Analysis of Raw Material Inventory Control for Cowhide with the Economic Order Quantity (EOQ) Method at Kerupuk Rambak UD. Farid Jaya in Mojokerto Regency

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ABSTRACT

This research is a quantitative descriptive study aimed at analyzing the optimal amount of raw material inventory of cowhide, the amount of safety stock, the reorder point, the total inventory cost, and comparing the total inventory cost of raw materials between the previous control system and the raw material control system using the Economic Order Quantity (EOQ) method. The analytical tools used in this research include the Economic Order Quantity (EOQ) method, ordering frequency, reorder point, safety stock, and total inventory cost (TIC). The data processed consists of raw material ordering data from January to December 2023. The results of the study indicate that the quantity of raw material purchases by UD. Farid Jaya using the EOQ method is 5,055 kg with a purchase frequency of 12 times per year and a purchase lead time of 26 days. The safety stock using the EOQ method is 879.65 kg. Reordering is done when the remaining raw material is 1,253.65 kg. The total inventory cost using the EOQ method is Rp 13,900,805. The implementation of the EOQ method in the company can save total inventory costs by Rp 11,565,593.

Key Words: Cow Hide, Inventory Control, Raw Materials, EOQ, UD. Farid Jaya