ABSTRACT

The economic condition of a country is one of the important things in the country's progress. The good or bad condition of the state will have an impact on the welfare and progress of its people. Banking companies in Indonesia can be seen from the financial condition based on the value and credit growth. Credit growth that occurs in banks in Indonesia is not always stable and has experienced a decline that occurred from 2019 to 2021. In addition, several banking companies listed on the Indonesia Stock Exchange (IDX) obtained negative Earnings Per Share (EPS) values which could indicate that the related company experienced a decline in the company's financial performance. Financial distress is a condition experienced by companies that can be at risk of bankruptcy. Therefore, banking companies need financial distress prediction analysis to assist companies in making decisions so as not to go bankrupt and find out how far the company's financial performance is as an early prevention effort.

The prediction of financial distress in this study uses the data mining method on the Artificial Neural Network (ANN) model. Artificial Neural Networks have been carried out by many previous researchers and have the best accuracy results among all other prediction models in predicting financial distress and bankruptcy. The input variables used in this study are financial ratios, namely the current ratio, return on assets, debt to asset ratio, and total asset turnover.

The purpose of this study was to determine the condition of the financial performance of banking companies, find out the results of calculations from several financial ratios used as data testing, find out how the comparisons between the four financial ratios experiencing financial distress and not experiencing financial distress as data training, understand the architecture of artificial neural models. network generated from testing the training data for later use in data testing, as well as knowing the results of predicting financial distress in banking companies using an artificial neural network model. The sample used in this research is thirty-eight banking companies listed on the Indonesia Stock Exchange in 2017-2021.

The results of this study indicate that the four ratios are suitable for use as input parameters because they provide significant differences between companies declared distress and non-distress. The ANN architecture used in the prediction process of this research is with 20 neurons as the input layer, 5 neurons as the hidden layer, and 1 neuron as the output layer with the best accuracy result of 87%.

Keywords: *Financial Distress*, *Artificial Neural Network*, *Financial Ratios*