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Forecasting monthly cinnamon prices in Matra district using double exponential smoothing model

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A time series (y_t, $t=1, 2,\ldots,n$) is generally considered as an ordered sequence of measurements at equally spaced time intervals. The time series models are useful in many applications to understand the underlying forces and structure that produced the observed series and to forecast future events. In this study an attempt has been made to build a time series model to forecast monthly cinnamon prices of M-5 cinnamon in Matara district from 1996 to 2014. Plot of data clearly shows a trend which does not indicate any seasonality. The seasonality was tested using Kruskal-Wallis test (p-value = 0.995). Therefore double exponential smoothing method has been applied in this research study. In this study $\alpha= 0.990$ and $\gamma = 0.001$ have been selected as the most suitable smoothing constants. One-step and p-step forecasting methods can be used when double exponential smoothing method is used to forecast. According to the results of this study it has identified that the one-step forecasting method is suitable for predicting the monthly cinnamon prices for Matara district.

Key Words*:* Double exponential, smoothing constants, seasonality, M-5 cinnamon prices

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