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RISK ANALYSIS OF THE IMPACT OF THE COVID 19 PANDEMIC BY HOUSE OF RISK METHOD AGAINST DELAYS IN DELIVERY OF EXPORTED GOODS TO PT. INDONESIAN OCEAN

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Abstract

PT Samudera Indonesia as one of the logistics companies that plays a role in meeting domestic economic and trade needs, which during the current Covid 19 pandemic is also affected by the impact of export restrictions from various countries that have closed the area to minimize the spread of the virus. As a result, there is a delay in the delivery of goods which results in disruption of the company chain. This study aims to determine the risk of export delays faced due to delays in shipping goods due to the Covid 19 pandemic by using the house of risk analysis method.

Based on the analysis of risk identification, risk events on implementation risk include congestion at the loading/unloading location, and the accumulation of goods at the destination port location with a risk agent. Decreased port work productivity due to restrictions, and reduced shipping. In management risk, risk events include the addition of transportation costs, and the addition of container costs at the destination port with a risk agent. Transfer of empty containers and restrictions on loading/unloading activities.

Keywords: house of risk, export delay, covid 19

Introduction

Indonesia has tremendous potential in the trade, processing and consumption sectors, both domestically produced and imported from abroad. Citing data from BPS, Supply Chain Indonesia (SCI) recorded logistics sector growth in the first quarter of 2019 of 5.45%, to contribute to GDP in the first quarter of 2019 of 5.53%. However, in the first quarter of 2020 the logistics sector only experienced growth of 1.27% (supplychainindonesia.com, 2020).

The decrease in logistics sector volume was triggered by a decrease in exports and imports due to the decrease in domestic demand and the phenomenon of the Covid-19 outbreak that required various export and

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import destination countries to close access to and from Indonesia. Restrictions on access for security purposes of the virus resulted in all airport operations being suspended with regard to world health conditions. Many airlines suspend all operations with the purpose or from Indonesia until an indefinite time, then also airlines that do not accept cargo space booking because it is full booking, until some airlines provide for the destination or from Indonesia but the tariff installed from the airlines is quite high. The various masaah that appear then is the accumulation of goods in the airline, and will result in many risks such as loss of goods, and damage to goods.

This is also the case with PT Samudera Indonesia, one of the freight forwader companies engaged in export and import services as well as logistics service providers such as air freight, sea freight, warehouse, and tank containers. Quality assurance of service to customers then faces obstacles, especially in export and import activities affected by the Covid-19 pandemic.

In general risk can arise in various forms of any event. Risk is the opportunity to happen something that will have an impact in achieving the goal. The complexity of the structure involving many parties and the amount of uncertainty that occurs suddenly become a challenge in the management of the company.

Risk management is indispensable in risk management with the aim of minimizing the level of risk and impact of such risks (Hanafi, 2016). Without good risk management can certainly threaten the continuity of the company's business, therefore good risk management is very important for the company.

House Of Risk is a modification of FMEA (*Failure Modes and Effect of Analysis*) and quality home model(HOQ) to prioritize which risk source is first chosen to take the most effective action in order to reduce the potential risk from the source of risk. House of Risk is a model based on the need for risk management that focuses on preventive measures to determine which cause of risk is a priority that will then be given mitigasi or risk re-management (Pujawan &Geraldin, 2009).

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Fishbone diagram or diagram similar to the shape of fish bones, also called Cause and *Effect Diagram* or *Ishikawa Diagram,* the name taken from the maker is Dr. Kaoru Ishikawa, a quality control expert from Japan, as one of the seven basic quality tools (7 basic quality tools). Fishbone diagrams are used when wanting to identify possible causes of problems and especially when a team tends to fall thinking onroutines.

According to Ramadhani et al., (2014) Pareto diagram is an image that sorts the classification of data from left to right in the order of ranking highest to lowest. The Pareto diagram first introduced by an Italian economist named Vilfredo Frederigo Samoso in 1897 was a logical approach from the early stages of the process of improving a situation described in the form of a histogram known as the concept of *vital few and the trivial many* to obtain itsmain cause.

Metodology

This study aims to find out what risks will be borne by PT Samudera Indonesia in the face of *export delays* in shipment of goods due to the Covid 19 pandemic by the House of *risk*method. To answer the problem formulation that has been compiled, this study uses descriptive methods with qualitative approach.

In accordance with qualitative research characteristics, research data is used in interview techniques using interview guidance instruments to research sources. Researchers use*indepth interview* techniques in collecting research information and data. data retrieval on the analytical object directly namely PT. Samudera Indonesia, the process of collecting information data from sources is conducted at home through interviews using virtual technology via ZOOM.

The analysis of this research data uses *House Of Risk* method which includes risk identification process, identification of mitigation actions and recommendations produced to help companies solve logistics management problems.

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Discussion

Company Overview

PT Samudera Indonesia Tbk ("Samudera Indonesia"/"The Company") is an integrated cargo and logistics transportation company established in 1964. The company started in the 1950s with a ship agency business pioneered by the company's founder, Mr. Soedarpo Sastrosatomo. Since 1999, the Company has listed its shares on the Indonesia Stock Exchange.

Samudera Indonesia has 5 business lines: Samudera Shipping, Samudera Logistics, Samudera Ports, Samudera Property, and Samudera Services to provide high quality service to customers. Supported by 4,000 employees, more than 40 subsidiaries and offices in various regions of Indonesia and Asia, Samudera Indonesia is committed to providing the best solutions in cargo transportation and logistics.

A. Delay in Delivery of Goods Due to Covid-19

The Covid 19 pandemic that has been designated as a global pandemic, the impact on import trade and export activities is very real. Officially, addressing the threat of spreading the virus, as of April 22, 2020, the *World Health Organization* (WHO) released a list of 80 countries that implement a policy of 92 types of restrictions or restrictions on exports and imports in their respective countries.

At PT. Samudera Indonesia, delays in delivery of goods during this pandemic some identification of the delay in delivery of goods that occur among others as follows:

1) Decreased port productivity, resulting in congestion and delays in the process of loading and unloading cargo
2) Increased container freight rates due to the transfer/relocation of empty containers to alternative ports
3) Accumulation of goods in the destination country, resulting in the addition of *cost extend* due to the accumulated process

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Risk Analysis of Delays in Delivery of Goods Due to Covid 19 with House of Risk Method

External factors include opportunities and threats coming from outside the corporate environment.

Identification of Risiko

The following mapping and risk identification results can be seen in table 1.1 below.

Table 1.1 Identification of *Risk Event* and *Risk Agent*

Risk Code	Risk Event	Risk Code	Risk Agent
Implementation Risk			
1C	Congestion at the loading/unloading location	C1	Decreased port work productivity due to restrictions
2C	Accumulation of goods at the port of destination	C2	Cruise reduction
Risk Management			
3C	Additional transportation costs	C3	Empty container move
4C	Additional *cost* container at destination port	C4	Loading/unloading restrictions

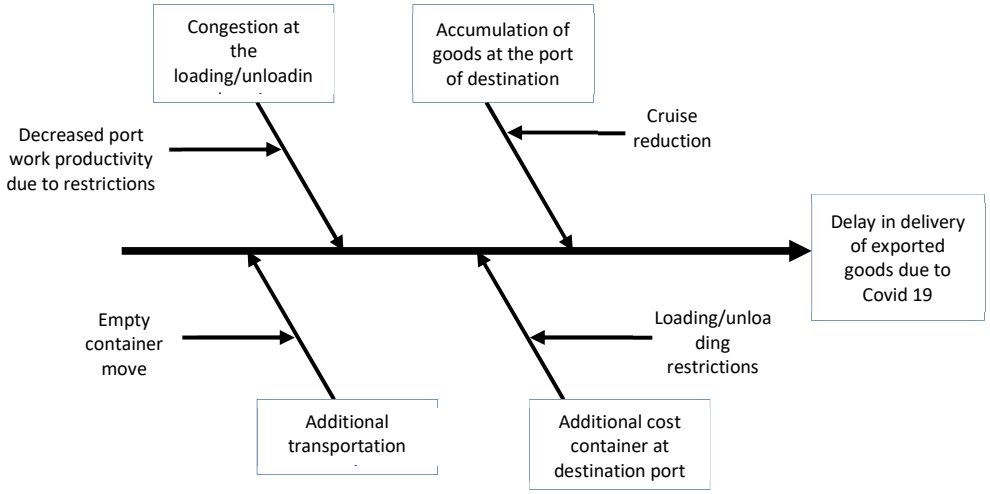

Figure 1. Diagram Fishbone

Identification of Mitigation Actions

Mitigation identification is prepared to minimize the risks faced in the implementation and management in the future by adjusting to the existing conditions and / in risk management strategies there needs to be the

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application of health protocols in every aspect of activities because the pandemic covid 19 that if not implemented will result in the number of workers exposed to the covid-19 virus. Based on the mapping and risk identification that has been done, the process of identifying mitigation to face the risk is as follows:

Table 1.2 Risk Management Strategies

No.	Handling Strategy	Code
1	Develop arrival schedule predictions to avoid congestion	PC1
2	Coordination and communication by avoiding buildup	PC2
3	Tariff adjustments to avoid additions	PC3
4	Communication and coordination to obtain container tariff incentives	PC4
5.	Implementation of Health Protocols to avoid the Covid-19 Virus	PC5

CONCLUSION

The delay in delivery of goods during the Covid 19 pandemic faced by PT Samudera Indonesia is a decrease in port productivity, resulting in congestion and delays in the process of loading and unloadingcargo. The increase in container freight rates due to the transfer / relocation of empty containers to alternative ports, then the accumulation of goods in the destination country, resulting in the addition of cost *extend* due to the accumulated process.

In the risk management strategy there needs to be implementing health protocols in every aspect of the activity because what is faced is the pandemic covid which if this is not done will result in the number of workers exposed to covid so as to have an impact on the decrease in labor productivity and will also automatically impact on the decrease in port productivity

Based on the risk identification analysis, *risk events* on implementation risks include congestion at the loading and unloading site, and the accumulation of goods at the destination port location with risk *agent* Decreased port work productivity due to restrictions, and Reduction of shipping. At risk management, *risk events* include the addition of transportation costs, and the

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addition of container *costs* at the port of destination debgan risk *agent* Removal of empty containers and Restrictions on loading and unloading activities.

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