

CHAPTER 1

INTRODUCTION

1.1. Background

In this globalization era, the industrial companies are increase. The latest development in business gives impact on the business competition. The competition requires efforts of companies in the same industry (Campos, 2013) . The things which are concerned to improve are production cost, customer satisfaction, and waste. This research focus is the waste occurred in a company. According to Habidin & Yusof (2013), wastes can increase production cost and can give impact to customer satisfaction. Reducing number of waste means enhancement in productivity, such as utilizing production labor, reducing delivery time and reducing manufacturing cost through continuous improvement process. Furthermore, the things which are concerned as types of waste are over production, waiting, transportation, over processing, inventory, motion and defects (Desai & Shrivastava, 2008) .

Every company emulates to obtain a better improvement using the best tools and philosophies. PT. Samudra Luas Paramacitra (PT. SLP) is a rubber company, which is located in West Java, Indonesia. In order to compete with others, PT. SLP attempts to reduce the wastes in their production floor. PT. Samudra Luas Paramacitra produce many kinds of rubber's products, such as fender, rice hulling roll, marine fender accessories (anchors), bollard, frontal frame, Precured (PC) rubber, rubber expansion joint, and rubber articles. However, the product used in this research is Rice Hulling Roll (RH Roll). The reason is because RH Roll is the major product of the company, which is produced in mass production.

RH Roll is used in huller companies. One machine of rice huller needs two pieces of rice hulling roll. Both of them set in two sides of the machine. The rolls are driven by motors in different direction. Each surface of the roll collides and paddy pours between rolls. Covers of paddy break and become hulled rice.

Moreover, wastes in the RH Roll production have not been identified yet. The philosophy which is used to determine and reduce the number of wastes which are exist in the RH Roll production floor are the combination of the Lean

Manufacturing and Six Sigma implementation. Lean and Six Sigma philosophies have been implemented in some companies in Brazil and the automotive industry in Malaysia (Besseris, 2014; Habidin & Yusof, 2013; Gremyr & Fouquet, 2012).

1.2. Problem Formulation

Based on the background, the problem formulations of this research are below:

- a. Unidentified wastes in the RH Roll production floor.
- b. The company has determined no details of root cause of the wastes.

1.3. Objectives

Based on the problem formulation, the objectives of this research are:

- a. Determine the highest number of waste in the production process of RH Roll in PT. Samudera Luas Paramacitra by using Waste Relation Matrix.
- c. Find out the root cause of the most waste.
- d. Determine and implement solutions in order to decrease number of the most waste.

1.4. Scope and Limitations

The scope and limitations of this research are as follows:

- a. The focus in this research is only the production floor of RH Roll production.
- b. Identifying process of the most waste in the production floor only focuses to the opinions of Operational Manager, Operational Director, and Section Chief of Production.
- c. The number of wastes observed are only seven, which are overproduction, inventory, defect, motion, transportation, over-processing, and waiting.