

## **ABSTRACT**

*PT Venamon is a company that manufactures footwear products as the main products in its production activities. Since its inception, the company has cooperated with the government in order to meet the needs of field service boots and shoes daily service. Routinely PT Venamon supplying shoes to the military and police are also other government departments.*

*In the production process, footwear PDH M25 in PT Venamon through several processes, namely the processes of cutting, skiving, sewing, assembly, and finishing. Problems experienced in the production process PT Venamon is backtracking on the displacement of the department skiving head sewing department, this affects the displacement distance increases production processes and material handling costs. Research carried out will be processed using CRAFT algorithm to make improvements in the production department of PT Venamon. CRAFT algorithm works by moving the department to the parameters minimum distance of material handling to get the best solution. Then some of the proposed layout compared to the cost of removal.*

*In this study, the layout selection is based on a comparison reasons the total moment of displacement and Benefit-Cost Ratio between existing layout, layout alternative 1, alternative layouts 2. The total moment of transfer of the resulting final layout taken from alternative layout 1 is 1459.6 meters per day and generating efficiency of 17% of the existing layout. It can be concluded that the CRAFT algorithm can be used to minimize the total moment of displacement is the goal PT Venamon..*

**Keywords:** *Layout, Facilities, CRAFT algorithm, Movement Moment, Simulation Cost*