

CHAPTER 5

CONCLUSION

5.1 Conclusion

From the experiment result, it can be concluded that the artificial neural network is indeed a promising platform to develop forecasting tools to generate a trading signals for intraday trading. The model developed in this study performs better than the naïve Buy-and-Hold strategy, and in some occasion is actually better than the average composite Jakarta Stock Exchange index.

This study provides support for Kosala and Kumaradjaja (2008) proposal that use of richer data, such as the use of high frequency intra-day trading data which consist of OHLC prices, does provide better result in financial forecast applications.

Technical indicator can be used to build a predictor of trading signal for intraday trading behavior. However, more strict rules such as trading limits, long or short position parameter, risk appetite indicator, need to be studied further and incorporated into the model before it can be practicable to actual trading.

5.2 Suggestion for Further Study

There is still a wide gap of research subjects and methodology for the Indonesia Stock Index. Studies such as use of the high frequency intra-day data, application of neural network or other machine learning techniques can surely bring benefits of new perspectives. This study is built by taking a generalization on the IDX, to incorporate as much of stock data as possible to the experiment.

Further studies may be in form of application of the methodology to a more specific stock, with the effort of simulating a bid and offer spread and implementing the transaction cost. Another possible study which will also be interesting by focusing on a specific stock is the use of actual numbers as input feeds to the ANN, for the hidden layers to apply a smoother function to generate the outputs.

Variation in the result of ANN in this study which caused by the carried long position of the trades can also hint for a study in which the position of the portfolio is also feed into the system. One can add a parameter to indicate whether it is carrying a long or short trades, how long can the agent hold a position, and must square the position before the testing period ends. Also, risk indicators such as standard deviation of the position, how much of profit or loss can the agent hold before it must square off the position, can also be used to enrich the inputs.

Finally, there is also interesting concept of adding more rich data and information, i.e. by means of feeding relevant news, twitter feeds, RSS feeds, adding graphics or other multimedia content into the ANN system. An effort by Kosala and Kurniady (2010) to include news into a machine learning scheme has shown a promising proof that the additional content helps the model to gain better performance, although the result has not been consistent.