

Abstrak

PT. CLAW Mranggen Demak merupakan produsen alat-alat dan perlengkapan penunjang kegiatan outdoor. Dalam manajemen operasinya PT.CLAW ini belum sepenuhnya memaksimalkan pengolahan informasi mengenai perencanaan kebutuhan bahan baku produksi, sering kali pengadaan bahan baku disini melebihi kapasitas produksi yang ada. Akibatnya bahan baku di gudang mengalami penumpukan (Overstock) sehingga menimbulkan biaya simpan yang berlebih. Sistem Material Requirement Planning membutuhkan beberapa tahapan proses pengolahan data, forecasting disini menggunakan 3 metode peramalan yaitu moving average, eksponensial smoothing dan linier regresion, sesuai eror terkecil terpilihlah linier regresion dengan MAD 8,987 , MSE 120,07 dan MAPE 1,32%. Sedangkan untuk lottingnya menggunakan metode lot for lot dengan biaya Rp. 87.878.837, metode Period Order Quantity sejumlah Rp 89.940.678 dan Economic Order Quantity sejumlah Rp 137.205.157. Dengan ini didapatkan biaya perencanaan persediaan bahan baku yang terpilih sebesar Rp. 87.878.837 lebih hemat dari metode yang digunakan perusahaan sebesar Rp 110.129.183. Dengan begitu metode MRP dapat menjadi alternative solusi permasalahan yang dihadapi oleh PT CLAW untuk perencanaan persediaan bahan baku produk tas carrier.

Kata Kunci : Inventory, Perencanaan Persediaan Bahan Baku, MRP (Material Requirement Planning).



Abstract

PT. CLAW Mranggen Demak is a manufacture of tools and equipment to support outdoor activities. In its operational management, PT.CLAW has not fully maximized the processing of information regarding the planning of production raw material requirements, often the procurement of raw materials here exceeds the existing production capacity. Raw materials in the warehouse experience accumulation (overstock), causing excessive storage costs. The Material Requirement Planning system requires several stages of data processing, forecasting here uses 3 forecasting methods, moving average, exponential smoothing and linear regression, according to the smallest error linear regression with MAD 8.987, MSE 120.07 and MAPE 1.32% is chosen. Whereas for the lotting using the lot for lot method at a cost of Rp. 87.878.837, Period Order Quantity of Rp 89.940.678 and Economic Order Quantity of Rp 137.205.157. With this, it is obtained that the selected raw material inventory planning cost of Rp. 87.878.837 is more efficient than the method used by the company of Rp 110.129.183. That way the MRP method can be an alternative solution to the problems in PT CLAW for planning raw material supplies for carrier bag products.

Keywords: Inventory, Raw Material Inventory Planning, MRP (Material Requirement Planning).

