ABSTRACT

PURPOSE *of this thesis is to build an Artificial Neural Networks (ANN) model which feeds on inputs from popular trading signals to predict trading signals. This model is expected to be useful for active intra-day traders in deciding what position to take. The result of the model will be compared to two benchmarks, a naïve buy-and-hold strategy and a maximum profit acvhievable by winning all the trades.*

METHOD *used in this study is the Multi Layer Perceptron of ANN, using backpropagation methods with one hidden layer. The data used to build the model is the high frequency data of intra-day stocks from each of the industry sectors in the Indonesia Stock Exchange market. The technical indicators used as the inputs are the Price Channel Indicator, the Adaptive Moving Averages, the Relative Strength Index, the Stochastic Oscillator, the Moving Average Convergence-Divergence, the Moving Averages Crossovers and the Commodity Channel Index.*

RESULTS *showed that the model does perform better than the naïve strategy and giving a return which is higher than the composite Jakarta Stock Exchange index. However, there is room for improvements such as additional parameter to check the position of the portfolio, standard deviation control to manage the risk of the portfolio, and feeding of rich media contents such as news to improve the prediction result.*

CONCLUSION *can be drawn that the ANN is a useful logarithm to generate a trading signal predictor, and the use of high frequency data is more relevant for intra-day traders.*

Keywords: artificial neural network, ANN model, machine learning, high frequency data, trading signals, technical indicators, Indonesia Stock Exchange, IDX