

CHAPTER I

INTRODUCTION

This chapter includes research background, problem formulation, research objectives, research scopes and outline of the report.

1.1 Background

The growth of downtown in Indonesia shows rapid development every year. Growth occurred in various sectors, including the trade sector. Indonesia is the fourth largest populated country in the world and is a substantial market for the retail trade sector (Utami, 2010). According to Ma'ruf (2005), Indonesia's total spending in 2004, with a population of 215 million reached Rp 600 trillion per year. Indonesia's total spending increase to Rp 8000 trillion per year in 2018 (Central Statistics Agency, 2019). The retail market can continue to grow in line with the increasing level consumption of Indonesia's. Developments in several fields can foster retail markets such as demographic developments, general economic growth, socio-cultural developments, lifestyles, technological advancements, globalization, infrastructure, legal and regulatory advancements. To meet the desires and needs of society, various shopping facilities, one of which is a retail business.

The retail business in Indonesia is growing day by day, and business competition is showing quite rapid development. The tendency of people to shop in the retail market makes retail one of the shopping facilities that have an essential role in people's lives. Retail that has the characteristics of selling goods or services in small quantities and providing products in an amount varied and type causes many choices in the shopping process for consumers, thus becoming an attraction for the people of Indonesia.

Development of the digital world and all conveniences provided are slowly suppressing the existence of retail shops. Changes in consumer shopping trends are

turning to the online world, making it challenges for retail businesses that rely on the offline store. The difference in price offered also makes this business more competitive. Bank Indonesia surveyed sales that occurred in the retail market. The survey conduct in several categories such as a category of spare parts and accessories, food, beverages and tobacco, motor vehicle fuel, information and communication equipment, category of other household appliances, category of cultural and recreational goods, and other categories of goods.



Figure 1.1 Growth of Retail Sales Index
(Source: Bank of Indonesia, 2019)

Regarding the explanation above, that retail business sales are growing every month. Several categories drove retail sales growth. One category that contributed to the highest sales was the spare parts and accessories category. The retail of parts and accessories group is a business that sells retail various car parts, components and accessories separately. The number of car users that has been increasing every year is one of the causes of high retail sales in the Spare Parts category.

Based on data obtained from the Central Statistics Agency, it known that car users from 2008 to 2018 increased continuously. The vehicle user graph can see in **Figure 1.2**.



Figure 1.2 Car User in Indonesia
(Source: Central Statistics Agency, 2018)

Amount of motor vehicle users makes retail spare parts a business that has promising business prospects. For owners of motorized vehicles, primarily cars, vehicle maintenance is a priority. Therefore, it is not surprising that many vehicle owners are willing to spend much money to finance cars by purchasing various equipment needed by motor vehicles such as car spare parts.

The car spare parts retail business is included in the category of medium to upper business the capital needed to build this business is quite large. Even though the size of the spare part that sold are small but have a high selling price, that is why to run this business it requires a significant capital in the supply of goods stock. Car brands in Indonesia are too much, and the types of spare parts are diverse depends on the brand of car. So generally, these business people specialize in selling only a few vehicle brands. Some shops specialize in selling Japanese auto parts, some shops specialize in selling European auto parts, and there are even shops that sell large-sized auto parts such as trucks and buses that have more than four wheels.

This business prospect also was held by business people in Padang. According to Capella Sales Marketing, the number of spare part retailers in Padang which have reached more than 90 retailers. However, this excellent business opportunity does not always run smoothly. Based on an interview with one of a

business person, the potential for spare parts sales should increase as motor vehicle enthusiasts increase. Still, the sales of spare parts from year to year do not increase significantly. There are several factors responsible for it. One of them is that more players are entering this market, so competition is building up. This competition is useful in some ways as it pushes the retailers toward better productivity.

It can conclude that the potential of spare parts retail business has not realized and organized is not optimally. Chairman of Indonesian Employers' Association (Apindo) Hariyadi Sukamdani said efficiency was the key to a company engaged in retail business could keep the breath of business. According to the Director of Corporate Affairs of Alfamart (2016), in a retail business, there are only two factors that must to attention, namely service and efficiency. In any era, the retail business that wins is one that provides better service and a high level of efficiency.

So, it is necessary to measure efficiency to determine the efficiency level of spare parts retail business processes because efficiency is closely related to the quality of the business. Therefore, this research was conducted at a spare part retail business that has been established since 1974 and already has five branches that sell auto parts genuine in Padang. By conduct this research, it can be view what operational units need to improve and how much can be optimized.

Data envelopment analysis (DEA) is one of a well-known mathematical model-based technique. DEA can use for assessing productivity and efficiency of decision-making units (DMU), and it is a nonparametric linear programming method (Ji YB and Lee C, 2010). DEA is used to handle multi-inputs and multi-outputs and does not require the assumption of functional relationships between input variables and output variables (Dewiyani, 2007). Implementation areas of DEA have a wide variety, including service and manufacturing sectors. DEA is used to estimate the level of efficiency of similar units of organizations, so-called DMU, which utilize the same inputs to produce the same outputs (Mardani et al., 2017).

In this study, DEA can use for the retail sector, which is not new, and in the literature, there are many studies. This study is conducted based on a real-life problem, where an assessment was needed to improve efficiency in five branches of spare part retail business. The motivation for the research is to understand the efficiency of spare part retailers through modelling techniques. This study provides fascinating insights into practising managers in understanding their business better. The study provides a framework for benchmarking with the best in the class, which can help the inefficient branches to develop the right strategies for improvements through a new scale of operations, revised managerial skills, and so forth.

1.2 Problem Formulation

Based on the background above, the problem is a spare part retail business is becoming competitive day by day. Efficiency has a vital role in the sustainability of a retail business. Efficiency in the retail business that is maximizing the number of consumers and sales of goods by using minimal input to achieve the level of efficiency score is one. So, efficiency measurement is needed to find out the efficiency level in the spare parts retail business process. This problem could be solved by using Data Envelopment Analysis for measuring efficiency. The problem formulation in the research is how the efficiency level of the spare part retail business using the Data Envelopment Analysis (DEA) method.

1.3 Research Objectives

The objective of this research is to measure the efficiency level of spare parts retail business, so the spare part branches can improve the performance store to beat the market competition.

1.4 Research Scopes

The scope of this research as follows:

1. This study is only focused on one spare part retail business that has several branches.
2. This research is limited only focuses on three periods.
3. The variable used in this research is only focused on the size of land, number of employees, number of deliveries, total cost, number of customers, and sales.

1.5 Outline of Report

The outline of this final project consists of five chapters with the systematic as follows:

CHAPTER I INTRODUCTION

This chapter introducing the subject to be discussed that contains background problem formulation, objectives, scope and outline of the research.

CHAPTER II LITERATURE REVIEW

The literature review provides an overview of all the theoretical basis related to the final project subject. This chapter defines the retail sector, the importance of efficiency, Data Envelopment Analysis method such a definition and sensitivity analysis

CHAPTER III RESEARCH METHODOLOGY

This chapter discusses the research methodology used in this final project. Research methodology describes the systematically step to solve the problem of this research, from the beginning until the end of the study.

CHAPTER IV RESULT AND DISCUSSION

Result and discussion will be present and analyze the data collected.

CHAPTER V CONCLUSION AND RECOMMENDATION

This chapter contains the conclusion of the research and the recommendation for the next research.

