

## CHAPTER 4

### SUMMARY AND CONCLUSION

In this study, the main objective is to examine the economic viability and applicability of various technical methods, which are commonly used in the securities trading. The past and current discussions about the technical analysis available in published literature were surveyed. Then, tests were performed to find the portfolio returns by using various technical trading methods with different trading signals.

After obtaining portfolio returns for each technical method, ANOVA and chi-square tests were carried out to find the significant difference in portfolio returns based on the technical indicators. From this study, there was no sufficient evidence to prove that all technical indicators outperformed the return from buy-and-hold strategy.

From the global basis, the maximum portfolio return from each indicator was selected to represent that particular trading method under ANOVA. From this analysis, there is a significant difference in portfolio returns obtained by applying SMA and MACD compared to buy-and-hold return. However, the other two indicators, RSI and STOC did not show any significant difference when compared to return from buy-and-hold strategy.

In addition, there is a significant difference in return for SMA and MACD based on different trading signals. The 9-SMA, the shortest average value for securities price

showed lowest return compared with the other trading signals which are based on longer periods such as 21-SMA, 60-SMA and 200-SMA. The results are similar to MACD where 9-MACD produced the lowest return compared with 12-MACD and 26-MACD.

One of the conclusions is that trading signal based on shorter average price series, may too sensitive to slight price changes and giving false trend directions. When more prices were added, the average value of price series managed to minimize the effect of slight price reversals, and only reacted to the price changes after the price reversal had stayed for a substantial period of time.

In addition, the trading signal based on shorter average price series generated more frequent transaction opportunities. This definitely incurred substantially higher transaction cost compared with the trading signal based on longer average price series.

For the other two trading methods, which are based on price velocity, RSI and STOC, there were no evidence to prove that the returns from different trading signals generated significant difference in return.

From this study, we can conclude that different trading indicators generate different level of portfolio returns, but not necessarily better than return from buy-and-hold strategy. In addition, the selection of different trading signals under each trading indicator produces different levels of return.

The findings also suggest that investment decision should not solely be based on the trading signals generated by technical indicators. Investors should seriously consider the viability of the indicators of their ability to generate profitable investment decision. In addition to the trading signals generated by technical indicators, investor should take into consideration the other fundamental factors that may influence the movement of share prices.

It is to be noted that this study contained some practical limitations. Firstly, this study assumes that the closing prices are always available for transaction. This may not be the case in actual trading environment where bid and ask prices always differ from the last trading price.

Secondly, the returns obtained from each trading signal were based on equal weighted method, where each counter has equal influence in the portfolio. In the actual investment environment, most of the investment portfolio returns are based on value weighted method.

Thirdly, this study only consists of the trading methods that have specific trading rules based on certain quantifiable parameters. Other commonly used technical tools, such as chart formation, Elliot Waves and trend line, which require subjective judgement were not included.