**Abstract**

The demand forecasting is used when there is a need to predict a numerical parameter for which past results are good indicators of future behavior. Three forecasting techniques were evaluated using the provided data (past time periods data) of nine products of the industry. The three forecasting techniques evaluated are: the Exponential Smoothing Forecasting Model; the Exponential Smoothing with a linear trend Forecasting Model (Holt’s- Double) and Winters’- Triple Seasonality forecasting model. The Visual Basic for Applications (VBA) 6.0 version language was used to implement the functionality of these three above mentioned models for the creation of GUI and into Microsoft Excel for this study. Additionally, VBA was used to compute the Mean Absolute Error, which was used to compare each of the models. Overall, the exponential smoothing with a linear trend (Holt’s- Double) forecasting model is the best forecasting model for the examined business units. The exponential smoothing with a linear trend model (Holt’s- Double) should be used in the most cases where the coefficient of variance of the demand data is small. Winters’- Triple Seasonality model should be used in most cases where the coefficient of variance is of the demand data is large. The exponential smoothing with a linear trend forecasting model was the best forecasting model which resulted in the least absolute forecasting error of 0.29.Winters’ model was the better model after Holt’s- Double and resulted in the least forecasting error of 0.75.

**Key Words**: Demand forecasting; Time-series; Error calculation; Smoothing constants; Visual basic for applications; Graphical User Interface (GUI)