

ABSTRACT

PT. Pikiran Rakyat is a company that focus in printing production by producing daily newspapers. In the three months of the year 2016 there is a difference amount between the number of newspapers requested by customers with the amount of the company's production. Excess production of this newspaper as much as 34842 copies resulting the losses to the company based on conversion into cost of goods sold of Rp. 2,900 per copy so that the company losses due to overproduction round to Rp. 101,041,800. The results of the overproduction can be resold at a price of Rp. 268 per copies, so the company gets cashback of Rp. 9,337,656. Then, the company should pay more due to the overproduction as much as Rp 91,704,144. With lean manufacturing approach then identify problems using value stream mapping tools and process activity mapping current state. The root cause of the problem is identified using a fishbone diagram and 5 whys. The next stage is suggesting improvements from the root of the existing problem using the calculation of production quantities by forecasting method. Forecasting method choose by saw to the demand pattern that include to the cyclical pattern which match using moving average forecast method. Three types of moving average, they are single moving average, double moving average, and weight moving average. This research using n as the number of period that will forecast from n equals to 2 until n equals to 7, that represent one week production activity. This research compares three types of moving average and choose the types by calculating mean absolute deviation for each types of moving average. The method that has smallest mean absolute deviation is the method that will be used for forecasting demand. This result of demand forecasting will be verified to see whether the demand forecast is representing actual demand or not. To make operator and all employees more easier get the information of daily production, then designed daily production result that recapitulate in the weekly production card. The company also can make an evaluation for the amount of process production result and the data demand also can be recorded. The production process after the suggestion of improvement describe by using value stream mapping future state.

Keywords: lean manufacturing, value stream mapping, activity mapping process, waste motion, kaizen blitz, 5S.