

ABSTRACT

PT. Progressio Indonesia (Pronesia) is a company engaged in the convection that produces a wide range of products such as t-shirts, jackets, polo shirts, shirts, pants, etc. Types of products examined in this study focus on the shirt product. In the production process of shirt, found defect waste that affect product quality. Based on company data, defect rate in May, July, August and September are above the tolerance limits set by the company, which is 3%. Therefore, it is necessary to design an improvement over the production process of shirt in an effort to minimize defect waste.

In an effort to minimize defect waste, used Lean Six Sigma methods. Steps taken by following the steps in DMAI (define, measure, analyze, improve) and using lean tools to make improvements in production process of shirt. In the define phase, establish the SIPOC diagram, Value Stream Mapping (VSM) current state and Process Activity Mapping to map the flow as well as a process that occurs. In the measure phase, the identification of potential CTQ, measurement stability and process capability. In the analyze phase, the identification of a dominant defect waste by using pareto diagram, while to identify the root cause of the dominant defect waste using fishbone diagram. Furthermore, establish the VSM future state to describe the location of the proposed improvements to be implemented. In the improve phase, given the proposed improvements based on the issues priority of FMEA results to improve the quality of the production process of shirt.

Based on the results of the analyze phase, it is known the dominant defect that occurs in the production process of shirt is run off stitching. Furthermore, in the improve phase, given the proposed improvements to address the root causes of the problems that occur. Some of the suggestions given to minimize defect waste such as preventive maintenance activities, additional buzzer system in the machine and establish the visual control (display).

Keywords : Defect Waste, DMAI, Fishbone Diagram, Lean Six Sigma, Value Stream Mapping