

**Penerapan Metode Double Exponential Smoothing pada Peramalan
Purchase Order dan Profit Penjualan dengan Verifikasi Hasil Peramalan
menggunakan Grafik Pengendali Moving Range**

*Application Of The Double Exponential Smoothing Method In Purchase Order
Forecasting And Sales Profit With Verification Of Forecasting Results Using
Moving Range Controller Graphics*

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ABSTRACT

CV. Nuzul is a company engaged in the sale of building construction iron materials such as square pipes, round pipes, elbows, concrete, WF, and others. Currently, CV Nuzul does not yet have a forecasting information system related to purchase order to predict costs that will be required in the future and also how much profit will be obtained in the future. This study aims to overcome some of the above problems by creating a forecasting information system that is capable of estimating the value of purchase orders and profits in several future periods. Based on the above problems, the authors apply the Double Exponential Smoothing method. From the calculation results of forecasting purchase orders for elbow goods 4 x 4 KS using the double exponential smoothing method one parameter from brown the smallest MAPE value is 14.75% with an alpha of 0.8 and for sales profit forecasting using one parameter double exponential brown smoothing method has a MAPE value of 10.25% with an alpha of 0.8. while for drilling bolts 12 x 50, the calculation results for forecasting purchase orders using the double exponential smoothing method with two parameters from Holt the smallest MAPE value is 7.56% with alpha and gamma ($\alpha = 0.9$ and $\gamma = 0.5$), and forecasting sales profits using Holt's two-parameter double exponential smoothing method, there is a MAPE value of 7.09% with alpha and gamma ($\alpha = 0.9$ and $\gamma = 0.5$).

Key Word: *forecast, purchase order, profit, sales, double exponential smoothing, moving range, double exponential smoothing one parameter from brown*