

ABSTRACT

This research was conducted on companies engaged in the chemical industry which are manufacturers of household products such as: air freshener, baby care products, food plastic wrappers, metal polishers, mouse glue, insecticides, lpg cans, car care products, insect repellent, and many more. many other products. The product chosen to be used as research material this time is an aerosol insect repellent product. This research was conducted in the production department of an aerophile line that produces aerosol insecticides. This study aims to determine the defects and waste that occur in the aerophyll line so that it can improve quality and increase the amount of production in order to meet customer desires. The method used in this research is descriptive which is done by analyzing the production process on one type of product on the aerophile line by observing for 3 months. The results of this study were carried out using the DMAIC (Define, Measure, Analyze, Improve, Control) and VSM (Value Stream Mapping) methods identified 5 types of defects, namely dented cans, missing batch numbers, reject caps, leaks, and low weight. From the calculation results, the average DPU is 0.05, the average DPO is 0.01, the average DPMO is 10278.14, the average production yield is only 68.59% and the level of sigma value is at level 2. Improvements made with Lean Sigma by expanding the capacity of the waterbath and accelerating the process of immersion and raising the temperature in the waterbath, scheduling machine inspections, making checksheets, and work instructions and SOPs. So that the production cycle time decreases from 88 minutes to 83 minutes which resulted in an increase in the production target from 72 pallets/day to 78 pallets/day, and has an impact on the actual number of production from 1,875 pallets/month to 2,028 pallets/month.

Keywords: Lean Six Sigma, DMAIC, VSM, Defect, Waste