

ABSTRACT

PT. Gerlink Utama Mandiri is a company engaged in the health manufacturing industry. One of the products produced by PT. Gerlink Utama Mandiri, namely dental aerosol. Companies often ignore opportunities that have the potential to generate profits such as limiting defective products, working hours efficiency, and exceeding product delivery limits which cause waste, so companies continue to improve product quality with various improvements and try to achieve timely delivery targets, by continuing to make improvements. problems that occur in the production process. In fact, there are still problems in the production process in meeting consumer demand, therefore it is necessary to identify the causes of the problems that exist on the production floor. Identification of problems can be done by finding the root cause of the problem of activities that do not have added value using a fishbone diagram. In addition, identification of types and causes of waste is also carried out using Value Stream Mapping (VSM) and Process Activity Mapping (PAM). By using Value Stream Mapping (VSM) and Process Activity Mapping (PAM) it will be known the total lead time, Value-Added (VA), Necessary Non-Value Added (NNVA) and Non-Value-Added (NVA) activities, as well as types of identified wastes. The types of waste identified are waste motion, waste waiting, and waste defects. The focus of research in this Final Project is to reduce non-value added activities caused by waste motion with a waste percentage of 47.5% which is mostly caused by human factors and material. Proposals to be made to reduce activities that result in waste motion in the dental aerosol production process are the application of 5S activities (seiri, seiton, seiso, seiketsu, and shitsuke). seiri design in the form of red tags and log registers, seiton design in the form of item storage and labeling, seiso design in the form of a cleaning equipment storage area and cleaning activity checklist, seiketsu design in the form of picket schedules and 5S work rules, finally shitsuke design in the form of displays, checksheets audit and 5S habituation activities. There is a proposed 5S activity for operators to be more productive. Based on the simulation results, non-value added activities can be reduced by 2310.44 seconds. In the simulation using the FlexSim application, the results of dental aerosol production

after the proposed 5S activity could produce 6 pieces a week, whereas before the proposed 5S activity, the dental aerosol production was 5 pieces a week.

Keywords: Just In Time, Lean Manufacturing, Value Stream Mapping, Process Activity Diagram, Waste, 5S