Inventory Control Analysis of Robusta Raw Material with Economic Order Quantity (EOQ) Method at PT Cak Wang Macro Indonesia

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ABSTRACT

PT Cak Wang Macro Indonesia is a company that roasts various types of coffee, one of which is Robusta Tanggul coffee in Jember Regency. This research is a quantitative descriptive study which aims to analyze the comparison of the raw material inventory control system for Tanggul Robusta coffee implemented by PT Cak Wang Macro Indonesia using the Economic Order Quantity (EOQ) method. The EOQ method used in this research involves five technical analysis, namely optimal raw material purchases, order frequency, safety stock, re-order point, and total inventory costs (TIC). The data used is raw material inventory data and Tanggul Robusta coffee production data from January to December 2023. The results of the research show that in 2023 PT Cak Wang Macro Indonesia ordered 1.200 kg of Tanggul Robusta coffee raw materials with an order quantity of 50 kg per order. The frequency of orders made is 24 orders a year with a total inventory cost of IDR 1,776,096. Meanwhile, the implementation of the EOQ method shows that the optimal order quantity per order is 154 kg with an order frequency of 7 orders during a year. The safety stock that must be reserved is 4 kg and the reorder point is when the stock reaches 8 kg. The total inventory costs that must be incurred are IDR 798,394. This shows that the application of the Economic Order Quantity method is more efficient because it can save total inventory costs of IDR 977,702.

Keywords: Inventory Control, Raw Materials, Tanggul Robusta Coffee, Economic Order Quantity