ABSTRACT

PT Mizan Grafika Sarana is one of printing company. There are 5 types of books produced, those are: soft cover, hard cover, eva book, board book, and toys book. Based on historical data of January's book production s.d. December 2017, there were delays in the delivery caused by non-production of books. The highest incidence occurred in the production of soft cover book, up to 7,37% (289,224) with average delivery delay 2 days and the average number of books production are 1496 copies. Based on the problems, by lean manufacturing approach, the Value Stream Mapping (VSM) current state is conducted. Its goal is to know the flow of production process from the warehouse to the hands of consumers. From the VSM mapping results obtained that the non-value added activities are greater than the value added activity with lead time 33433,99 seconds (9,28 hours). From these results then the Process Activity Mapping (PAM) is mapped to find out in detail the activities undertaken. Based on the mapping result, the value added activities are 2,21%, non-value added are 70,48%, and the necessary non-value added is 27,31%. From the PAM result, the non-value added activity has the highest percentage indicating any activity that does not give added value that must be eliminated. There were also obtained waste of inventory up to 87,12%. Identification of waste inventory is done by using fishbone and 5 why's. To minimize waste inventory, the implementation of Kanban system is desigmed. After doing the proposed improvement, the Value Stream Mapping mapping (VSM) future state is mapped

Keywords: Lean Manufacturing, Value Stream Mapping, Process Activity Mapping, Waste Inventory, Fishbone Diagram, 5 Why's, 5W1H, Kanban