ABSTRACT

CV. Anugerah Abadi Jeans is a manufacturing company which produces products based on denim, especially jeans. In order to improve quality of the products, the main issues CV. Anugerah Abadi Jeans has to resolve is to maintain control of the product quality. Jeans product defect rate produced by CV. Anugerah Abadi Jeans was around 2.31% during the year of 2016, while the defect rate tolerance allowed by the company in 2016 was 0.20%.

In order to overcome those issues, Six Sigma method is used. The procedures used to reach 6-sigma standard are by going through these steps of define, measure, analyze, and improve steps in DMAIC. Define phase is carried out by SIPOC diagramming, authenticating that defect is the biggest waste among others, and dominant defect type determining. Measure phase is carried out by CTQ determining, stabilites and capabilites of process measuring. Analyze phase is carried out by Fishbone chart and 5 Why's analyzing in order to find the root cause of problems, along with its priority sequence by using FMEA. Improve phase's contents are the proposal for improvements based on the results of analyze phase.

Based on the results of define phase, the dominant defect type of jeans products in 2016 determined is the broken threads on the denim's surface in the percentage of 50% from 8 other defect types. The jeans products production's performance has been proven stable, with a sigma level of 4.26. Recommendations are given towards waste defect elimination efforts are: focusing on efforts to increase the purcase of denim materials, organizing inspection actions before entering the stitching process in the production along with its practice alternatives, and increasing the quality of lighting in the cutting room.

Keywords: *5 Why's, Jeans, Fishbone Chart, Six Sigma*