ABSTRACT

CV. Setia Kawan Jaya is a manufacturing company engaged in the production of plastic with a make to order system. CV. Setia Kawan Jaya produces two types of plastic, namely Polypropylene and High Density. High Density (HD) plastic is a type of plastic that has a high demand. There are indications of waste waiting and transportation in the high-density plastic production process, so research is expected to minimize or eliminate existing waste. The data collection method was carried out by field observations and the data obtained were based on sources. Data processing uses Value Stream Mapping (VSM), Process Activity Mapping (PAM), and Fishbone Diagrams. The results of the study based on current state mapping obtained a total lead time of 67,029 seconds and a Process Cycle Efficiency of 42.2%. Based on PAM, the total VA is 28,344 seconds, NVA is 28,200 seconds, and NNVA is 10,485 seconds. After repairs using Time Measurement Methods there is a change in the cycle time on the cutting machine because the actual time is 1.804 seconds to 1.148 seconds so that the cycle time on the cutting machine becomes 2.312 seconds. Simplification of the process is also carried out to minimize the NVA time in the changeover time process, so that there is a difference between the actual time and the proposed 1,800 seconds to 1,100 seconds. Based on the proposed improvements, there was a decrease in lead time by 25%, cycle time by 36%, takt time by 7%, change over by 39%, and transportation by 53%. As for the value added value of 54%, non-value added 33%, necessary non-value added 13% with a total lead time of 50,067 seconds This has a positive impact on the company because it makes it more efficient and can increase productivity within the company.

Keywords: *Lean Manufacturing, Waste, VSM, PAM*