

Analysis of Wheat Flour Raw Material Inventory Control with the Economic Order Quantity (EOQ) Method at UD Mahveen Putry, Jember Regency
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ABSTRACT

This study is a quantitative descriptive research that aims to analyze the comparison between the 2024 wheat flour raw material inventory control system using the conventional method applied by UD Mahveen Putry with the Economic Order Quantity (EOQ) method. The method used is Economic Order Quantity (EOQ) with 5 analysis techniques, namely optimal raw material ordering (EOQ), order frequency, safety stock, re-order point, and total inventory cost. The data used is in the form of inventory data and data on the use of wheat flour raw materials in January-December 2024. The results of the study show that in 2024, UD Mahveen Putry will order 1,667 kg of raw materials with a frequency of 41 orders, as well as a total inventory cost of IDR2,229,120. Meanwhile, if using the EOQ method, the optimal quantity of raw material orders was obtained as much as 2,776 kg with 24 orders in one year. The safety supplies that must be provided or reserved are 822 kg and re-orders are made when the inventory reaches 1,072 kg. The total amount of inventory costs incurred using the EOQ method is IDR 1,544,214. This shows that the calculation using the EOQ method is more efficient by saving the total inventory cost of IDR 684,906.

Keywords: *Raw Materials, Wheat Flour, Inventory Control, EOQ, UD Mahveen Putry*