Analysis of Soy Raw Material Inventory Control with the Economic Order Quantity (EOQ) Method at Agroindustri Tofu Pendowo 89 Banyuwangi Fredy Eka Ardhi Pratama, S.ST., M.ST. as chief counsellor

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ABSTRACT

This research is a type of quantitative descriptive research with the aim of analyzing the optimal amount of wheat soybean raw material inventory, analyzing the amount of safety stock, analyzing the right time to reorder (reorder point), analyzing the total inventory cost, and analyzing the comparison of the total cost of raw material inventory between the previous control system and the raw material control system using the Economic Order Quantity (EOQ) method. The analytical tools used are Economic Order Quantity (EOQ), Safety Stock (SS), Reorder Point (ROP), Total Inventory Cost (TIC) and POM-QM software. The results showed that in 2024 Agroindustri Pedowo 89 purchased 141,450 kg of raw materials with an order quantity of 3,000 kg or 60 bags / order and an order frequency of 46 times / year with an average of 4 times / month and a total inventory cost of Rp.3,489,130.00. Calculations using the EOQ method obtained the optimal amount of raw material purchases in 2024 of 9,974 kg or 120 sacks per order with a purchase frequency of 24 times / year or ordering once every 15 days and the total cost of inventory with the EOQ method is Rp.2,837,721.89. This shows that calculations with the EOQ method can save total inventory costs of Rp.651,408.

Keywords: Soybeans, Inventory Control, Raw Materials, EOQ Agroindustry Pendowo 89