ABSTRACT

In the face of the global economic crisis and the resulting uncertainty, it is crucial for investors and management to predict a company's financial distress for decision-making. Therefore, the accuracy of a prediction tool is critical for company management when implementing steps to reduce the risk of failure during an economic crisis. By taking account of the company's financial ratios, this study intends to determine which the finest financial distress prediction model is for industrial sector companies in Indonesia. This research used samples from the industrial sector on the Indonesian Stock Exchange from 2017 to 2021 and a predictor variable in the form of financial ratios to compare the accuracy of the artificial neural networks (ANN) and the logit models in predicting financial distress. The ratios in the following categories are applied for generating predictions: current ratio (CR), return on assets (ROA), debt to asset ratio (DAR), total asset turnover (TATO), and cash flow to debt ratio.

The study's findings demonstrated that the Logit model beat the ANN model, with 98% accuracy, 94.20 sensitivity, and 99.30% specificity compared to the logit model's 82.50%, 84%, and 82%, respectively. It is expected that the high accuracy of this prediction model can be used to help interested parties predict the possibility of bankruptcy in the industrial sector in Indonesia. The Companies, Investors and regulators can prevent bankruptcy by knowing the best prediction method, which has an enormous impact on the Indonesian economy, and that model is Logit.

Keywords: ANN, financial distress; logit; prediction accuracy.