CHAPTER I

INTRODUCTION

A. Background

The development of the industry today is accelerating. This will be known from the increasing and tighter competition between companies, so companies must always produce products with good quality and under their functions. Consumers as buyers, of course need the appropriate quality for the products they buy. Satisfied consumers will be beneficial and be part of the successful steps to achieve better profits.

In creating a product, manufacturers should pay attention to the quality of the product. Quality products become the main criteria of consumers in the selection of products offered by industrial companies. The quality of a product is the physical state, function, and nature of a product that can satisfy consumers' tastes and needs satisfactorily according to the value of money spent. In the Qur'an, the quality of products is good and useful to meet the wants and needs. Because useful and good things will lead to good deeds too. Useful and good items here that have good quality. As stated in the Qur'an surah Al Baqarah verse 168:

يَٰٓأَيُّهَا ٱلنَّاسُ كُلُوا۟ مِمَّا فِى ٱلْأَرْضِ حَلَٰلًا طَيِّبًا وَلَا تَتَّبِعُوا۟ خُطُوَٰتِ
ٱلشَّيْطَٰنِ ۚ إِنَّهُۥ لَكُمْ عَدُوٌّ مُّبِينٌ ﴿١٦٨﴾

"People, eat what is good and lawful from the earth, and do not follow Satan's footsteps, for he is your sworn enemy. (Al-Baqarah:168)"

Companies must be able to produce products that meet consumers' needs. According to (Gaspersz V 2005), one of the activities in creating quality to conform to the standards set is to implement the proper quality control system, have clear objectives and stages, and provide innovation in prevention and solving problems faced by the company. Quality control activities can help companies maintain and improve the quality of their products by controlling the level of product defects to the best achievement by making continuous improvements.

The function of quality control is to maintain the consistency of the quality of a product that is carried out continuously. Products that are marketed or sold should suit the needs and desires of consumers so that consumers are satisfied. It is only with customer satisfaction that the company will benefit. On the contrary, if consumers are not satisfied with the products they buy, they will leave our company, and we will lose customers and eventually suffer losses.

Quality control becomes crucial and must be implemented so that the company is aware of any production process irregularities. That will cause defects so that they can be minimized and prevent the possibility of the slightest possible damage. One method for quality control using Six Sigma, whereby with such an approach can see irregularities that occur so that in the end, it is expected to be able to minimize defects. According to (Bustami and Nurlela, 2006), defective products are produced in the production process where the resulting product is not appropriate to the quality standards set.

Six Sigma is a systematic and organized technique to improve the strategic process, new product, and service development that focuses on scientific and

statistical methods to make considerable reductions in customer determined defect rates(Linderman et al., 2003). Six sigma implements structured, focused, and practical quality principles and techniques to achieve error-free business performance where business performance is measured from the sigma level (Pyzdek et al., 2010). According to (Schroeder et al., 2008), the initial concept of Six Sigma was developed and executed by Motorola in 1987 to achieve a difficult target of 3.4 defects per million opportunities.

Improvement activities in the Six Sigma approach follow the define, measure, analyze, improve, and control (DMAIC) framework. DMAIC is similar to previous manufacturing problem-solving methods, such as plan-do-check-act and Juran and Gryna's seven-step process.(de Mast and Lokkerbol, 2012). With the DMAIC stage, the company can continuously improve its quality in achieving the six sigma target to minimize defective products. According to (Kaushik et al., 2012). applying the six sigma concept is easier for small and medium-sized companies.

The six sigma program is frequently used in small and medium-sized businesses in the UK and produces excellent outcomes (Antony et al., 2005). Implementation of 6-sigma is expected to help small and medium-sized companies in the UK with its implementation so that its development can be seen in the future. Furthermore, the six sigma team has typically used this strategy to make improvements in order to achieve the six sigma level.(Thomas & Barton, 2006). The six sigma method was chosen because it has several advantages including cost reduction, productivity improvement, market share growth, customer retention,

cycle time reduction, disability reduction, and product/service development (Pande, 2002).

Currently, the Quality of a product is very much considered, especially in the industrial sector. Consumers have started to choose similar products but with the best quality one example is embroidery. Embroidery requires particular skill and accuracy to produce quality products. Bordir Corner is one of the businesses running in the service sector, especially embroidery services, located in Jl. K.H. Mas Mansyur, Pusat Grosir Tanah Abang Blok B, 3rd floor Los D No.36, Kampung Bali, Kecamatan Tanah Abang, Jakarta Pusat City, Special Capital Region of Jakarta 10250.

Nowadays, competition is quite tight with the presence of embroidery services that are popping up in Jakarta, as seen in the area around Tanah Abang modern market. To maintain competition, Bordir Corner must implement a strategy to maintain good product quality by implementing the process of quality control to produce products that can compete in the market and meet the specifications of customer needs.

B. Research Problem

1. How is the quality control that has been applied in Bordir Corner?
2. What are the factors that cause defects in embroidery products in Bordir Corner?
3. What are the proposed recommendations for improvement of the cause of defects in embroidery products to improve the quality of products?

C. Research Objectives

Based on the problems that have been obtained, the objectives of this study are as follows:

1. To find out if the quality control of embroidery products produced by Bordir Corner has been effective.
2. To identify the factors that cause defects in custom embroidery products in Bordir Corner
3. To provide recommendations for improvement recommendations on the causes of defects in embroidery as an effort to improve the quality of products

D. Benefits of research

1. Theoretical Benefit

a. This study provides an overview of how Six Sigma is implemented in small and medium companies to reduce product defect
b. As a writing reference for further research

2. Practical Benefits

a. The company can know the quality of embroidery products as information for the QC in determining the quality standards of the products.

b. The company can find out the factors that cause defects in embroidery products to improve the quality of products in meeting customer expectations.
c. Can make performance improvements to Bordir Corner in improving product quality by minimizing product defects.