

## **ABSTRACT**

*A factory will be more effective and efficient if the arrangement of the layout of production facilities is arranged in accordance with the production flow so that the production process runs well. The problem that is often faced by CV. Triwarna Indah Mulia is the ineffective traffic flow for the movement of raw materials or semi-finished goods, this is because the production flow has not been well ordered. The second problem is the delay in completion of work, one of the causes of which is caused by the layout of production facilities that are still inadequate. This research was conducted to analyze and evaluate the layout of production facilities in CV. Triwarna Mulia Indah .. The proposed improvements made to the layout of this production facility use the CRAFT method with WinQSB software. The design of the layout of this facility will change several areas of the production facility in accordance with the production flow, so as to reduce the distance between departments, lowering the cost of Material Handling.*

*Based on the results of the discussion and analysis carried out with WinQsb, a new layout proposal was proposed, namely by changing the raw materials department on the 1st floor. The new facility layout has changed and made it easy from one process to another.. Distance reduced from 36.6 meters to 20.5 meters, the difference between the two distances is 16.1m. The total cost of material handling before repairs is Rp3,653,966 per day while the total cost of proposed layout improvements is Rp3,187,721 per day, so the percentage difference in material handling costs is 14.62%. Based on the total material handling costs prior to the proposed layout improvement, the company can save material handling costs by Rp 466,245 per day.*

*Keywords : Layout of productions, WINQsb, Operation Process Chart, Distance between facilities area, material handling*