

ABSTRACT

PT. XYZ is a company engaged in manufacturing, with Decathlon brand shoes as manufactured products. PT. XYZ applies make-to-order with a number of specializations such as shoe size, number of orders in one production, up to the time of shipment of shoes and based on CBA (Components based on Advance) with specialization of shoe materials to be purchased in production activities. In producing Decathlon shoes from the cutting process to the final inspection, it is still a defective product. One process that is flawed and the focus of research is the screen-printing process. From historical data on the number of production and the number of Decathlon defective products in 2019, the average defect produced is 12% which means this value still exceeds the limit set by the company of 10%. This research using DMAI approach. At define stage, it consist of making SIPOC diagram, identifying CTQ, identifying process stage and identifying production process issues. At measure stage, it contains a discussion of calculating process stability and capability. In analyze phase, it contains of root problem analysis using fishbone diagram, 5 why's and analysis of proposed improvements using FMEA. In improve stage it contains of proposed improvement to reduce or eliminate defects using 5W+1H. The proposed improvements that made are by making work instructions for the screen-printing process, the use of conveyor dryer machines for the drying process of screen-printing, making maintenance sheet for conveyor dryer machines and using visual displays.

Keywords: Decathlon, Screen Printing Process, Defect, DMAI, Work Instruction, Conveyor Dryer, Maintenance Sheet, Visual Display