

ABSTRACT

PT Caladi Lima Sembilan is garment company that produce printed shirt. Until now, this company is facing defect issue in production process that's indicated by 4.08% of defect product for period October 2010 - May 2011. To overcome that issue, Six Sigma methods have been used to solve the defect in production.

There are systematic stages in Six Sigma methods to solve the issues, such as DMAIC (Define, Measure, Analyze, Improvement, Controls). The stage of Define has purpose to identify product and/or the process that are going to be fixed. The stage of Measure has purpose to know the stability and capacity of production process. In Analyze stage, analysis will be processed to the root cause of the problem by using Fishbone Diagram to do Analysis and Benchmarking of Failure Mode and Effect.

In this research, there are 4 CTQ, such as tidiness of the print, tidiness of stitch, cleanlines and quality product. There are 5 kinds of defection have been identified. They are failed print, missed stitch, dirty fabric, defect and decay material. The Sigma point for PT Caladi Lima Sembilan for period October 2010 - May 2011 is 3.93 sigma. The defection of product has been caused by employees, material and equipment factors. According to the analysis, there are some actions that can be proposed for improvement according to priority.

Key words: Six Sigma, Fishbone Diagram, Failure Mode and Analysis, Benchmarking