

ABSTRACT

One of part from PT. Krakatau Steel factory is BLP factory which is produced hot steel in many size, type and dimension appropriate with consumer order. Therefore, in this case is needed production and raw material planning which support production process. If raw material is not supplied so production will obstacle and it cause delayed order which receipt by consumer.

This company performs their production relevant by market demand in amount and type of product which expected by consumer, in order to it make changing in production planning. By changing of production planning in each period so order and raw material which imported from foreign can be appear the problems, such as delayed in production which caused by lack in raw material supply in order to consumer's service will delayed. So, for it is needed appropriate production and raw material planning, so service to consumer can enhanced.

Accounting process of production planning in this research is adapted by company's condition. Production planning process start by forecasting with relevant methods conformity data patern, then make the aggregate planning by Level Strategy, after that performs the disaggregate planning to determine schedule of main production and performed checking the capacity by Rough Cut Capacity Planning by Bill of Labor method, finally as final stage performs material planning by Material Requirement Planning by seven lot size methods. From there, we will compare all methods to be choose for minimizing cost of material.

According the result of data processing, Master of Main Production result can be fulfill by production capacity available. And for minimizing cost material planning selected by four methods lot size which gave a same result cost. The methods are PPB/ LTC method, POQ method, Silver Meal method, and Wagner-Within method. Total cost is 132.459.699,- rupiahs. At a guess in this research, the company will be doing save cost until 92.540.301,- rupiahs.

Key words : Master production Schedule, Material Requirement Planning, Lot Size Methods