

## **ABSTRACT**

*XYZ is a company that is engaged in distribution of pharmaceutical products to manage product its vendor in the form of bulky and partial case stored in the shelf and bin. On inventory management at PT. XYZ common stock at SKU's shape over bulky to cause over-capacity and going out of stock at partial SKU's so that demand can not be fulfilled*

*Problems over stock can be solved by using probabilistic models inventory systems P and Q with the calculation Hadley Model-Within to determine the optimum number of orders. Partial SKU's control using Order Point, Order quantity (s, Q) System that its replenishment process would be controlled by kanban cards to fulfill the order fullfilment.*

*Calculation of the total cost of inventory using existing condition PT.XYZ Periodic Review Model produces 41% savings from existing conditions. But the calculation using the Model Q result in savings of 62%*

*Keyword: P Model, Q Model, Hadley-Within, Order Point, Order quantity (s,Q), Kanban Card*