

ABSTRACT

PT. Eksonindo Multi Product Industry (EMPI) is a manufacturing company that produces bags. This type of bag that is examined in this study focus on the type of bag exsport. In the production process of export bags found waste defects that affect production time in the achievement of the production target. Based on company data, the average rate of defects in January-December of 2012 are above the limits of tolerance of the company is above 8%. Therefore, it is necessary to design an improvement of the production process in an effort to minimize waste defect

In an effort to minimize waste defect, use lean six sigma methods. The steps taken following the stage of DMAIC (define, measure, analyze, improve) as well as using lean tools to make improvements bag production process. In the define stage, done define SIPOC diagrams and VSM in defining problems. The measure stage, determining CTQ, KPI's waste defects, measuring stability and capabilities process. The analyze stage, determine the root cause of the problem with fishbone chart, 5 Why, and FMEA. The improve stage given the proposed improvement of the results of FMEA to improve the quality of the bag production process.

Based on the results of the analyze stage, the dominant defects found in production processes is folded (J16), less the dress (J27), dress wrinkles (P15), dirty (K01), and put pongpok upside (P13). Next on stage, given the proposal improve in addressing the root causes of the problems. Some suggestions are given to minimize waste defects such as, procurement display, checks the condition part regularly at the beginning of the preparation of the production process, the replacement part at a certain time interval, making monitoring form, briefing on the operator, increase surveillance on the operator, and the addition of hygiene kits.

Keywords: *Lean six sigma, DMAIC, waste defect, value Stream mapping, 5W+1H, visual control*