

ABSTRAK

Perkembangan teknologi digital telah membawa perubahan besar dalam investasi saham, mempermudah akses informasi dan transaksi melalui platform online dan aplikasi mobile. Di Indonesia, peningkatan jumlah investor saham sebesar 59,14% dari tahun 2020 hingga Agustus 2021 mencerminkan pergeseran menuju budaya investasi yang lebih inklusif, terutama di kalangan generasi muda. Teknologi digital juga memungkinkan penggunaan kecerdasan buatan (AI) dan machine learning (ML) dalam analisis pasar saham, seperti Support Vector Regression (SVR) yang efektif dalam memprediksi harga saham berdasarkan data historis dan sentimen pasar. Penelitian ini menggunakan data historis saham YG Entertainment dan berita yang beredar dari 22 Oktober 2018 hingga 12 Juni 2024 pada situs berita CNBC dan Detik. Sentimen analisis mengukur emosi dalam berita dan media sosial untuk menilai dampaknya terhadap harga saham YG Entertainment. Hasil uji korelasi menunjukkan bahwa skor sentimen memiliki pengaruh sangat kecil terhadap fluktuasi harga saham, dengan Pearson -0,29, Spearman -0,38, dan Kendall Tau -0,27 untuk kategori "Pelecehan dan Prostitusi", serta Pearson -0,25, Spearman -0,32, dan Kendall Tau -0,23 untuk kategori "Narkoba". Kategori "Pelecehan dan Prostitusi" paling sering menimbulkan sentimen negatif (64,94%), sementara kategori "Kegiatan Idol" paling sering menimbulkan sentimen positif (44,73%). Kategori "Narkoba" menunjukkan dampak seimbang, dengan 50% berita mempengaruhi harga saham secara positif dan 50% secara negatif. Walaupun skor sentimen memiliki pengaruh kecil terhadap fluktuasi harga saham, penerapan SVR dengan fitur skor sentimen terbukti meningkatkan performa model prediksi, terutama dengan normalisasi Z-Score (MAE 289.80, MAPE 0.0055 vs. MAE 292.60, MAPE 0.0056).

Kata kunci : SVR, Analisis Sentimen, Sentimen Berita, Prediksi Saham

ABSTRACT

The development of digital technology has brought about major changes in equity investment, making it easier to access information and transactions through online platforms and mobile applications. In Indonesia, the 59.14% increase in the number of equity investors from 2020 to August 2021 reflects a shift towards a more inclusive investment culture, especially among the younger generation. Digital technology also enables the use of artificial intelligence (AI) and machine learning (ML) in stock market analysis, such as Support Vector Regression (SVR) which is effective in predicting stock prices based on historical data and market sentiment. This research uses historical data of YG Entertainment shares and news from October 22, 2018 to June 12, 2024 on CNBC and Detik news sites. Sentiment analysis measures emotions in news and social media to assess their impact on YG Entertainment's stock price. Correlation test results show that sentiment scores have very little influence on stock price fluctuations, with Pearson -0.29, Spearman -0.38, and Kendall Tau -0.27 for the “Harassment and Prostitution” category, and Pearson -0.25, Spearman -0.32, and Kendall Tau -0.23 for the “Drugs” category. The “Harassment and Prostitution” category generated the most negative sentiment (64.94%), while the “Idol Activities” category generated the most positive sentiment (44.73%). The “Drugs” category showed a balanced impact, with 50% of the news affecting the stock price positively and 50% negatively. Although sentiment scores have little influence on stock price fluctuations, the application of SVR with sentiment score features is shown to improve the performance of the prediction model, especially with Z-Score normalization (MAE 289.80, MAPE 0.0055 vs. MAE 292.60, MAPE 0.0056).

Keywords: SVR, Sentiment Analysis, News Sentiment, Stock Prediction