

## Predicting the Impact of Customer Value as a Mediating Influence on Timeliness, Order Fulfillment, Information Quality, Customer Focus in Customer Loyalty

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### Abstract

*The importance of sea transportation and logistics services in supporting the smooth running of foreign trade (exports), then shipping and logistics service facilities are one of the most important. Related to this, many shipping and logistics business sectors have sprung up. The shipping and logistics business sector includes an activity using ships or air to transport goods from one country to another. Objective – To analyze the Predicted Impact of Customer Value as a Mediating Influence on Timeliness, Order Fulfillment, Information Quality, Customer Focus in Customer Loyalty. Because customer loyalty is a concept of marketing objectives that provide the continuity of the company to obtain the profits. Design / methodology / approach – Based on the objectives to be achieved, this research is an explorative research because the aim is to find and predict the Impact of Customer Value as a Mediating Effect on Timeliness, Order Fulfillment, Information Quality, Customer Focus in Customer Loyalty. This research is the development of problem solving (Malhotra, 2012) which aims to determine the impact prediction on customer loyalty. Findings – The results of this study indicate that the Prediction of Customer Value Impact as Mediating Influence has an indirect influence on Timeliness, Order Fulfillment, Information Quality, and Customer Focus in Customer Loyalty.*

### Keywords

time; order fulfillment; information quality; customer focus; customer value; customer loyalty



## I. Introduction

Basically, export activities are based on the fact that no country in the world can be completely independent and need each other. A country exports its products to other countries that need certain products and cannot fulfill the need for these goods (Reardon, Codron, Busch, Bingen & Harris, 1999).

In the field of economics and business, export is a trade activity where domestic goods and services are sold and sent abroad with the aim of making a profit or export is also an economic activity where there is a process of selling and sending a product (goods or services) from within the country to another country in large quantities (Leamer & Storper, 2014).

The fishing industry is one of the five economic drivers in Indonesia today. Therefore, the government wants to encourage the fishing industry to be more developed (Feekings, O'Neill, Krag, Ulrich, & Veiga Malta, 2019). Indonesia's marine and fisheries sector still faces various challenges, including: a very wide distribution of production and consumption areas, Illegal Unreported and Unregulated (IUU) Fishing activities, the fisheries fleet is still dominated by small-sized vessels, facilities and infrastructure are still limited, and the upstream-downstream production system has not been integrated (Kondolf, & Pinto, 2017).

The importance of sea transportation and logistics services in supporting the smooth flow of foreign trade (exports), so shipping and logistics services are one of the most important (Sheffi, 2013). Related to this, many shipping and logistics business fields have emerged. The shipping and logistics business sector includes an activity using ships or air to transport goods from one country to another (Korinek, & Sourdin, 2011).

## **II. Research Method**

### **2.1 Explore Importance of the Problem**

In essence, the logistics service of PT DMG is a simple activity involving documents processed through a system directly supervised by Customs. And this activity involves sellers and buyers between abroad and within the country. Entrepreneurs must also understand a field such as making other export supporting documents, so that part of the task is usually left to document management and logistics services, namely companies engaged in logistics services and making customers loyal to those who provide these services. Development is a systematic and continuous effort made to realize something that is aspired. Development is a change towards improvement. Changes towards improvement require the mobilization of all human resources and reason to realize what is aspired. In addition, development is also very dependent on the availability of natural resource wealth. The availability of natural resources is one of the keys to economic growth in an area. (Shah, M. et al. 2020)

PT DMG is a company engaged in logistics services that has a wide market share, because PT DMG not only serves the delivery of goods within the domestic scope, but can also serve the delivery of goods within the international scope. This logistics company also carries out the documentation required by the government regulations of export countries, transit countries and import countries. The economic condition of the population is a condition that describes human life that has economic score (Shah et al, 2020). Economic growth is still an important goal in a country's economy, especially for developing countries like Indonesia (Magdalena and Suhatman, 2020).

PT DMG in the last three years, from 2019 to 2021, shows fluctuations in service demand so that the main and strategic problem faced by the company is that the marketing department does not achieve targets in marketing the service products offered. Second, there are customer complaints regarding the problem of late delivery of goods. Third, the operational department is not working optimally, thus hampering the process of sending goods. The problem must be solved in order to maintain customer loyalty so that the goods delivery service company is the first choice by providing the best service and quality and can increase company revenue.

### **2.2 Describe Relevant Scholarship**

Based on the data on the use of PT. DMG services in East Java, Central Java and West Java, it has increased in 2020 but in 2021 it has decreased very sharply, this shows a decrease in customer loyalty to company services, according to the opinion of (Moenardy, Arifin & Kumadji, 2016) regarding the factors that influence customer loyalty are Service Quality, perceived price and customer value, every customer or buyer will see price and quality as one of the measures in assessing a product sold by PT. DMG.

According to (Khan, 2013) loyalty is a deep-seated customer commitment to re-subscribe or repurchase selected products or services consistently in the future, even

though the influence of the situation and marketing efforts have the potential to cause behavior change, so maintaining loyalty for PT. DMG is very important.

Loyalty is closely related to how the services and services provided to consumers give a positive impression and meet customer expectations. Service marketing according to (Andrii, 2015) service marketing is any action offered by one party to another party which is in principle intangible and does not cause any transfer of ownership, PT. DMG in its service in the form of logistics services.

Reducing quality due to choosing the wrong logistics can cause disappointment for customers or buyers (buyers), as well as neglecting the price (Meyer & Schwager, 2007). Therefore, there is a need for a balance of value, in this case focusing on the quality of information, time and order fulfillment that is balanced to create customer value. Customer value can show a positive perception of a service provided by PT DMG. Every product that has good value, both in terms of quality and reputation, will be able to generate customer value. Indicators of customer value that are in accordance with PT DMG include benefits that are in line with expectations, prices that are perceived by customers to be very competitive, customers feel benefited by offering pleasant services.

In addition, comfort and convenience in conditions of heavy demand and other conditions PT. DMG is asked to continue to be able to provide comfort and convenience to customers or buyers (buyers), comfort and convenience due to timely delivery so that it is easy to get goods and products will be able to encourage customers to be loyal and become very positive customer value (Holland & Baker, 2001).

### **2.3 State Hypotheses and Their Correspondence to Research Design**

Based on the background of this problem, the researcher is interested in conducting a study entitled "The Effect of Timeliness, Order Fulfillment, Information Quality, Customer Focus on Customer Loyalty with Customer Value as a Mediating Variable at PT DMG".

## **III. Research Method**

Based on the objectives to be achieved, this research is explorative research because the aim is to find the effect of Time, Order Fulfillment, Information Quality, Customer Focus on Customer Loyalty with Customer Value as a mediating variable. This research is problem solving (Malhotra, 2012) whose purpose is to find out and influence customer loyalty.

In terms of where and how researchers treat research variables, this research was conducted on consumers. Furthermore, in the perspective of the data and methods used, this research is quantitative research. In terms of type, this research is fundamental research because it seeks to create knowledge based on phenomena that occur to be analyzed and solved (Cooper and Shindler, 2006).

### **3.1 Identify Subsections**

According to Sugiyono (2013) Population as the number of generalization areas which include objects / subjects that have certain qualities and characteristics that have been determined by researchers and then a conclusion can be drawn.

### **3.2 Participant (Subject) Characteristics**

In accordance with the explanation above, the population used by researchers is customers who use the services of PT DMG, which are spread across several provinces such as 35 East Java, 8 Central Java and 7 West Java, totaling 50 companies.

### 3.3 Sampling Procedures

Data collection in this study is by using a questionnaire. According to Sugiyono (2017), a questionnaire is a data collection technique that is carried out by giving a set of written questions to respondents to answer. The data obtained from the data collection technique is based on the Effect of Time, Order Fulfillment, Information Quality, Customer Focus on Customer Loyalty with Customer Value as a Mediating variable.

The questionnaire distribution was carried out in 2 ways, namely filling out the questionnaire directly by the respondent with the help of PT Dahlia Mitra Global sales.

#### a. Sample Size, Power, and Precision

According to Sugiyono (2020) Sample is the number and characteristics determined by a population. In addition, Hermawan (2018) argues that the sample is part of a number of populations along with their various characteristics. In this study using saturated samples because the population was 50 people where according to Sugiyono (2018) saturated sampling is a sampling technique when all members of the population are used as samples.

#### b. Measures and Covariates

Variable measurement in this study uses a Likert scale, in which respondents are asked to provide answers to alternative answers. The Likert scale is used to measure the attitudes, opinions and perceptions of a person or group of people about social phenomena Sugiyono (2013). The questionnaire is a number of written questions used to obtain information from respondents in the sense of reports about their personal or known things Arikunto (2019). The questionnaire used in this case is a closed questionnaire, which is a questionnaire that has provided answers so that the respondent only has to choose and be answered directly by the respondent. In addition, the question items are asked and alternative answers are also provided. Questionnaire data in the form of qualitative data needs to be converted into quantitative data using symbols in the form of numbers.

By using a scale range of 1 to 5, where the higher the score given, the better the value of the indicator.

#### c. Research Design

Data analysis is to decompose the whole into smaller components to determine the dominant component, compare one component with another, and compare one or several components with the whole. Data analysis techniques are used to answer problem formulations or test hypotheses that have been formulated. Validity and reliability tests are tests carried out on research instruments. These two tests are carried out to determine whether each research instrument is suitable for use in research. The instrument in this study is to use a questionnaire.

#### d. Experimental Manipulations or Interventions

To determine the effect of mediator variables, namely organizational culture on performance through person organization fit, the Sobel Test is used. Testing the mediation hypothesis can be done with a procedure developed by Sobel (1982) and known as the Sobel Test (Kline, 2011).

This Sobel test is conducted by testing the strength of the indirect effect of the independent variable (X) on the dependent variable (Z) through the intervening variable (Y). The indirect effect is obtained by multiplying the path coefficient of each relationship. To test the significance of the indirect effect, calculate the t value of the coefficients a (Pyx) and b (Pzy) with the following formula:

$$t = \frac{ab}{Sab}$$

Note:

a =  $P_{yx}$

b =  $P_{zy}$

S = standar error

According to Sugiyono (2013) path analysis is part of a regression model that can be used to analyze the causal relationship between one variable and another. Path analysis is used by using correlation, regression and path so that it can be known to arrive at the intervening variable. As for the opinion of Riduwan and Kuncoro (2014) the path analysis model is used to analyze the pattern of relationships between variables with the aim of knowing the direct or indirect effect of a set of independent variables (exogenous) on the dependent variable (endogenous).

## IV. Result and Discussion

Characteristics of respondents based on gender can be grouped as follows:

### 4.1 Recruitment

Based on the data that the highest percentage of gender is male, namely 40 respondents or 80%, and the percentage of female gender is 10 respondents or 20%. This means that male consumers are more dominant in the sample response, this proves that customers of PT. DMG logistics services are more men than women.

Based on the data, it shows that the highest respondents at the age of 40 - 50 years are 60%. For ages > 50 years in second place with a percentage of 20%, ages 18 - 28 years in third place which is 10%, while for ages under 29 - 39 years are in fourth place with a percentage of 10%, based on the data above it can be concluded that ages 40 - 50 are more dominant in using the logistics services of PT. DMG and become customers.

### 4.2 Statistics and Data Analysis

Hypothesis testing and the coefficient of direct influence between the research variables can be seen from the significant value at  $\alpha = 0.05$ . The following will fully describe one by one hypothesis testing as mentioned in the previous chapter.

1. The effect of Time on Customer Loyalty through Customer Value as a mediating variable

Hypothesis testing above can be seen from the results of the sobel test calculation above getting a value of 2.497, because the sobel test value obtained is  $2.497 > 1.96$  with a significance level of 5%, it proves that Customer Value is able to mediate the relationship between the effect of Time on Customer Loyalty.

2. The effect of Order Fulfillment on Customer Loyalty through Customer Value as a mediating variable

Hypothesis testing above can be seen from the results of the sobel test calculation above getting a value of 3.547, because the sobel test value obtained is  $3.547 > 1.96$  with a significance level of 5%, it proves that Customer Value is able to mediate the relationship between the effect of Order Fulfillment on Customer Loyalty.

3. The effect of Information Quality on Customer Loyalty through Customer Value as a mediating variable

Hypothesis testing above can be seen from the results of the sobel test calculation above getting a value of 2.944, because the sobel test value obtained is  $2.944 > 1.96$  with a significance level of 5%, it proves that Customer Value is able to mediate the relationship between the effect of information quality on Customer Loyalty.

4. The effect of Customer Focus on Customer Loyalty through Customer Value as a mediating variable

Hypothesis testing above can be seen from the results of the sobel test calculation above getting a value of 2.320, because the sobel test value obtained is  $2.320 > 1.96$  with a significance level of 5%, it proves that Customer Value is able to mediate the relationship between the effect of information quality on Customer Loyalty.

### **4.3 Discussion**

#### **a. The effect of Time on Customer Loyalty through Customer Value as a mediating variable**

Based on the research results, it can be seen from the results of the sobel test calculation above that the value is 2.497, because the sobel test value obtained is  $2.497 > 1.96$  with a significance level of 5%, it proves that Customer Value is able to mediate the relationship between the effect of Time on Customer Loyalty. Based on these results it can be concluded that the Tenth hypothesis is accepted.

These results agree with previous research Research by Willyanto Agiesta, Achmad Sajidin and Perwito (2019) shows that punctuality and customer value have an effect on Customer Loyalty of Bandung Raya Local Train. These results are in accordance with the research of Putri et al., (2021). Susnita's research (2020) which states that timeliness and customer value simultaneously affect customer loyalty. In this case, when the service time provided to customers is of high quality and there is a feeling of satisfaction in the customer, it will make customers loyal to the company, it shows how good or bad the service provided by the company is for customers.

#### **b. The Effect of Order Fulfillment on Customer Loyalty through Customer Value as a mediating variable**

Based on the research results, it can be seen from the results of the sobel test calculation above that the value is 3.547, because the sobel test value obtained is  $3.547 > 1.96$  with a significance level of 5%, it proves that Customer Value is able to mediate the relationship between the effect of Order Fulfillment on Customer Loyalty. Based on these results, it can be concluded that the eleventh hypothesis is accepted.

These results agree with previous research showing that the order fulfillment factor is one of the driving factors of customer value experienced. If order fulfillment is an important source of satisfaction for customers, then they will get high value for money. But this component can be relatively unimportant for those who are not as sensitive to customer value. A consumer's perception of his order fulfillment can influence his decision to purchase a product. Customer perception relates to how their order information is fully understood by the service and provides deep meaning to them. By being in accordance with the wishes of the customer, the customer will become loyal and feel that he has a special value for the customer. It is expected that customer value can influence the relationship between customer order fulfillment and customer loyalty.

#### **c. The effect of Information Quality on Customer Loyalty through Customer Value as a mediating variable**

Based on the research results, it can be seen from the results of the sobel test calculation above that the value is 2.944, because the sobel test value obtained is  $2.944 >$

1.96 with a significance level of 5%, it proves that Customer Value is able to mediate the relationship between the effect of information quality on Customer Loyalty. Based on these results it can be concluded that the twelfth hypothesis is accepted.

These results agree with previous research conducted by Jessica Sze Yin Ho (2012) Information quality is also found to have a strong influence on customer loyalty for courier service providers (H3). This is in line with the results obtained from studies which discuss that "good product information helps create a more effective market for both consumers and marketers" with the creation of good customer value will create its own loyalty for consumers.

#### **d. The effect of Customer Focus on Customer Loyalty through Customer Value as a mediating variable**

Based on the research results, it can be seen from the results of the sobel test calculation above that the value is 2.320, because the sobel test value obtained is  $2.320 > 1.96$  with a significance level of 5%, it proves that Customer Value is able to mediate the relationship between the effect of information quality on Customer Loyalty. Based on these results it can be concluded that the thirteenth hypothesis is accepted.

These results agree with previous research conducted by Jilly C. Panambunan, Willem J.F.A Tumbuan, Bode Lumanauw (2018) concluded that (1) Customer Value partially has a positive and significant effect on Loyalty with Customer focus (2) Marketing Experience partially has a positive and significant effect on Customer focus (3) Marketing Psychology partially has a positive and significant effect on Customer loyalty. In addition, Rochim Sidik (2013) The results of this study indicate that customer value simultaneously and partially affects the value of consumers in buying teak sofa furniture in Menganti Gresik. The most dominant variable affecting consumer loyalty in buying teak sofa furniture in Menganti Gresik is the customer focus variable obtained. So that there is a relationship between focus on customers on loyalty through customer value

## **V. Conclusion**

In the results of this study also prove that Customer Value as a mediating variable can prove the hypothesis tested, meaning that the effect of Time, order fulfillment, Information Quality, Customer focus can be mediated by Customer Value on customer loyalty, based on the results of the analysis, it can be recommended to companies to provide opportunities for consumers to freely provide criticism and suggestions that can build the company's image and play a role in improving company performance.

For further research, it is hoped that it will add respondents in terms of demographics so that it can produce more valid and quality research and also further researchers who want to conduct similar research, in order to increase the time period used. So that the results obtained can be better and more accurate. In addition, future researchers can examine other variables that are not included in this study, so that the results can be improved.

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