

ABSTRACT

AutoStock, as a subsidiary of PT Auto Serba Digital, acts as a wholesale entity that offers product supply, storage, packaging and delivery services to partners. The main problem faced by AutoStock is the imbalance between the amount of inventory and demand, which results in the phenomenon of overstock and understock. This not only has an impact on decreasing the efficiency of warehouse operations, but also causes overall inventory cost overruns. This research aims to propose a solution based on the Economic Order Quantity (EOQ) method in inventory control and the Class-Based Storage (CBS) method in product storage strategy. Through the EOQ approach, the research succeeded in determining the optimal purchase quantity (Q^) that significantly reduced the total inventory cost. Meanwhile, the CBS approach resulted in an average increase in warehouse storage space utility of 25.282%, reflecting an increase in efficiency in the utilization of warehouse space area and volume. The combination of these two methods shows an interconnected synergy in product inventory management. The results of this study not only address the need for operational cost efficiency and decreased operational efficiency, but also contribute to modern data-driven product inventory management practices.*

Keywords: *Class-Based Storage (CBS), Economic Order Quantity (EOQ), Inventory Control, Space Utility, Storage Strategy*