

Analysis of Cassava Raw Material Inventory Control in Tape Production Using the EOQ Method in Bondowoso Regency

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ABSTRACT

This research is a quantitative descriptive study with the aim of analyzing the optimal amount of cassava raw material inventory, safety stock, reorder point, total inventory cost, and comparison of cassava raw material inventory control systems using company methods with the Economic method. Order Quantity (EOQ). The analysis in this study uses tools such as Economic Order Quantity (EOQ), order frequency, reorder point, safety stock, total inventory cost (TIC), and POM-QM software. Based on the results of the analysis that has been carried out, in 2022 the company purchases 211,600 kg of raw materials with an order frequency of 179 times per year and an average of 15 times per month and a total inventory cost of IDR 18,596,488.00. Calculations using the EOQ method show that the optimal amount of raw material purchases in 2022 is 14,648 kg per order, the frequency of purchases is 14 times per year, and the total cost of inventory based on the EOQ method is Rp. 2,929,555.00. Calculations based on the EOQ method in accordance with the analysis that has been carried out can save a total inventory cost of IDR 15,666,933.00, but require special handling costs considering that cassava is a wet raw material and is easily damaged. These storage costs will of course add to the costs incurred, but these costs will be of long-term use for the company..

Keywords: *Economic Order Quantity (EOQ), Inventory, Raw Materials, Cassava*