

**PENGENDALIAN BIAYA DENGAN PENERAPAN *ECONOMIC ORDER*
QUANTITY SEBAGAI SOLUSI PERMASALAH *OVERSTOCK* PADA UMKM
MAHREN BAKERY DAN CAKE**

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ABSTRAK

Penelitian ini bertujuan menganalisis pengendalian persediaan bahan baku pada Mahren Bakery untuk mengatasi masalah ketidakpastian stok dan risiko *stockout* akibat metode tradisional. Metode yang digunakan adalah kuantitatif dengan model *Economic Order Quantity* (EOQ), *Safety Stock*, dan *Reorder Point* (ROP). Hasil penelitian menunjukkan bahwa metode EOQ lebih efisien dibandingkan metode tradisional. Untuk komoditas Gula Pasir, kuantitas pemesanan optimal adalah 61 unit dengan frekuensi 24 kali setahun. Mengingat fluktuasi pemakaian, ditetapkan *Safety Stock* sebesar 1.272 Kg untuk Gula Pasir dan 1.905 unit untuk Telur Ayam guna mencegah terhentinya produksi. Titik pemesanan kembali (ROP) ditetapkan pada level 1.275 Kg untuk Gula Pasir dan 1.910 unit untuk Telur Ayam. Kesimpulannya, penerapan metode EOQ dan *Safety Stock* yang akurat mampu meminimalkan risiko kekurangan bahan baku serta mengoptimalkan total biaya persediaan bagi Mahren Bakery. Penentuan ROP yang tepat memastikan pesanan baru dilakukan sebelum stok habis, sehingga menjamin keberlanjutan operasional secara efektif.

Kata Kunci: Pengendalian, Persediaan, *EOQ*, *Safety Stock*, *Reorder Point*, Mahrn Bakery.

***COST CONTROL BY APPLYING ECONOMIC ORDER QUANTITY AS A
SOLUTION TO OVERSTOCKING PROBLEMS AT MAHREN BAKERY AND
CAKE SMALL AND MEDIUM ENTERPRISES***

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ABSTRACT

This study aims to analyze raw material inventory control at Mahren Bakery to overcome the problems of stock uncertainty and stockout risk caused by traditional methods. The methods used are quantitative with the Economic Order Quantity , Safety Stock, and Reorder Point (ROP) models. The results show that the EOQ method is more efficient than traditional methods. For granulated sugar, the optimal order quantity is 61 units with a frequency of 24 times a year. Given the fluctuations in usage, a safety stock of 1,272 Kg for granulated sugar and 1,905 units for chicken eggs is set to prevent production stoppages. The reorder point (ROP) is set at 1,275 Kg for granulated sugar and 1,910 units for chicken eggs. In conclusion, the application of accurate EOQ and Safety Stock methods can minimize the risk of raw material shortages and optimize total inventory costs for Mahren Bakery. Determining the right ROP ensures that new orders are placed before stocks run out, thereby guaranteeing effective operational continuity.

Keywords: *Inventory Control, EOQ, Safety Stock, Reorder Point, Mahren Bakery.*