

ABSTRAK

PT. Primamitra Abadi Sentosa adalah perusahaan distributor lampu LED bermerk primalux yang sudah mendapatkan berbagai penghargaan sertifikat internasional, berbagai macam lampu LED yang tersedia seperti *Tube Light*, *Street Light*, *Highbay Light*, *Bulb Light*, dll. Produk dengan peminatan tertinggi ialah *Tube Light 18 watt*. Pada bulan Juni 2021 – Mei 2022 produk tersebut terjual mencapai angka 20000 unit. Permasalahan yang sering dialami perusahaan ialah sering terjadi ketidaksesuaian antara tingkat pemesanan dengan tingkat permintaan dan juga mempengaruhi kuantitas stok yang tersedia bahkan seringkali ada permintaan mendadak dalam jumlah yang besar, perusahaan harus memesan dahulu lampu tersebut dari Taiwan. Perusahaan harus menerapkan kebijakan dalam perencanaan persediaan dan memiliki perhitungan yang tepat agar tidak terjadi kelebihan dan kekurangan dalam pengendalian persediaan. Dalam penelitian metode yang digunakan untuk peramalan yaitu metode *Moving Average* 3 bulan, *Weight Moving Average* (*Weight* 6), dan *Single Eksponential Smoothing* nilai Alpha 0,1-0,5. Metode pengendalian persediaan menggunakan metode *Economic Order Quantity* (EOQ), *Economic Order Interval* (EOI), *Min-Max Stock*, Q Model, dan P Model. Hasil peramalan terbaik ialah metode *Single Eksponential Smoothing* nilai Alpha 0,1 dengan nilai kesalahan terkecil, hasil terbaik dari perhitungan persediaan 12 periode selanjutnya ialah metode *Economic Order Interval* dengan total biaya persediaan lebih kecil dibanding metode lainnya.

Keywords : *Permintaan, Persediaan, Peramalan, Single Eksponential Smoothing, Economic Order Interval*

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ABSTRACT

PT. Primamitra Abadi Sentosa is a distributor company of Primalux branded LED Light that have received various Internasional certificate awards, various kinds of LED light are available such as Tube Light, Street Light, Highbay Light, Bulb Light, etc. the product with the highest interest is the 18 watt Tube Light. In June 2021 – May 2022, the product sold reached 20000 units. The problem that is often experienced by companies is that there is often a mismatch between the level of order and the level of demand and also affects the quantity of available stock and often there is a sudden demand in large quantities, the company must first order the lamp from Taiwan. Companies must implement policies in inventory planning and have the right calculations so that there are no excess and deficiency in inventory control. In the research, the methods used for forecasting are the 3-months Moving Average, Weight Moving Average (Weight 6), Single Eksponential Smoothing alpha values of 0,1-0,5. Inventory control method using Economic Order Quantity (EOQ), Economic Order Interval (EOI), Min-Max Stock, Q Model, and P Model. The best forecasting result is the Single Eksponential Smoothing method with an Alpha value of 0,1 with the smallest error value, the best result from the inventory calculation for the next 12 periods is the Economic Order Interval method with a smaller total inventory cost than other methods.

Keywords : Demands, Inventory, Forecast, Single Eksponential Smoothing, Economic Order Interval



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