

ABSTRACT

In the implementation of jeans production, a number of defective products were found that resulted in not achieving the target production amount. Further research is needed to identify and calculate the cause of the defective product.

Using the method Six Sigma with the stage DMAIC (Define, Measure, Analyze, Improve, Control), in the Define phase, known CTQ products and performed observations at the stage of the production process, and found the problematic process, the cause of the occurrence of 14 types Defects in defective products. The problematic process is the material preparation, material cutting, and sewing III. In the measure, calculation of process capability with the result of 3.92 Sigma and DPMO 7764. The Analyze stage, the root cause of the problematic process is identified by the Fishbone diagram and FMEA to determine the priority of potential failures. So in the improvement phase, given the design improvement to overcome the failure are installation of the LED panel panels in the Machine inspection materials, the manufacture of visual display reminder to checking condition of cutting machine, the addition of the process set up machine in sewing process and additional protective on needle area in sewing machine.

Keywords : Six Sigma, DMAIC, Level sigma, CTQ, Jeans