ABSTRAK

Peresmian Danantara sebagai lembaga pengelola investasi dan aset strategis negara pada 24 Februari 2025 berpotensi memengaruhi persepsi investor terhadap saham Badan Usaha Milik Negara (BUMN). Penelitian ini bertujuan menganalisis pengaruh peresmian Danantara terhadap pergerakan harga saham PT Telekomunikasi Indonesia Tbk (TLKM.JK) dengan menerapkan algoritma *Long Short-Term Memory* (LSTM). Data historis harga saham harian TLKM diperoleh dari *Yahoo! Finance* menggunakan API *yfinance*. Penelitian menggunakan metrik evaluasi *Root Mean Squared Error* (RMSE) dan *Mean Absolute Error* (MAE). Metode penelitian mencakup tahapan *preprocessing* data, pembagian *dataset* 80% data latih, 20% data uji, pembangunan model LSTM dua lapis dengan 256 *unit* dan *dropout* 0,3, pelatihan model selama 300 *epoch* dengan *batch size* 64, serta prediksi harga 20 hari perdagangan pasca peresmian Danantara. Hasil penelitian menunjukkan bahwa model LSTM yang dikembangkan mampu memprediksi harga saham dengan akurasi tinggi, ditunjukkan oleh nilai MAE sebesar 0,02217 dan RMSE sebesar 0,023, yang setara dengan MAPE 2,17%. Prediksi harga dalam 20 hari perdagangan pasca Danantara tidak menunjukkan pergerakan harga signifikan yang dapat diatribusikan secara langsung kepada peristiwa tersebut. Penelitian ini menyimpulkan bahwa peresmian Danantara tidak memberikan pengaruh signifikan terhadap harga saham TLKM dalam jangka pendek, mengindikasikan bahwa pasar mungkin telah mengantisipasi informasi tersebut sebelumnya atau dampaknya belum terlihat dalam periode pengamatan 20 hari perdagangan.

Kata kunci: Prediksi Saham, LSTM, BUMN, Danantara, Pembelajaran Mesin.

ABSTRACT

The inauguration of Danantara as a state investment and strategic asset management institution on February 24, 2025, has the potential to influence investor perceptions toward State-Owned Enterprise (SOE) stocks. This study aims to analyze the effect of Danantara's inauguration on the stock price movement of PT Telekomunikasi Indonesia Tbk (TLKM.JK) by applying the Long Short-Term Memory (LSTM) algorithm. Historical daily stock price data of TLKM were obtained from Yahoo! Finance using the yfinance API. The study employed Root Mean Squared Error (RMSE) and Mean Absolute Error (MAE) as evaluation metrics. The research methodology included data preprocessing, splitting the dataset into 80% training data and 20% testing data, constructing a two-layer LSTM model with 256 units and a dropout rate of 0.3, training the model for 300 epochs with a batch size of 64, and forecasting stock prices for 20 trading days following Danantara's inauguration. The results indicate that the developed LSTM model achieved high predictive accuracy, as reflected by an MAE of 0.02217 and an RMSE of 0.023, equivalent to a MAPE of 2.17%. The predicted stock prices over the 20 trading days after the inauguration did not exhibit significant movements that could be directly attributed to the event. This study concludes that Danantara's inauguration did not have a significant short-term impact on TLKM's stock price, suggesting that the market may have anticipated the information in advance or that the effect had not yet materialized within the 20-day observation period.

Keywords: Stock Prediction, LSTM, State-Owned Enterprise, Danantara, Machine Learning.