

ABSTRACT

CV Segura Utama is a company producing various kinds of yarn. Improving the quality and productivity of the company focused on the production of Rayon Ne 30/1 yarn. Problems of quality and productivity can result many negative effect. The occurrence of adverse events is onset of wasting and defect products outside the tolerance. During 2011, Defect product that occur in the company reached 3.52% . tolerance limits of defect that is 3%.

Lean Six Sigma method is used to solve the above problems. The initial phase is define. This step is made a SIPOC diagram, identification of waste using a checklist, determination of the most critical waste, and determination of the dominant type of defect. Trought 2011, Dominant defects that occur in the Rayon Ne 30/1 yarn production process are blended yarn by 37.4% and Stepped winding by 29.89%. the most critical waste are defect, waiting time, and unnecessary inventiry. The second phase is measure. At this step is made a value stream mapping, classification of value added, non value added, and non necessary vaue added activities, calculations the efficiency of the value stream, determination of CTQ, stability and capability process calculations. The third phase is Analyze. On this stage is made the analysis of the causes of waste and defects by using the fishbone chart and 5 why tools, and weighting a priprity of the root cause. The fourth phase is Improve, at this stage is made a improvement of the root cause that has been found in the analyze step.

Keywords: *Lean six sigma, Waste, fishbone chart, 5 Why, DMAIC, VSM, FMEA, Spinning Yarns.*