



Sutte Indicator: A Technical Indicator in Stock Market

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ABSTRACT

This study aims at development of the technical indicator in Stock Market as Sutte indicator. Sutte indicator in stock trading that will assist in the investment decision-making process which is to buy or sell stocks. This study took data from PT. Astra Agro Lestari Tbk. Which is listed in the Indonesia stock exchange in the period of 5 April 2001 - 20 September 2016. To find out the performance of Sutte indicator, two other technical analysis are used as a comparison, they are simple moving average (SMA) and moving average convergence/divergence (MACD). The mean of square error (MSE), mean absolute deviation (MAD), and mean absolute percentage error (MAPE) are used to find out a comparison of the level of reliability in predicting the stock data. The results of this study are Sutte indicator could be used as a reference in predicting stock movements. Sutte indicator have a better level of reliability compared to two other indicators method SMA and MACD based on the MSE, MAD and MAPE.

Keywords: Stock Market, Sutte Indicator, Technical Analysis

JEL Classifications: C58 D53

1. INTRODUCTION

Stock trading is an economic activity that requires high accuracy. If an investor is lack of understanding on stock market, certainly, she/he will experience significant losses and might become insolvent. In stock trading, the investors are required to know the movement direction of the stock price and market conditions. Both of these are very important in order to get maximum profit and minimum risky. Usually, an investor uses technical indicators to detect stock movement. A technical indicator is an analysis of previous price movements to predict the upcoming price movements. Technical indicators are related to the stock movement chart. The main component of the formation on stock movement chart consists of 5 components; they are opening price, the highest price, the lowest price, the closing price, and the volume of transactions. An indicator in technical analysis consists of two categories, that is lagging and leading indicators. Lagging indicators are commonly used for measuring trends and leading indicators are generally used for overbought or oversold. Several types of technical indicators are the Stochastic, MACD and Bollinger bands (Nithya and Thamizhchelvan, 2014), moving average (Han et al., 2013), and relative strength index (Abbey and Doukas, 2012).

Nowadays, there are many traders who are experts mastering the technical analysis and even have been able to modify the technical indicators. Technical analysis is directed to predict the safety of the price. The price at which buyers and sellers set a collective agreement which is regarded as a matter of right, weighty and reveals all the factors, rational and irrational, quantitative and non-quantitative, and the only picture that should be considered (Suresh, 2013). Furthermore, Neely and Weller (2011) revealed that technical analysis is the use of past price movements and/or other market data, such as volume, to assist the decision making process on trade in asset markets. This decision is usually obtained by applying a few simple rules on share price history.

Many researchers have examined the technical analysis. Pring (1991) showed that technical analysis aims at identifying trend reversals in the early stages and rising trend until the confidence level indicates that the trend has reversed. Taylor and Allen (1992) showed the value of technical analysis for leaders of foreign currency dealers. Murphy (1999) studied about market action through the use of charts for the purpose of forecasting upcoming price. Mengoli (2004) showed that the trading approach comprises valuable momentum for the Italian stock

prediction accuracy rate in predicting, the Sutte indicators can be used as a reference.

In addition, Sutte indicator also has three types of predictive, namely SUTTE%L, SUTTE%H, and SUTTE-PRED. These three indicators are supporting each other to provide a picture of the movement of stocks. In giving the movement image of stocks, SUTTE link between SUTTE%L and SUTTE%H. If the curve SUTTE%L is above the curve SUTTE%H in a long period of time then it indicates that the stock price will increase and vice versa if the curve SUTTE%H is above SUTTE%L curve then the stock price will decline. Increases and decreases in stock prices is usually marked by the intersection of the curve SUTTE%L and SUTTE%H.

Figure 2a showed that SUTTE%H and SUTTE%L intersect in (1) and SUTTE%H is above the curve SUTTE%L, it indicates that the stock price will decline. From this indication, investors may take a decision to sell its stocks in order to avoid huge losses. Similarly, Figure 2b showed that SUTTE%H and SUTTE%L intersect at (2) and SUTTE%L is above the curve SUTTE%H, it indicates that the stock price will increase. From this indication also, investor can take a decision to buy stock.

5. CONCLUSION

Based on the discussion and analysis in the previous section, it can be concluded that Sutte indicator is preferable to predict stock movements. When compared with other indicators method (SMA and MACD) from MSE, MAD and MAPE, Sutte indicator have a better level of reliability.

REFERENCES

Abbey, B. S., & Doukas, J. A. (2012). Is Technical Analysis Profitable for Individual Currency Traders. *Journal of Portfolio Management*, 1(910), 142-150.

Gencay, R., Stengos, T. (1998), Moving average rules, volume and the predictability of security returns with feedforward networks. *Journal of Forecasting*, 17, 401-414.

Han, Y., Yang, K., & Zhou, G. (2013). A New Anomaly: The Cross-Sectional Profitability of Technical Analysis. *Journal of Financial and Quantitative Analysis*, 48(5), 1433-1461.

Lai, H.W., Chen, C.W., Huang, C.H. (2010), Technical analysis, investment psychology, and liquidity provision: Evidence from the Taiwan stock market. *Emerging Markets Finance and Trade*, 46, 18-38.

Lento, C. (2007), Tests of technical trading rules in the Asian-Pacific equity markets: A bootstrap approach. *Academy of Accounting and Financial Studies Journal*, 11, 51-73.

Li, W., Wang, S. (2007), Ownership restriction, information diffusion speed, and the performance of technical trading rules in Chinese domestic and foreign shares markets. *Review of Pacific Basin Financial Markets and Policies*, 10, 585-617.

Loh, E. (2007), An alternative test for weak form efficiency based on technical analysis. *Applied Financial Economics*, 17, 1003-1012.

McKenzie, M. (2007), Technical trading rules in emerging markets the 1997 Asian currency crisis. *Emerging Markets Finance and Trade*, 43, 46-73.

Mengoli, S. (2004), On the source of contrarian and momentum strategies in the Italian equity market. *International Review of Financial Analysis*, 13, 301-331.

Metghalchi, M., Chang, Y., Garza-Gomez, X. (2012), Technical analysis of the Taiwanese stock market. *International Journal of Economics and Finance*, 4, 90-102.

Minitab. What are MAPE, MAD, and MSD?; 2016. Available from: <http://www.support.minitab.com/en-us/minitab/17/topic-library/modeling-statistics/time-series/time-series-models/what-are-mape-mad-and-msd>.

Murphy, J. (1999), *Technical Analysis of the Financial Markets*. New York, NY: New York Institute of Finance.

Neely, C. J., & Weller, P. A. (2011). *Technical Analysis in the Foreign Exchange Market* (No. 2011-001B). St. Louis. Available from: <http://research.stlouisfed.org/wp/2011/2011-001.pdf>.

Nithya, J., & Thamizchelvan, G. (2014). Effectiveness of Technical Analysis in Banking Sector of Equity Market. *IOSR Journal of Business and Management (IOSR-JBM)*, 16(7), 20-28. Available from: <http://www.iosrjournals.org/iosr-jbm/papers/Vol16-issue7/Version-5/C016752028.pdf>.

Panyagometh, K., Soonsap, P. (2012), MACD based dollar cost averaging strategy: Lessons from long term equity funds in Thailand. *Economics and Finance Review*, 2, 77-84.

Pring, M.J. (1991), *Technical Analysis Explained*. New York, NY: McGraw-Hill.

Suresh, A. S. (2013). A study on fundamental and technical analysis. *International Journal of Marketing, Financial Services & Management Research*, 2(5), 44-59.

Taylor, M., Allen, H. (1992), The use of technical analysis in the foreign exchange market. *Journal of International Money and Finance*, 11, 304-314.

Vasilioni, D., Eriotis, N., Papathanasiou, S. (2006), How rewarding is technical analysis? Evidence from Athens. *Stock exchange. Operational Research*, 6, 85-102.

Zhou, Y., Zhou, G. (2009), Technical analysis: An asset allocation perspective on the use of moving averages. *Journal of Financial Economics*, 92, 519-544.