

## CHAPTER 2

### LITERATURE REVIEW

This research conducts about finding the appropriate method to define the order point and order lot-size. The analysis uses the consideration factors as holding cost, shortage cost, and the setup cost. The final aim is in order to gain maximum profit.

The previous research that have been conducted and having a relationship with this final project, such as:

Richi (2006) has conducted the research at PT Ekadharna Tape in Yogyakarta. This research conducted the inventory on a retailer system. The aim of this research is to know the number of product must be ordered and when the company must order the products to get optimal inventory system condition, considering about the inventory cost.

Dewanti (2006) has conducted the research at PT Tosalena Eksporindo. The objective is to know how much and when to order the material to gain minimum inventory cost using EOQ probabilistic method.

Nicolas (2006) has conducted the research about the Raw Material Inventory Planning and Control in UD Maju Jaya, the shrimp-and-fish industry. The simulation was done using POWERSIM (Power Simulation) as the software, with consideration of inventory factor, order factor, damage, usage, shortage, and cost factor.

Yeni (2005) has conducted the research about Tuna Inventory Planning in PT Jui Fa International Foods.

This research conducted the raw material inventory system behavior, using the dynamic system approach with the help of POWERSIM software to find the minimized total cost and to define the order point and quantity.

Aryana (2006) has conducted the research by doing the case study in PT Macanan Jaya Cemerlang about the Paper Inventory Planning. This research aims to define the order point and the order quantity, in order to minimize the total cost. The analysis uses Microsoft Excel as the software to vary the lot size.

This final project doesn't mainly aim in defining the order point and order quantity like the other research above does, but it focuses in proposing a new and more appropriate method in estimating the order point and order quantity. The proposed method is expected to be able to help in defining which chemicals should be ordered, the quantity to be ordered, and the ordering point. This research uses the Microsoft Excel software for data processing.