CHAPTER I INTRODUCTION

I.1. Background

In the current era of globalization, economic growth is increasing rapidly. It is very important for every company to further improve the quality and quantity of its sales. Like PT. Pertamina (Persero), it is time for Pertamina to take steps to respond optimistically to the challenges that lie ahead in creating sustainable business growth for the company through investment and business optimization so that it continues to grow in accordance with the expectations of all parties. Stakeholders. Domestically, Pertamina serves fuel needs at 63 airports through Air Filling Depots (DPPU) spread over Marketing Operation Areas (MOR) 1 to MOR 8, while the BBM Terminal FT Baai Island, Bengkulu is included in the MOR 2 section of South Sumatra. Pulau Baai Fuel Oil Terminal has been operating since 1984. Equipment and facilities at the Fuel Oil Terminal have undergone several repairs and developments, especially the addition of operational facilities. Maintenance of existing equipment and facilities, such as maintenance and painting of tanks and pipes, is carried out periodically to protect equipment and facilities from damage due to corrosion or rust. The operational activities of the Pulau Baai Fuel Oil Terminal will continue to run as long as it is feasible to operate by PT Pertamina (Persero) from an economic point of view and the policies of the Bengkulu City Government.

The location of the Baai Island Fuel Oil Terminal is administratively located in Sumber Jaya Village, Kampung Melayu District, Bengkulu City, Bengkulu Province. Pulau Baai BBM Terminal has a land area of 105,185 m2 (42,000 m2 of land, 31,665 m2 of pipe, 31,502 m2) of water with leased land status from PT. PELINDO II (Persero) Bengkulu Branch. The Baai Island BBM Terminal focuses on distributing fuel to the Bengkulu Province gas stations and distributing fuel for aircraft fuel needs at the airport. Therefore they have one of the most important divisions to process all fuel distribution, namely the SSGA (Sales Service and General Affair) division. This division is responsible for preparing and handling inappropriate BBM/NBBM orders from customers, monitoring the system to see customers ordering BBM, and evaluating BBM/NBBM sales reports. Based on the duties and responsibilities that have been described, it shows that the SSGA division plays an important role for the Baai Island Fuel Oil Terminal, Bengkulu. Because, it is the division that determines whether the sales volume goes up or down.

As previously explained, one of the tasks of the SSGA division is to monitor customer orders, the following will explain the fuel ordering system. The BBM ordering system using SMS is one of the ways provided by Pertamina to make it easier for customers to place an order for BBM. Customers are required to place an order via SMS using a number that has been determined by Pertamina on condition that the customer must send a message at the time determined by Pertamina, if the customer sends a message outside the specified hours then the message will not enter the system and Pertamina will not process the delivery of fuel to the gas station. By using the method of sending messages via SMS to order BBM, problems often occur when customers send messages, messages often do not enter the system so that if this problem occurs Pertamina will not distribute BBM to gas stations because Pertamina will only distribute BBM if the customer's message has entered the system and the customer has completed the payment. If the fuel is not distributed, the stock of fuel at the gas station will run out, resulting in losses that will be experienced by both customers and Pertamina.

Based on primary data that the author obtained, the number of messages that do not come in is 5-8 messages every day. To solve this problem, the SSGA division must find out why messages do not enter the ordering system at Pertamina BBM Terminal, which gas stations are served by Pertamina Bengkulu, which gas stations often do not enter the ordering system, and how often messages come in. Failure occurs. The following is data on gas stations supplied by the Baai Island BBM Terminal, Bengkulu and data on gas stations located in areas with poor signal:

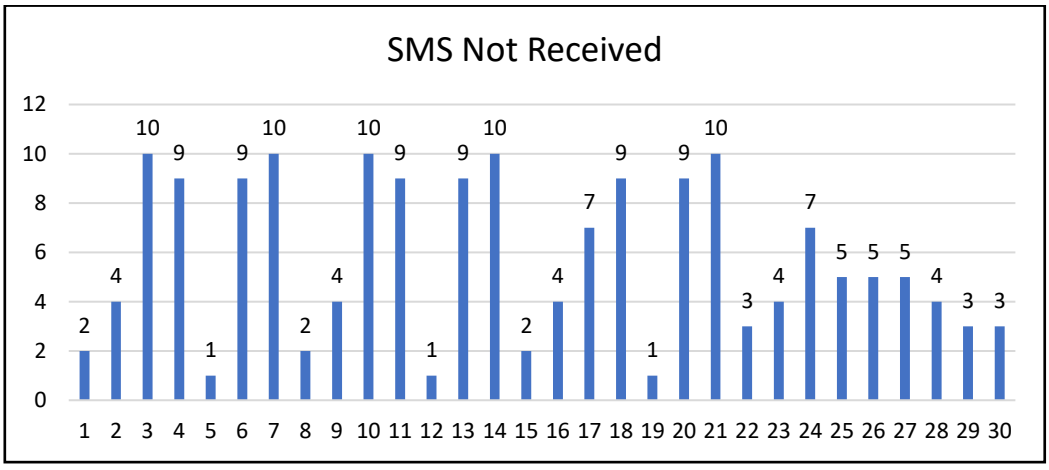

Figure I.1 SMS data that does not enter the MS2 system

Researchers have conducted interviews with gas station owners online. Interviews were conducted to find out what factors caused their messages not to enter the SMS application. The results of the interview from the owner of the gas station are as follows:

Table I.1 interview gas station owner

Name: Riko Chan Sabana		
Job: Gas Station Owner		
Interview: Bella Pertiwi Alifia Pandra		
Date: Thursday, 15 July 2021		
Question	**Customer Statement**	**Need Statement**
What are the problems when you want to send messages to MS2 applications?	It often happens that our messages don't go into the SMS application, because of a shortage problem network in the district	Gas station owners receive confirmation from the SSGA division assistant that their messages have not entered the SMS application.
What is the hope for improvement in innovation according to conditions when sending messages to the SMS application?	Pertamina has an alternative when the message we send does not enter the SMS application, meaning Pertamina has a solution to overcome the problems that often occur	Pertamina has developed an information system that can make it easier for gas station owners to order fuel

Table I.2 interview gas station owner

Name: Meriani		
Job: Gas Station Owner		
Interview: Bella Pertiwi Alifia Pandra		
Date: Thursday, 15 July 2021		
Question	**Customer Statement**	**Need Statement**

What are the problems when you want to send messages to the SMS application?	Just like the owner of a gas station in the district, surely the sms is often not connected to the SMS application	Gas station owners receive confirmation from the SSGA division assistant that their messages have not entered the SMS application.
What is the hope for improvement in innovation according to conditions when sending messages to the SMS application?	There is another way for us gas station owners to order BBM when our message does not enter the MS2 system	Make an MS2 application for gas station owners, provide the latest stock info and order fuel.

From the results of these interviews, researchers only conducted interviews with two gas station owners due to limitations in data collection. The interview technique was taken using a telephone interview technique. From the results of these interviews, the data will go into processing which will be used as customer complaints, namely gas stations in Bengkulu City. The conditions faced by gas stations in ordering fuel often make Pertamina's fuel distribution to gas stations often late. This causes a shortage of fuel at gas stations which makes consumers (people) queue for fuel, even though the fuel has not yet arrived at the gas station. This situation is of course very urgent and requires serious improvement efforts.

Figure I.2 fuel queue by consumers at gas stations

Delays in the distribution of fuel to gas stations have other impacts when viewed from the business aspect, such as:

1. A decrease in operating profit, namely a decrease in the number of sales of fuel to the public so that it will reduce the company's profits, both at gas stations and Pertamina. In addition, there are empty working hours, where gas stations continue to pay employees even though they are not carrying out work activities.
2. For consumers (community) queuing too long at gas stations makes consumers lose time to carry out both business and non-business activities, so that consumers can suffer losses.

The delay that occurred in the distribution of Pertamina's fuel to gas stations was caused by the gas station and Pertamina Termina in Bengkulu still using the conventional (semi-manual) ordering method. Where the gas station orders BBM using the SMS (Short Message Send) method, up to two SMS. The first SMS confirms the remaining fuel reserves in the gas station storage tank and the second SMS at the gas station places an order accompanied by a fuel order document. If the SMS does not enter the Pertamina SMS server, then the order is made manually, such as visiting the Pertamina BBM Terminal in Pulau Baai. The obstacle faced by gas stations so far is that messages often do not enter the Pertamina SMS application, as shown in Figure 1 above.

There are several factors that cause messages not to enter the Pertamina SMS application, so that further analysis will be carried out regarding the causes of messages not being sent to the Pertamina SMS application which will be mapped on the Fishbone Diagram to find out in more detail what causes messages not to enter the Pertamina SMS application. the factors causing the occurrence and the main factors causing messages not to be sent to the Pertamina SMS application.

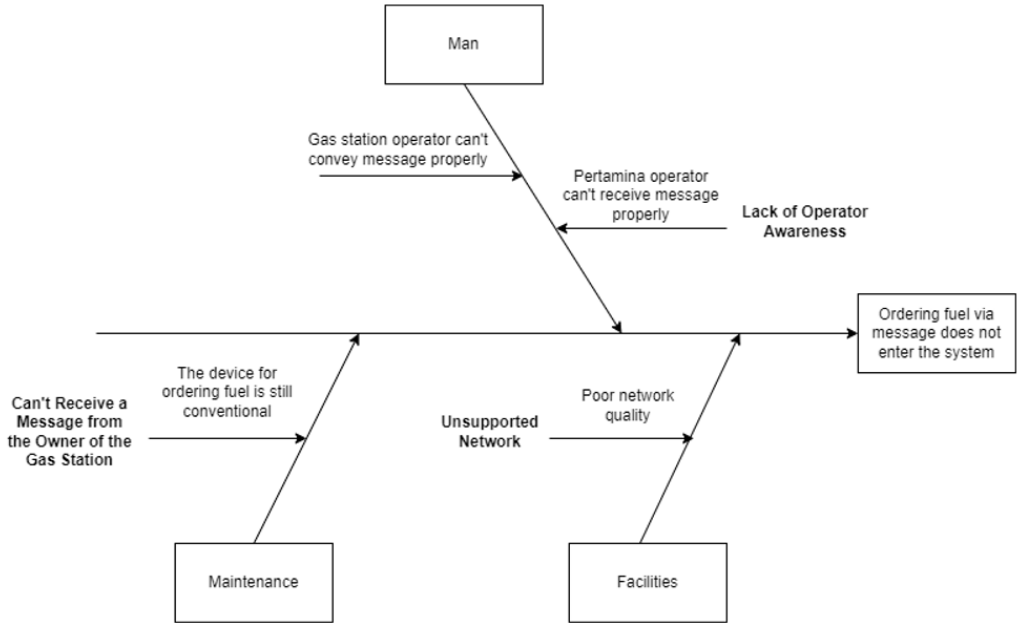

Figure I.3 Fishbone diagram of SMS app didn’t received message

From Figure 2, it is known that ordering BBM by gas stations to Pertamina Terminal requires a fairly long process, starting from the way of ordering, ordering time and the requirements for ordering BBM documents. The conventional way of ordering, when ordering is only served on weekdays and the document requirements are still manual, making the fuel ordering method used by gas stations in Bengkulu to Terminal Pertamina Pulau Baai often encounter problems, resulting in delays in the distribution of fuel to gas stations. This condition is caused by three main factors, namely man, maintenance and supporting facilities. The human factor (man), where in ordering BBM still using the SMS method, if the SMS does not come in, then the gas station will visit Pertamina on Baai Island. This of course makes work inefficient. Furthermore, in terms of equipment (maintenance) and supporting facilities, both the SPBU and Pertamina Bengkulu have not been equipped with Information Technology (IT) and an adequate and reliable internet network system, so that the conventional way of ordering BBM is the commonly used method.

Based on the problems that occur in the process of ordering and distributing Pertamina's BBM to gas stations in accordance with the existing conditions of the BBM ordering process at Pertamina's BBM Terminal, Pulau Baai Bengkulu, it is necessary to improve business processes, especially in terms of ordering and distributing fuel. The manual activities that have been carried out so far have been identified as a factor that interferes with the organization's

activities in distributing fuel to gas stations which leads to unfulfilled consumer satisfaction. Therefore, improvement methods need to be carried out to improve the existing conditions.

The improvement method used in this process is Business Process Improvement (BPI) using an applied improvement technique. According to H. James Harrington (1991). Business Process Improvement (BPI) is a systematic methodology developed to help organizations make significant progress in the way their business processes are operated. A business process is a collection of various activities consisting of a series of activities carried out within the scope of a company or organization that have been coordinated. These activities can support the achievement of the business goals of a company or organization (Weske, 2012).

By using the Business Process Improvement (BPI) method, the author is able to improve the business processes that operate in the SSGA division by using applications so that the business process flow becomes more effective and efficient. As in Fany Putri Novitasari's research which discusses the Design of Improved Shoe Ordering Process at PT Primarindo Asia Infrastructure with Business Process Improvement Methods.

Based on this background, it is necessary to take steps to improve business processes by evaluating and redesigning the BBM ordering business process which is still using the manual method. This study focuses on the proposed business process improvement to replace the way of ordering BBM by using an application using the Business Process Improvement (BPI) method. With the proposed process improvement, the company can apply the proposal to the SSGA division so that sales volume remains stable.

I.2. Problem Formulation

The formulation of the problem raised in this study is as follows:

1. What are the factors that affect the cause of the message not being sent?
2. What is the proposed business process improvement at the Baai Island BBM Terminal?

I.3. Final Task Purpose

This final project aims to:

1. Mengetahui apa yang menyebabkan sms tidak masuk ke system MS2.
2. Designing business process improvement proposals at Baai Island BBM Terminal, Bengkulu

I.4. Final Task Limitation

The limitations of this final project are as follows:

1. This research was not carried out until the implementation stage
2. This study does not discuss prices, costs, and other financial aspects.
3. The output of this research is only limited to providing proposals for business process improvements at the Baai Island BBM Terminal, Bengkulu.

I.5. Final Task Benefit

In this research there are research benefits, including the following :

1. Benefits for the company, it is that the company can apply the proposed business process improvement to avoid problems.
2. Benefits for researchers, this research can add insight and as an implementation on whatis obtained in lectures, and can compare the theory that has been studied in lectures withactual conditions at the company.

I.6. Writing System

This final project is described with a systematic writing as follows:

Chapter I	**Introduction** This chapter contains a background description of the research, the formulation of the problem which contains questions about the things that will be discussed in the research, the research objectives that answer the questions in the problem formulation, the limitations of the problem while the writer conducts the research, the benefits of the research for the company and the readers, and writing systematics.
Chapter II	**Literature Review** This chapter contains the methods used by the author in the research and theories related to the problems contained in the research, as well as supporting theories related to the problems contained in the research.

Chapter III **Problem Solving Methodology**

This chapter contains detailed research steps including: data collection stage, data processing stage, design stage, and conclusion and suggestion stage.

Chapter IV **Integrated System Design**

This chapter describes the steps taken in data collection and processing. These data will be processed and used as a reference for the next design stage.

Chapter V **Analysis of Results and Evaluation**

This chapter analyzes the results from the previous chapter. Overall this chapter discusses in detail the results of the research and the results of the designs that have been made

Chapter VI **Conclusion and Suggestions**

In this chapter the conclusions of the research that have been carried out as well as answers to research questions, and suggestions for companies and further research.