Forecasting the price of petroleum products in Sri Lanka

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Crude oil, which has an important role in the global economy, can be recognized as one of the most important commodities for worldwide economic activity. This study leads to find the model to predict the future oil price in Sri Lanka with the time and factors effect on the oil price using regression analysis. This analysis is carried out with the monthly domestic prices of five petroleum products, Lanka petrol 95(LP95), Lanka petrol 92(LP92), Lanka auto diesel(LAD), Lanka super diesel(LSD), Lanka kerosene(LK) for 1990-2018. Trend analysis is conducted to find the models to predict future oil prices. According to that, either one or both linear and quadratic trend models are acceptable for all petroleum products. Regression analysis concluded that when the inflation rate(IR) is increased, the price of oil decreases for LP95 and also when market crude oil prices(MCOP) and dollar exchange rate(DER) are increased, the price of oil increases for all the petroleum products. Further, according to the best-fitted models, IR is not affected by the oil prices of LSD and LK. Furthermore, economic growth rate(EGR) is not affected by domestic oil prices in Sri Lanka.

Keywords: petroleum product prices, trend analysis models, multiple linear regression model

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