

Forecasting of Palm Oil Fruit Delivery Quantities Using the Trend Adjusted Exponential Smoothing: A Case Study

Abstract

Palm oil industry has increasingly become the important industry for Malaysia. However, only a limited number of researches have been conducted on improving the palm oil industries. This research attempted to contribute by improving forecast activity along the palm oil industry. Specifically, this research centred on the development of forecast software for a Malaysian based palm oil estate. The developed forecasting software can be used to assist the estate manager in predicting accurately their monthly delivery quantity to the palm oil mill. The forecast technique selected for this research was the trend adjusted exponential smoothing technique. The performance of the trend adjusted exponential smoothing technique based software was then compared to the naïve method. Comparison in the performance indicated that the trend adjusted exponential smoothing produces lower root mean square error, which is equivalent to 14.6% of error produced by the naïve method. This finding emphasises the efficiency of the trend adjusted exponential smoothing in predicting the monthly delivery quantity by the palm oil estate.