ABSTRACT

PT. Caterindo Citra Rasa is a company that provides catering services for big events such as weddings, seminars, and conferences. The company is frequently experienced excess supply of raw materials so that the total inventory cost by using the reservation system that is currently done is quite high. The company placing an order only to use intuition of personnel in the inventory, if the supply system does not do repairs then the company will suffer losses continuously.

The purpose of this study was to determine the optimal order quantity using the factor of expired foods and to minimize total inventory cost. The calculation of the optimal order quantity by a factor of expired food influenced by booking fees, cost of storage, and costs of raw materials. Booking fees obtained from telephone charges, invoices, and courier. Storage cost is calculated using the cost of electricity and depreciation costs as a storage cooler.

Planning inventories were performed using the method of Material Requirement Planning (MRP) and using the method of Dynamic Lot Sizing in determining the appropriate lot sizing. Based on the results of calculations carried out the dynamic lot sizing method which can minimize total inventory cost is the method Lot For Lot (LFL) and Fixed Period Quantity, with that method, the total inventory cost incurred weeekly the company is Rp 188.963.735, so that companies can save costs by Rp 3.988.632/ week.

In this study provides an application to calculate the total cost of inventory. This research is expected to help the company to make decisions about ordering raw materials and easier for the company to count the number of reservations and customer data recapitalize.

Keywords: *Material Requirement Planning* (MRP), *Dynamic Lot Sizing*, *Order Quantity, LFL, Fixed Period Quantity.*