

ABSTRACT

Facility layout problems in the two industries are one of the factors that play an important role in increasing productivity. A bad layout can lead to ineffective transfers and increase costs. CV. Diantama Traffindo is a manufacturing company that produces various kinds of traffic signs. Fulfillment of customer requests at the company is by way of make to order or MTO. The results of the field study obtained from this study were that there were delays in the process of fulfilling requests due to inefficient production processes, causing activities outside working hours and soaring material handling costs. Material movement in the initial layout has a distance of 2,603 m per week, and material handling costs are IDR 1,231,010 per week. Therefore the researchers designed the facility layout to cut distances and minimize material handling costs. The method used is Systematic Layout Planning (SLP) to compare the initial layout with several proposed layouts. The results of the study show that the distance of the material passage on the production floor with proposal I has a change of 1,115 m per week, with a material handling fee of IDR 372,908. while proposal II has a distance change of 1,249.5 m per week, with a material handling fee of IDR 438,498. Based on the results of the research, proposed layout I is the best recommendation with a pruning of 69%.

Keywords: *SLP, Layout, Material Handling*