

ABSTRACT

The inventory control of LDPE raw materials at UHI Plastic Engineering in Bandung still faces an imbalance between procurement and production needs due to frequent ordering, which leads to excess stock. The company has not yet applied an appropriate inventory control method, resulting in suboptimal total inventory costs. This study employs the Economic Order Quantity (EOQ) method to compare the company's current inventory practices with the EOQ approach in order to minimize costs. The application of EOQ generated a total inventory cost of IDR 1,027,847, with an optimal order quantity of 778 kg per order or 3,890 kg annually, five orders per year, and a safety stock of 15 kg. These findings indicate that the EOQ method is suitable for UHI Plastic Engineering, as it can reduce inventory costs compared to the company's existing approach.

.Keywords : Economic Order Quantity (EOQ), Raw Material Inventory, Inventory Cost