

ABSTRACT

Most retail investors on the Indonesian stock exchange struggle to perform accurate stock analysis, often leading them to purchase stocks without thorough consideration and risking losses. Their inability to use financial ratios to analyze stocks and technical analysis to determine entry points is a primary cause. Given these challenges, retail investors need tools that can assist them in better stock analysis.

This tool is designed using a neural network method for stock analysis. Neural networks mimic the human brain's functioning by taking financial ratio data as input and producing fair value stock predictions as output. This method was chosen because it effectively handles non-linear relationships, offers high prediction accuracy, and efficiently processes large volumes of data. The design process begins with collecting financial ratio data and historical stock prices, data processing, website and neural network model design, and ends with verification and validation of the tools.

The result is a website tool that provides stock analysis features, including input for financial and technical ratios, IDX30 stock list, fair value stock predictions, and stop loss and take profit settings. Verification using black-box testing methods shows that all features function well and normally. In validation, retail investors provided feedback that the tool helps them perform stock analysis more effectively.

The use of neural network-based tools assists retail investors in analyzing stocks more accurately and determining optimal entry points. This tool also facilitates the design of stop loss and take profit strategies, helping to minimize risk and enhance profit potential.

Keywords [Website, Retail Investor, Neural Network]