

***Analysis of Inventory Control of Wheat Flour Raw Materials Using the
Economic Order Quantity (EOQ) Method in Kenzo Bakery Business in Jember
Regency***

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ABSTRACT

Kenzo Bakery is a bread-making industry with the trademark "Kenzo" located in Delima Hamlet, Kemiri Village RT 02 RW 03, Panti District, Jember Regency.. This research is a quantitative descriptive study with the aim of analyzing the comparison of the wheat flour raw material inventory control system using the company's conventional method and the Economic Order Quantity (EOQ) method. Raw material inventory control refers to daily product sales so that conventional methods or assumptions are used in ordering raw materials every day. The company also does not apply Safety Stock and Reorder Point so that there is a risk of raw material shortages. This study uses the Economic Order Quantity (EOQ) method with several analysis techniques including optimal raw material purchases (EOQ), ordering frequency, Safety Stock, Reorder Point and total inventory costs (TIC). The data used is production data in 2024. The results of the study show that the company made raw material purchases in 2024 of 15,960 Kg with an order quantity of 60 Kg and 266 orders in a year. The total inventory cost incurred by the company is Rp. Rp. 3,116,390. The application of the EOQ method as a whole provides much more efficient results than the conventional method that has been used so far. The total inventory cost that must be borne by the company has decreased drastically to Rp. 409,336. This means that there is a cost saving of Rp. 2,707,054 if the company replaces the conventional method with the EOQ method. This finding shows that the EOQ method is not only able to optimize the number of orders and reduce the frequency of purchases, but is also very effective in reducing total inventory costs significantly. Therefore, the EOQ method can be a very feasible inventory control strategy to be implemented sustainably by companies in order to improve operational efficiency and business sustainability.

Keywords : Wheat Flour, Inventory Control, EOQ, Bakery Kenzo