

## **ABSTRACT**

*CV. Suho Garmino Ujung Berung is a convection company that produces hijab. To be more competitive, one of them, company must be able to increase productivity on the production floor and reduce cost.*

*From this observation, CV. Suho Garmino doesn't have a good layout. It seen from the departments and facilities in finishing and cutting department placement that have not been arranged properly. At the raw materials warehouse, fabric placed randomly so hard for finding, in addition existing warehouse capacity can't suffice because have not been arranged. One of the parameters of a good layout is minimize material handling cost which can be seen from the movement moment, which is calculated by multiplying the distance and frequency of material movement between facilities. Before preparing the new layout, it needs the initial layout, from-to chart, move-cost chart which becomes input for CRAFT algorithm in the WinQSB software. The parameters of a good warehouse layout is maximize the space utilization and faster fulfillment in raw material request. Class-based storage method and using rack will separate the type of fabric based on the type of fabric in the raw material warehouse.*

*Through this research, can be obtained the plant facility layout design is better, it can be seen from the movement moment which can be reduced up to 20.14% in the proposed plant layout, 29% in the finishing department proposed layout, and 9.6% on the cutting department proposed layout. Certainly, it potentially save the company's total production costs. In the proposed raw material warehouse layout increase storage capacity, so it can provide space for 1600 polybags.*

**Keywords:** *layout, CRAFT algorithm, movement moment, class-based storage*