Signifikan
3	Order Quality X3 → Satisfaction Y1 → Loyalty Y2	0.139	2.462	Signifikan
4	Timeliness X4 → Satisfaction Y1 → Loyalty Y2	0.088	1.884	Tidak Signifikan
5	Order Discrepancy Handling X5 → Satisfaction Y1 → Loyalty Y2	0.141	2.459	Signifikan

Table 3: Results of Testing the Indirect Effect of Research Hypotheses

Based on the data in table 3, it can be explained that: (1) Personnel Contact Quality has no significant effect on the Loyalty variable through Satisfaction. (2) Information Quality significantly influences the Loyalty variable through Satisfaction. (3) Order Quality positively affects the Loyalty variable through Satisfaction. (4) Timeliness failed to significantly influence the Loyalty variable through Satisfaction (5) Order Discrepancy Handling has a significant effect on the Loyalty variable through Satisfaction on customers at PT XYZ in Surabaya.

## **Finding and Discussion**

# Influence of Personnel Contact Quality on Satisfaction

Based on the results of the study, the findings in this study are that Personnel Contact Quality has a significant influence on Satisfaction. This can be seen from the t-value of 2.313 or > 1.96, which means that Satisfaction can be increased by the presence of significant good Personnel Contact Quality. In testing the hypothesis, it is proven that Personnel Contact Quality has a positive effect on satisfaction. This means that if personnel contact quality increases, it will also increase satisfaction. This can be a reference for PT XYZ in Surabaya to improve customer satisfaction by paying attention to the extent to which the quality of workers in dealing with customers related to the management of delivery of goods.

The results of this study are in line with Hartline and Ferrell (1996) that personnel contact quality is an important aspect of the relationship between sales and retailers. This is because, customers will be more concerned if customer service personnel have sufficient knowledge, have empathy to understand their situation and help solve their problems. The findings in this study are also in line with the findings by Sutawidjaya & Yulianti (2010) which said that Personnel Contact Quality had an effect on consumer satisfaction. Furthermore, the increase in the quality of the personnel owned tends to develop the level of customer satisfaction.

The results of this study are in line with Saura et al. (2008) that the LSQ dimension such as the Personnel Contact Quality significantly influences satisfaction. According to the theory, Personal Contact Quality refers to consumer orientation towards service providers and is specific about how they can understand service products, empathize with consumer conditions, and help consumers to solve problems with the services offered. Several studies say that interaction with service providers is also important to support customer satisfaction. This personal interaction can reflect the quality of employees and the ease with which consumers can interact with service providers (Mentzer et al, 2001:84).

## **Effect of Information Quality on Satisfaction**

The results of this study showed that Information Quality positively affects Satisfaction. This can be seen from the t-value of 2,385 or > 1.96, which means that satisfaction can be increased through good Information Quality. The results of hypothesis testing indicate that Information Quality has a significant positive effect on satisfaction. This finding can be interpreted that the better the available information quality, the more satisfaction will be increased. By looking at these findings, it can be a reference for PT XYZ in Surabaya to be able to increase customer satisfaction through improving the quality of information provided in a clearer, more complete, and detailed manner. Mentzer et al (2011) explained that when the information is available and has sufficient clarity, customers can use the information to make decisions. This finding is in line with the research of Saura et al (2008) which proved in their research that the LSQ dimension, one of which is the Information Quality dimension, has positive results and has a significant influence on satisfaction. Information Quality itself must be correct, accurate and available in order to be an influence in consumer decision making (Kamble, Raut, Dhume 2011:83).

# **Effect of Order Quality on Satisfaction**

The results of this study showed that Order Quality significantly influences Satisfaction. This can be seen from the t-value of 3.503 or > 1.96, which means that Satisfaction can be formed with the implementation of good Order Quality. Order quality positively affects satisfaction, indicating that good order quality tends to increase customer satisfaction. Overall Order Quality provides goods that are delivered or desired by customers in good condition and not damaged so that customer satisfaction is still achieved. This finding can be the basis for PT XYZ in Surabaya who wants to increase customer satisfaction to provide better quality delivery to customers without any damage. According to Mentzer et al (2001:85), quality of order refers to product specifications and customer needs. In this case, it is an attribute regarding the customer's perception of the logistics service provider for the goods sent. The results of this study support the findings of research conducted by Saura et al (2008) which proves in their research that the LSQ dimension, one of which is the Order Quality dimension, has positive results and has a significant influence on satisfaction. The results of this study also support previous research from Sutawidjaya & Yulianti (2010) where in their research it is proven that Order Quality has an effect on consumer satisfaction.

### The Effect of Timeliness on Satisfaction

The results of this study showed that Timeliness positively affects Satisfaction. This can be seen from the t-value of 2.245 or > 1.96, which means that satisfaction can be affected by the presence of good timeliness. Tmeliness can increase customer satisfaction. Timeliness is the time period from ordering to receipt. Timeliness is the time taken between placing an order and receiving it. This also refers to how consumer orders can arrive at the desired location as promised. So that the findings in this study can be a reference for PT XYZ in Surabaya who want to increase customer satisfaction so that they can pay more attention to how the time level is used for the ordering process, delivery, to receipt to customers. Broadly, timeliness also includes the time period between ordering and receiving. so that if everything is on time as the customer wishes, the customer can remain satisfied. The findings in this study are in line with the findings of research conducted by Sutawidjaya & Yulianti (2010) which proves in their research that Timeliness has an effect on consumer satisfaction. Furthermore, the results are in line with Saura et al. (2008) that Timeliness significantly influences satisfaction.

# Effect of Order Discrepancy Handling on Satisfaction

Order Discrepancy Handling has a positive effect on Satisfaction. This can be seen from the t-value of 3.494 or > 1.96, which means that Satisfaction can be formed with good Order Discrepancy Handling. The better the company in implementing order discrepancy handling, the more it will be able to increase customer satisfaction as well. If PT XYZ in Surabaya wants to create a feeling of satisfaction for customers, it is very important for PT XYZ in Surabaya to be able to handle differences in orders where what is seen is how well the company mentions differences in orders after the order arrives. The better the handling, the more helpful it is for customers who have problems in shipping. In ordering if the customer gets inaccuracies, in poor condition and quality then the customer will contact the company. Customer perception of service quality depends on how the problem is handled (Mentzer et al, 2001:85). The results in this study are in line with the findings of research conducted by Sutawidjaya & Yulianti (2010) where in their research it is proven that Order Discrepancy Handling has an effect on consumer satisfaction. The better the problem solving in the delivery and receipt of goods from PT. XYZ Logistics Surabaya, the higher the level of customer satisfaction.

## **Effect of Satisfaction on Loyalty**

Satisfaction has a significant effect on Loyalty. This can be seen from the t-value of 3.230 or > 1.96, which means that loyalty can be formed with good satisfaction. Satisfaction positively affects loyalty. This positive influence can be interpreted that the higher the perceived satisfaction, the more it will increase loyalty. Thus, if PT XYZ in Surabaya wants to increase customer commitment to repurchase or re-check the recommended products or services consistently in the future to give more pleasure to customers. This is in line with Kotler and Keller (2012: 128) that customers are not satisfied when the company's performance failed to match their expectations. Conversely, the customer becomes satisfied or happy provided the performance exceeds expectations. The results in this study are in line with the findings of Semuel and Wijaya (2009) which prove in their research that there is an influence of satisfaction

on customer loyalty at PT. Indonesian Railways. The same result is also proven by Saura et al (2008) which proves that the Satisfaction dimension has positive results and has a significant influence on Loyalty. Likewise Huang et al. (2015) which proves through SEM analysis that satisfaction has a positive effect on customer loyalty. The results of previous studies are supported by the results of research conducted by researchers.

# The Mediation Role of Satisfaction on the Relationship of Personnel Contact Quality and Loyalty

The results of this study showed that Personnel Contact Quality failed to significantly affect Loyalty through Satisfaction. This can be seen from the t-value of 1.923 or <1.96. Loyalty can be formed by the presence of Personnel Contact Quality without going through the presence of satisfaction. This is not in line with the opinion of Saura et al (2008) who said in their research that Personnel Contact Quality is quite large for satisfaction which will later lead to customer loyalty.

# The Mediation Role of Satisfaction on the relationship between Information Quality and Loyalty

Information Quality has a significant influence on Loyalty through Satisfaction. This can be seen from the t-value of 1,964 or > 1.96, which means Loyalty can be increased by the presence of Information Quality supported by high satisfaction. The results of this study are in line with Angeline (2016) that Information Quality positively affects loyalty. The results of this study support previous research conducted by Frances, Contri, & Blasco (2008) which also proves that Information Quality has a clear, positive and significant influence on Satisfaction and Loyalty.

# The Mediation Role of Satisfaction on the Relationship between Order Quality and Loyalty

aOrder Quality has a significant influence on Loyalty through Satisfaction. This can be seen from the t-value of 2.462 or > 1.96, which means

Loyalty is known to be significantly influenced by the existence of good Order Quality and is also supported by high satisfaction. According to Frances, Contri, & Blasco. (2008), the influence of Order Quality is quite large on satisfaction which will later lead to customer loyalty due to the success of the staff in maintaining the quality of goods to avoid damage. The results of this study are in line with Saura et al. (2008) that Order Quality significantly influences Satisfaction and Loyalty.

# The Mediation Role of Satisfaction on the Relationship of Timeliness and Loyalty

Timeliness failed to positively affect Loyalty through Satisfaction, indicating that satisfaction does not mediate the relationship between Timeliness and Loyalty. Based on the results of hypothesis testing that has been done, it means that loyalty can be formed with good timeliness without going through

satisfaction. This is not in line with the opinion of Saura, Frances, Contri, & Blasco (2008) who proved in their research that Timeliness has a clear, positive and significant influence on Satisfaction and Loyalty, meaning that the influence of timeliness is quite large on satisfaction which will later lead to loyalty from customers because of the punctuality that is always met.

# The Mediation Role of Satisfaction on the Relationship between Order Discrepancy Handling and Loyalty

Order Discrepancy Handling has a positive influence on Loyalty through Satisfaction. This can be seen from the t-value of 2,459 or > 1.96, meaning that Loyalty can be formed with good Order Discrepancy Handling and supported by satisfaction. The results in this study are in line with the findings of Angeline (2016) which shows that Order Discrepancy Handling has a positive and significant influence on loyalty.

#### Conclusion

This Personnel Contact Quality must be met properly so that customer satisfaction occurs. Customers will be more concerned if customer service personnel have sufficient knowledge, have empathy to understand their situation and help solve their problems. Information Quality must be met properly so that customer satisfaction occurs. This is because when the information is available and has sufficient clarity, customers can use the information to make decisions. This variable is also the client's path to get accurate and correct information about the company's services and delivery from the company so that with accurate and correct information, the Information Quality will also improve on Satisfaction. Order Quality must be fulfilled properly so that customer satisfaction occurs. This is because Order Quality provides the goods sent or desired by the customer in good condition and not damaged so that customer satisfaction is still achieved. This variable is also a client reorder in using the company's services that have been used previously so that with the ease of reordering, the Order Quality will also be better for Satisfaction. This timeliness must be fulfilled properly so that customer satisfaction occurs. Timeliness refers to the time it takes between placing an order and receiving it. It also refers to how consumer orders can arrive at the desired location as promised. Order Discrepancy Handling must be fulfilled properly so that customer satisfaction occurs. This is because in ordering if the customer gets an inaccuracy, in poor condition and quality, the customer will contact the company. Customer perception of service quality depends on how the problem is handled. This variable is also the company's way of making improvements or justifications for shipping errors made by the company so that with proper handling and in accordance with shipping errors made by the company, the better Order Discrepancy Handling will be for Satisfaction. The satisfaction must be fulfilled properly in order for customer loyalty to occur. This is because customers are not satisfied when the company's performance failed to match their expectations. Conversely, the customer becomes satisfied or happy provided the performance exceeds expectations. This variable is also a client's satisfaction with the company's performance so that loyalty can occur so that the higher the level of client satisfaction from the company's performance, the better the Satisfaction towards Loyalty.

Based on the results and the conclusions obtained, several suggestions tends to be developed for the parties interested in

this study. It is hoped that PT XYZ in Surabaya can better understand the conditions of service delivery, resolve problems that occur during delivery and provide a more adequate catalog of information so that it will cause customers to be satisfied and choose to continue using PT XYZ's services in Surabaya in the future. For other companies engaged in Freight Forwarding services, it is important to understand the three dimensions that influence satisfaction-mediated loyalty, such as Information Quality, Order Quality and Order Discrepancy Handling. This means that when the quality of information, the quality of reordering and justification of ordering errors is done well, customer satisfaction increases and loyalty arises. Customers should be able to determine whether they will be loyal or not to a company by looking at three influential dimensions such as Information Quality, Order Quality and Order Discrepancy Handling. For further research, it is hoped that other independent variables can be used which are thought to affect the size of loyalty so that more complete information will be obtained on the factors that can positively affect Satisfaction.

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