ABSTRACT

This study investigates the effectiveness of two predictive models—logistic regression (O'Score) and Artificial Neural Network (ANN)—in forecasting corporate bankruptcy within Indonesia's textile and garment subsector from 2014 to 2023. Using a dataset of 130 observations derived from the financial statements of 13 companies listed on the Indonesia Stock Exchange (IDX), we compare the performance of both models in terms of predictive accuracy and classification reliability. Results show that ANN yields high accuracy in earlier periods but experiences performance degradation in recent years. Conversely, the logistic regression model demonstrates a more stable and gradually improving accuracy over time. While ANN is effective in capturing complex patterns and identifying early signs of distress, logistic regression provides more consistent predictions under shifting economic conditions. The findings highlight the importance of model selection in bankruptcy prediction and offer practical implications for investors, risk analysts, and corporate decision-makers.

Keywords: Bankruptcy, Financial ratios, Logistic regression, and Artificial Neural Network.