ABSTRACT

MKS factory is one of the factories owned by PT ABC which is engaged in FMCG and located in an area Cicurug. MKS factory specialized only produce bottled water . MKS still can not meet the consumer demand and did not reach the minimum target delivery due to lack of availability of inventory and delivery capacity so that demand is not consummated. MKS therefore requires an allocation planning and scheduling freight distribution so as to meet consumer demand. One method that can be used is the Distribution Requirements Planning (DRP).

DRP method is a method that handles the procurement of the product on a distribution network so as to meet the demand become more optimal. With DRP, companies can specify the location of the inventory needs and ensure that consumer demand will be met by the fulfillment source. The purpose of the DRP itself is sending supplies to customers with effective capacity planning through delivery and shipment assignment.

In this study, the data required is the demand of every DC and Depo during 2014, inventory at end of period, set-up cost and handling cost for each DC and Depo , lead time, and unfulfilled demand. DRP performed on each DC and Depo with demand during 2014. The lot sizing method used is Lot For Lot with the results of the set-up cost and handling cost is the smallest cost. The end result of this study is a planning and scheduling proposals for the year 2014 with the fulfillment of the demand to 100% of actual conditions only 79%.

Keywords : Distribution, Order Fulfillment, Lot Sizing, Distribution Requirement Planning, Forecasting