TITLE: Predictive Analytics for crude oil prediction using RNN-LSTM Neural network

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YEAR:2020

Prediction of future crude oil price is considered a significant challenge due to the extremely complex, chaotic, and dynamic nature of the market and stakeholder's perception. The crude oil price changes every minute, and millions was crude oil is influenced by many factors including news, supply-and-demand gap, labour costs, amount of remaining resources, as well as stakeholders' perception. Therefore, various indicators for technical analysis have been utilized for the purpose of predicting the future crude oil price. Recently, many researchers have turned to machine learning approached to cater to this problem. This study demonstrated the use of RNN-LSTM networks for predicting the crude oil price based on historical data alongside other technical analysis indicators. This study aims to certify the capability of a prediction model built based on the RNN-LSTM network to predict the future price of crude oil. The developed model is trained and evaluated against accuracy matrices to assess the capability of the network to provide an improvement of the accuracy of crude oil price prediction as compared to other strategies. The result obtained from the model shows a promising prediction capability of the RNN-LSTM algorithm for predicting crude oil price movement.

TITLE: Crude oil price using Artificial Neural network

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Crude oil is amongst the most important resources in today's world, it is the chief fuel and its cost has a direct effect on the global habitat, our economy and oil exploration, exploitation and other activities. Prediction of oil prices has become the need of the hour, it is a boon to many large and small industries, individuals, the government. The evaporative nature of crude oil, its price prediction becomes extremely difficult and it is hard to be precise with the same. Several different factors that affect crude oil prices. We propose a contemporary and innovative method of predicting crude oil prices using the artificial neural network (ANN). The main advantage of this approach of ANN is that it continuously captures the unstable pattern of the crude oil prices which have been incorporated by finding out the optimal lag and number of the delay effect that controls the prices of crude oil. Variation of lag in a period of time has been done for the most optimum and close results, we then have validated our results by evaluating the root mean square error and the results obtained using the proposed model have significantly outperformed.**TITLE:**

TITLE: Forecasting crude oil price using Artificial Neural network model

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YEARS:2021

In the advanced global economy, crude oil is a commodity that plays a major role in every economy. As Crude oil is highly traded commodity it is essential for the investors, analysts, economists to forecast the future spot price of the crude oil appropriately. In the last year the crude oil faced a historic fall during the pandemic and reached all time low, but will this situation last? There was analysis such as fundamental analysis, technical analysis and time series analyses which were carried out for predicting the movement of the oil prices but the accuracy in such prediction is still a question. Thus, it is necessary to identify better methods to forecast the crude oil prices. This study is an empirical study to forecast crude oil prices using the neural networks. This study consists of 13 input variables with one target variable. The data are divided in the ratio 70:30. The 70% data is used for training the network and 30% is used for testing. The feed forward and back propagation algorithm are used to predict the crude oil price. The neural network proved to be efficient in forecasting in the modern era. A simple neural network performs better than the time series models. The study found that back propagation algorithm performs better while predicting the crude oil price. Hence, ANN can be used by the investors, forecasters and for future researchers.