

## **ABSTRACT**

PT. SMA is a company located in Sunter, Pegangsaan Dua, Cikarang, Cibitung and Cikampek engaged in automotive business which aims to fulfill demands for motorcycles in Indonesia. PT. SMA currently has a total production capacity of 4,2 million unit of motorcycles yearly. PT. SMA Pegangsaan Dua produces 5 types of motorcycles. This research is conducted in raw material 1 warehouse at PT. SMA Pegangsaan Dua, Kelapa Gading.

PT. SMA Pegangsaan Dua imposes an inventory policy upon which monthly order of parts interval and constant order quantity are determined without concerning the maximum inventory level and inventory remains in warehouse. The unbalance between the constant amount of production quantity and the fluctuating supplier demand for parts gives rise to the overstock problem which causes the increase in total inventory cost. Since the demand for raw material is probabilistic, the improvement is carried out on the optimal order lot size and order interval of raw material.

Inventory policy is started by calculating the amount of raw material needs based on its dependence on finished goods. It is calculated by using continuous review (s,S) model, which results in total inventory cost saving at 17% a year or Rp 359.487.227.529,57.

Keywords: inventory, overstock, economic order quantity, continuous review (s,S) model, Hadley-Within model