

ABSTRAK

PT. Mayora Indah TBK Jayanti 1 merupakan perusahaan yang bergerak di sektor makanan. PT. Mayora Indah TBK Jayanti 1 sering mengalami kekurangan pada bahan baku Tepung Kelapa dikarenakan perusahaan belum menerapkan sistem manajemen persediaan yang tetap. kekurangan *Stock* ini mengakibatkan terhambatnya pengiriman barang untuk produksi. Penelitian ini bertujuan untuk mengatasi kekurangan *Stock* bahan baku Tepung Kelapa dengan mengetahui persediaan produk menggunakan metode peramalan terbaik dan metode pengendalian persediaan dengan biaya yang paling optimal. Pada penelitian ini menggunakan metode peramalan *Moving Average*, *Trend Linear*, dan *Trend Kuadratik*. Dari metode peramalan yang digunakan, didapatkan metode peramalan terbaik adalah *Trend Linear* karena memiliki nilai *Error* paling kecil yaitu $MAD = 26$, $MSE = 891,6$, $MAPE = 8,38\%$. Pendekatan teknik *Lot Sizing* menggunakan metode *Economic Order Quantity (EOQ)*, dan *Period Order Quantity (POQ)*. Dari hasil penelitian menunjukkan bahwa metode pengendalian persediaan *Periode Order Quantity (POQ)* adalah yang lebih baik dengan Jumlah Pemesanan = 2129 sak, Periode Pemesanan = 3 kali per 20 minggu, *Safety Stock* = 45 sak, *Re Order Point* = 416 sak, Total Biaya Persediaan = Rp. 22.405.594, Total biaya persediaan / 5 bulan = Rp. 67.216.782.

Kata Kunci : Pengendalian Persediaan, Peramalan, Tepung Kelapa, *Economic Order Quantity (EOQ)*, *Period Order Quantity (POQ)*.

ABSTRACT

PT. Mayora Indah TBK Jayanti 1 is a company operating in the food sector. PT. Mayora Indah TBK Jayanti 1 often experiences shortages of Coconut Flour raw materials because the company has not implemented a fixed inventory management system. This stock shortage results in delays in the delivery of goods for production. This research aims to overcome the shortage of stock of raw materials for coconut flour by knowing product inventory using the best forecasting method and inventory control method with the most optimal costs. This research uses the Moving Average, Linear Trend and Quadratic Trend forecasting methods. From the forecasting method used, it was found that the best forecasting method was Trend Linear because it had the smallest error value, namely $MAD = 26$, $MSE = 891.6$, $MAPE = 8.38\%$. The Lot Sizing technique approach uses the Economic Order Quantity (EOQ) and Period Order Quantity (POQ) methods. The research results show that the Period Order Quantity (POQ) inventory control method is better with Number of Orders = 2129 sacks, Order Period = 3 times per 20 weeks, Safety Stock = 45 sacks, Re Order Point = 416 sacks, Total Inventory Cost = Rp. 22.405.594, Total inventory costs / 5 months = Rp. 67.216.782.

Keywords: Inventory Control, Forecasting, Coconut Flour, Economic Order Quantity (EOQ), Period Order Quantity (POQ).