Analysis Of Wheat Flour Raw Material Inventory Using the Economic Order Quantity (EOQ) Method at Afra Bakery Probolinggo

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A*BSTRACT*

This study was conducted with the aim of knowing and identifying the optimal amount of wheat flour raw material inventory at Afra Bakery Probolinggo. This study is classified as descriptive research with quantitative methods. Afra Bakery is a home industry that produces various types of bread with wheat flour as the main raw material located in Sebaung Village, Gending District, Probolinggo Regency. This study uses the EOQ method and POM-QM software so that the optimal ordering of wheat flour, the reorder point, the amount of wheat flour reserve stock needed (safety stock) and the total amount of optimal inventory costs in procuring wheat flour can be determined. The results of the study at Afra Bakery in 2024 before using the EOQ method were orders of 7,775 kg of wheat flour with a quantity of 121 kg and 63 times the frequency of orders and the inventory costs incurred were Rp1,518,159. Meanwhile, if using the EOQ method, the results obtained are the optimal order quantity of 780.41 kg and 10 times the purchase frequency in one year for 30 days once and a minimum inventory cost of Rp463,880. Reorder point with the EOQ method is 188.65 kg with a reserve stock (safety stock) of 163.65 kg.

Key words *: Inventory Control, Materials, wheat flour , EOQ*