

SUMMARY

The thesis entitled "Analysis of Application of Material Requirement Planning (MRP) in Planning of Raw Materials Needs To Improve Efficiency at PT. Cahaya Tirta Rasa Tong Tji in Tegal City - Central Java ". The purpose of this research is to (1) find out the effectiveness and efficiency of MRP method application in planning of raw material supply of PT. Light Tirta Rasa "Teh Tong Tji". (2) to know the best method in planning of raw material inventory of PT Cahaya Tirta Rasa. The method used is qualitative descriptive by analyzing the application of Material Requirement Planning (MRP) which begins by analyzing master production schedule, product structure, and material requirement list, and end by analyzing the optimal order quantity for each raw material.

Based on the results of research and analysis that have been done show that (1) The recommended lotting technique is the EOQ (Economic Order Quantity) method because the total cost that appears smaller than other lotting techniques although for some raw materials the smallest cost can be found using techniques LFL (lot for lot) or PBB (Part Period Balancing). (2) Product structure data and inventory status records are very influential to the process of planning the material needs / raw materials of tea. (3) The amount of inventory should be well controlled so that it is not at an excessive level because it can lead to huge cost of storage which ultimately makes the total cost greater. (4) The numbers on the MRP report are the ideal numbers that on the implementation in the field should be adjusted with some things such as minimum order of goods. (5) In order to avoid negative and excessive raw material inventory, it is expected that the planning stage can be done as accurately as possible so as not to cause unnecessary cost or loss of opportunity to fulfill consumer needs.

Implication of this research is as an effort to know the amount of optimal order for requirement of tea raw material. The way that can be done is by Technical Economic Order Quantity (EOQ) can be used to calculate and plan the needs of other raw materials and needed to make other products. The selected lot sizing technique does not become the standard reference for Tong Tji. This is because in the determination of the optimal lot size for each raw material is affected by the amount of raw material requirements, ordering costs, and storage costs for each raw material that can change. Thus, it is necessary to make changes to the ordering costs and storage costs of each raw material to obtain accurate calculations.

Keywords: *Raw Material Planning, Inventory, Material Requirement Planning (MRP)*