ABSTRACT

The availability of spare parts is very crucial thing for manufacturing company in order to support the continuity of production activities. PT XYZ is a manufacturing company which produces thread into fabric. In this case, inventory control of spare part is not properly managed. The inventory level of spare part in warehouse is always more than inventory policy of the company itself or called overstock which causes total inventory cost is always high. Company always press on the order fulfillment of spare parts to prevent downtime on the machine which decrease performance of production so order quantity of spare part is always excessive or not optimal. In this research, global inventory policy is conducted in order to minimize total inventory caused by using periodic review approach (R, s, S) method. This inventory policy will be calculated using power approximation to produce total saving cost of holding cost by 31 % while total order cost decreased by 7 %. Overall, this inventory policy can minimize total inventory cost by 7 % or equal to Rp138.902.742.

Keywords: Inventory, Overstock, Spare part, Periodic Review, Power Approximation