

ABSTRACT

PT ABC is one of the big companies engaged in services. Has two types of business, namely drilling services for mining and trading services which is a trading business that supplies the logistics needs of a company. PT ABC has three offices, namely head office located in Sidoarjo temple area, branch office of Pekanbaru and Jakarta. In the inventory terms, this company has been dealing with irregular demand which is lumpy. In 2016, the stock reached 60,774 units when demand is 13,175 units and make the high total inventory cost as much as \$10,690.51 per year.. The model that is suggested for this problem is Periodic Review System under normal distribution data over lead time was performed in one of PT ABC's central warehouse in Duri, Riau. By using the Periodic Review System as the proposal policy to reduce the overstock that kind is used according to the ABC analysis of each item, the percentages of reduction is up to and could save the total inventory cost up about 92.24% or equals to USD(\$) 9,861.35.

Keywords: Irregular Demand, Lumpy, ADI-CV, Normal Distribution, Periodic Review (T,r,R), Periodic Review (T,R), Overstock.