ABSTRACT

PT. Indovickers Furnitama is one of company with main business manufacturing is office equipment and hotel supplies. To survive and compete, not only quality and prices factors of products produced, on the other hand the company should also be able to increase productivity and efficiency. Existing conditions on the chair department in PT. Indovickers Furnitama doesn't have an efficient plant layout, this can be seen from the many operators who have many activity take the material and long distance moving between successive operations. This layout inefficiencies caused large material handling activities.

One effort to improve the flow of production processes and inefficiencies in layout is to redesign the layout of the facility with an approach that can minimize the material handling activities. Meanwhile, to minimize material handling activities can be seen from the moment of displacement which is calculated by multiplying the distance and frequency of materials movement between facilities. In this study, the design layout is based on process type layout (process layout). Before designing the new layout, it takes the initial layout, from-to-chart, move cost-chart which become input for CRAFT algorithm. CRAFT algorithm in this research contained in the software named winQSB.

Through this research, can be obtained the layout design is more efficient, it can be seen from the movement moment which can be reduced up to 30.86% in the proposed layout. This reduction if projected in a statement Tomkins and White (1996) that 20-50% of the total cost of production cost, then the layout of this proposal would save about 6-15% of the cost of manufacturing in each month.

***Keywords** : Layout, CRAFT algorithm, Movement moment*