ABSTRACT

An ideal production process is a process which have a short lead time with small percentage of defect that occur in it. In order to form an ideal production process, it need to minimize non value adding activity that occur in a process.

This research focus on identification of non value adding activity that occur in a process to produce sprite bottle with size 10 Oz. Non value adding activity that occur in process causes the longer of production lead time, that not appropriate with companies estimation. Big picture mapping and value stream mapping are used for identify non value adding activity. In this case, we use process activity mapping, supply chain response matrix and quality filter mapping. From this research, there are five non value adding activity that cause the longer of production lead time. They are defect, waiting, excessive transportation, packaging and over production. After identify non value adding activity, the process will be improve to reduce production lead time.

From lean six sigma improvement, production lead time can be reduce from 9.2 days to 8.5 days. The estimation of defect that can reduce from the improvement is 1.2 percent. While the cost that can be reduce from the improvement is Rp. 352,775,245.

Keywords : lean six sigma, non value adding activity, defect, big picture mapping, value stream mapping