INVENTORY CONTROL SYSTEM FOR UNCERTAIN DEMAND AND SUPPLY
(Case study of PT.XYZ)

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Abstract

In the inventory control system, demand and supply uncertainty is one of the real phenomena that will definitely happen. It is certainly can disrupt the production process and result in losses to the company. Economic Order Quantity Back Order Model or EOQ Back Order only used to overcome uncertain demand with the possibility of running out of stock (stock out) so that the required inventory reserves. EOQ Back Order model doesn’t take into account the availability of raw materials, where these conditions will often be experienced by a manufacturing company. In this thesis studied Fuzzy inventory control models which can be used in the inventory system with demand and supply uncertainty that aims to get the optimal order quantity and reorder point, so that the total cost of inventory is minimum. On the case studies were performed on PT. XYZ, fuzzy inventory control models able to generating the most minimum total cost of inventory among EOQ model and the model that used by the company policy.

Keywords : Fuzzy Inventory Control System, EOQ Back Order, Inventory Control System, Demand and Supply Uncertainty