ABSTRACT

Production scheduling is one of elements in the planning and production control that as an important role in keeping the delay in completion of a *job* can be kept to a minimum and target production quantities are determined for a certain period can be met. Therefore, production scheduling need to be considered and performed as a reference in obtaining the maximum utility of production resources and production capacity, which will affect the level of customer satisfaction (customer satisfaction).

In the *job* shop system, which processed *job* shop usually has a flow pattern of the operation process and the processing time is different from each another and each *job* consists of several operations that each is processed in a particular machine. This resulted in the possibility to produce a proper scheduling with optimal results is difficult and requires a relatively long computing time. Many heuristic methods have been developed to produce the proper scheduling with computation is relatively long. One is the method applied in this study, the *Shifting Bottleneck Heuristic* methods. *Shifting Bottleneck Heuristic* is a method scheduling that resolves the problem of routing engines, especially machines that run into bottlenecks with the objective function minimizing the *makespan* (the time needed to complete the entire operation of a *job*).

Based on calculations on data processing, obtained results that the time needed to complete the seven *job* amounted to 34700,4 minutes. While the time are targeted by company by using SPT *(Shortest Processing Time)* scheduling method is 38701,2 minutes. It turns out that the results obtained using the *Shifting Bottleneck Heuristic* methods can produce the *completion time* (*makespan*) is less than the time were targeted by the company. This suggests that magnitude of the difference in time between the *completion time* of *job* by using the method of *Shifting Bottleneck Heuristic* and the targeted company to complete the *job* amounted to 4000,8 minute.

KEY WORDS *:* ***Production scheduling, Job shop, Makespan, Shifting Bottleneck Heuristic***