ABSTRACT

Industrial Manufacturing in recent day have tighten competition. They must capable to winning the competition. CV. MUJI KARYA is a Middle Industrial Manufacturing which have challenge to win the competition. They used The Scheduling System for the Strategy Company, because they Industrial Job-shop. A good Scheduling if the company capable to finish the order from customer appropriate with the Due-date. But, many problem have to come in shop floor during Scheduling is done. Makespan each job have big value, Job Tardiness is very much. Utilization of machine is very low. In this research, researcher try to the development of method of Forward Scheduling by taking some benefit characteristic from Algorithm Kusiak. It can be, because some characteristic from algoritm Kusiak can modification for production non-FMS. Also will be used Theory of Constraint to check the constraint which have often happened in the shop-floor. From the scheduling development result we have got by value performance for a few criterion is increased. Makespan can decreased from 71,52 to 57,15. Utilization of machine can increased from 47,5% to 50,09%. Overtime have influence if they used to solve the problem of critic resources. From the Theory of Constraint analized we have got some new rule which can be to solved a constrint in shop floor.

Keyword : Job-Shop Scheduling, Forward Scheduling Method, Kusiak Algorithm, Theory of Constraint.