

ABSTRACT

Dividend payout prediction is an important topic in financial analysis because the ability to predict dividend payments helps investors and portfolio managers in making strategic decisions. This study evaluates the effectiveness of fundamental company ratios, such as Earnings Per Share (EPS), Price-to-Earnings Ratio (PER), Return on Asset (ROA), Return on Equity (ROE), Debt-to-Equity Ratio (DER), and Firm Size, in predicting dividend payouts of companies on the Indonesia Stock Exchange (IDX) for the past 15 years (2009-2023). The Long Short-Term Memory (LSTM) method is used to capture temporal patterns in the data, with evaluations based on R-Squared, Mean Absolute Error (MAE), and Root Mean Squared Error (RMSE) metrics. The combination of EPS + PER + ROE features provides the best performance with $R^2 = 0.806$, $NMAE = 0.0403$, $NRMSE = 0.0695$ and $MAPE = 1.60\%$. Features such as DER and ROA provide marginal improvements. The use of Principal Component Analysis (PCA) produces lower performance ($R^2 = 0.5233$), indicating that manual feature selection is more effective. This approach produces a better prediction method than previous studies that used stock prices along with technical and fundamental analysis which produced MAE values = 0.1623, RMSE values = 0.2057 and MAPE values = 2.95%. This method offers great potential to support future investment decision making.

Keywords: *dividend payout prediction, LSTM, fundamental ratios, EPS, ROA, PCA*