

Abstract

PTPN VIII Cikumpay garden is one part of PTPN VIII engaged in the cultivation and processing of rubber and cocoa. One of the rubber-processing products in the company is crumb rubber (CR). CR product is a product which is used as raw material for rubber products such as tires and others. Based on data from CR production in 2010 and 2011, the production CR did not achieve the target set by the company management. CR production rate of productivity per year is 88%. This shows there is a need to be improved to increase productivity.

In this study, the problem of productivity will be improved by using lean manufacturing approach to reduce the activity of waste (waste) that occur on the production floor. The initial phase of this study is to describe the flow of material and information on the production floor by using Value Stream Mapping (VSM) and the current state detailing activities by Process Activity Mapping (PAM). Making VSM and PAM showed some activity in case the waste transportations 57%, waiting time (delay) 29% and 14% inventory. Pareto Chart will be used to determine the waste are the focus improvements. The root causes of waste are identified using fishbone chart and five whys. The result of this identification shows the layout of a fixed faktor. Repairing layout carried out by using a CRAFT algorithm to reduce the moment of time movement (transport). The results of the improved layout shows 21% reduction in waste transportations and a waiting time of 2%. Overall lead time decreases by 6%. Decrease lead time showed productivity increased production floor.

Keywords: Crumb rubber (CR), productivity, lean manufacturing, value stream mapping (VSM), Process Activity Mapping (PAM), Pareto chart, five whys (5W).