
THE STUDY ON THE IMPACT OF KLSE MARKET INDEX TOWARDS THE STOCK PRICE PERFORMANCE AMONG THE LEADING TECHNOLOGY COMPANIES

Yeoh Wee Win

School of Business, INTI International College Penang, Malaysia

E-mail addresses: meekyeoh@yahoo.com

*Corresponding author: meekyeoh@yahoo.com

Abstract : This study targets the development through the motivation of the research to explore the impact of the KLSE market index from Malaysia in the influence towards the stock price performance among the leading technology companies globally. The lack of the study on the similar scope of study had been triggering the need for the exploration for this study to investigate the potential significant in the relationship between the KLSE market index and the stock price performance for the leading technology companies. The previous study had been suggesting there should be significant positive correlation and relationship between the market indices against the performance of the technology stock prices developing the initial hypothesis for the study. However, the quantitative study on the 10 years timeline for the study pattern for the KLSE market and the technology stock price performance had revealed that the empirical evidence had pointed the opposite result where the significant negative correlation and relation was found based on the historical data through the quantitative analysis using the correlation analysis and regression analysis leading to the rejection of the initial hypothesis as drawn. This had been providing fresh insight for the contribution of study expanding the opportunities for the future study of similar area of expertise.

Keywords: KLSE market index; stock price; technology companies; Malaysia.

INTRODUCTION

This study sought to investigate the pattern of the global market index, encompassing key market indexes such as the US, China, and Hong Kong, which have a considerable influence on investors and traders in the investment market. The market index is a hypothetical portfolio of investment assets for stock securities that reflect a portion of the financial market (Young, 2021). The market index is calculated by subtracting the index value from the underlying stock price of the portfolio holdings. The weightage will be used for measurement to ensure that the individual impact on the market index is adjusted, since each individual stock will contribute distinct attributes and pricing to the market index computation (Anwaar, 2016).

The technology industry has grown significantly in recent years, with corporations extending their operations in response to increased demand for technological products and software. This demonstrated how crucial the technology industry is having on the company's performance. The recent Covid-19 pandemic has also helped most investors recognize how powerful the potential of technology businesses can grow in areas where the pandemic has created additional commercial chances for the company (Bian, Wang and Zhou, 2020). Major technology corporations such as Microsoft, Alphabet, and Facebook are capitalizing on the situation to increase revenue. This caused investors to focus more on investing in tech businesses with limitless potential, and the growth of technology has been hopeful about the future of the business, guiding the intention to invest in the big players in the tech industry. This prompted additional research to better understand the prospects for increasing the company's value and return on investment, resulting in the research study for this topic.

The market index is expected to fluctuate over time, influenced by a variety of factors such as economic conditions, interest rates, political issues, and so on. The recent Covid-19 pandemic, which prevented the majority of business sectors from operating, had a severe impact on the market index (Ismail et al., 2020). The market index measurement will assist the market in understanding current company performance as well as projected economic growth. The rising market index will instill more confidence in the company's performance, and investors will expect a higher return on their stock investment (Pilinkus, 2010).

In this research study, the problem statement was highlighted in order to comprehend the pattern of the worldwide market index affecting share price for the large tech businesses. The technology industry has been quickly developing in recent years, particularly with the advent of technology and the industry 4.0 emerging in the business world. Technology businesses are expecting significant growth in the future business market (Little, 2021). This will also help to investor optimism as the focus shifts to investing in the stock of those companies. This will provide extra insight into the behavior of the share price as well as anticipating the prospective movement of the share price for technology businesses. With this in mind, it is critical to comprehend the potential impact and influence on the stock price of technology businesses based on the market index.

MATERIALS AND METHODS

The quantitative analytic approach will be used in the research design, and numerical data will be used as part of the measurement for this research project. The data analysis will be derived from financial data collected on stock prices and market indexes in order to identify the significant through data analysis utilizing the quantitative method (Apuke, 2017). The advantage of the quantitative method is that the research will be able to provide more objective and definite findings through the empirical result generated by the statistical output, and quantitative analysis has extended the ability to test large sets of data in a short period of time, reflecting the efficiency in conducting data analysis for the research (Sekaran and Bougie, 2016). This study will also employ the deductive reasoning

approach, as it will aid in drawing conclusions about the suggested hypothesis in this study based on logical reasoning with reference to the empirical evidence supplied in the results (Sharela, 2016). The research will use convenience sampling to collect data for 15 companies, which will be compared to the Kuala Lumpur Stock Exchange (KLSE) for Malaysia. The timeline of study for this research will refer to a historical period of 10 years of data, using data extracted monthly from the secondary data market. The SPSS software will next be utilized to construct the relevant data analysis for this research in order to identify the significant in research, as well as to test the hypothesis for this research and reach a conclusion for the research findings. The quantitative analysis will observe the application of the reliability analysis, correlation analysis as well as regression analysis to generate the empirical evidence to conclude the findings for the study (Sekaran and Bougie, 2016).

Data Analysis

Table 1: Reliability Test for Technology Companies

Reliability Statistics	
Cronbach's	
Alpha	N of Items
.954	15

Based on the reliability test results, Table 4.10 showed that the Cronbach's Alpha for the independent variables, which included the market index from the tech businesses chosen for this research, was 95.4%, which is higher than the acceptable standard of 70%. As a result, the reliability test validated the quality and consistency of the data set for the independent variable, allowing this research project to proceed with the next steps of data analysis.

Table 2. Correlation Analysis Between Technology Stocks and KLSE Market Index

Correlations		
		KLSE
KLSE	Pearson Correlation	
		Tech
Tech	Pearson Correlation	

The correlation analysis implies the study on the correlation between two variables whether it is positive or negative correlated where the Pearson Correlation Coefficient will be reflecting the strength of the correlation presence between the two variables. For the current study, the correlation analysis is used to explore the presence of the correlation between the leading technology stock prices against the KLSE market index of Malaysian stock market. Despite the strong suggestion on the positive correlation from the previous research papers, the result in Table 2 had indicate that there is presence of negative correlation between the two variables recording the Pearson Correlation Coefficient at -0.224. With reference to the Pearson Correlation Coefficient of -0.224, there is a weak strength of negative correlation presence which indicate that there is a small opposite movement for the leading technology stock prices against the KLSE market index.

Table 3.Regression Analysis

		Coefficients				
		Unstandardized Coefficients		Standardized		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	397.860	108.179		3.678	.000
	KLSE	-.161	.064	-.224	-2.495	.014

a. Dependent Variable: Tech

The regression analysis is used to study on the presence of the significant in the relationship within the independent variable against the dependent variable. For the current study, the KLSE market index had been representing the independent variable which will be tested against the performance of the major technology companies' stock as the dependent variable based on the framework of study. Based on the result in Table 3, the regression analysis showed the achievement of the p-value of 0.014 which is below the 5% tolerance level for the regression test which indicate the presence of the relationship between the KLSE market index against the leading stock price movement in the study.

Based on the observation for the result in the regression analysis and the correlation analysis, it is concluded from the research findings that the empirical evidence had pointed out the evidence suggesting the presence of the negative relationship between the KLSE market index against the stock performance of the leading technology companies which lead acceptance of the null hypothesis at H0 and rejecting the alternate hypothesis at H1.

H0: There is no significant positive impact from the KLSE market index towards the movement of the stock performance of the leading technology companies.

H1: There is significant positive impact from the KLSE market index towards the movement of the stock performance of the leading technology companies.

RESULTS AND DISCUSSION

Rahman, Yahya, and Nasir (2010) previously reported that the KSLE market index has demonstrated substantial influence beyond the Malaysian market, with the increase of the KLSE market index likely to follow the same trend as stock pricing from other stock exchange markets. Boyacioglu and Avci (2010) were in the same alignment where the KLSE market index is demonstrated to be significant to share the same movement with the Istanbul Stock Exchange market index. The empirical evidence for this research study was consistent with the prior literature evaluation, which validated the significant association between the MY market index and the share price of a large IT business. According to the research findings, the Malaysia stock market, which falls under the developing country category, is expected to have a positive correlation because major tech companies are thought to be able to exert significant influence on the smaller stock exchange companies to perform in sync with the major companies due to the presence of a dependent and interdependent relationship between these companies and the stock market. As a result, the MY stock exchange market is discovered to have a considerable impact on the share price of the large IT businesses in this research study.

Rahman, Yahya, and Nasir (2010) previously reported that the KSLE market index has demonstrated substantial influence beyond the Malaysian market, with the increase of the KLSE market index likely to follow the same trend as stock pricing from other stock exchange markets. Boyacioglu and Avci (2010) were in the same alignment where the KLSE market index is demonstrated to be significant to share the same movement with the Istanbul Stock Exchange market index. The empirical evidence for this research study was consistent with the prior literature evaluation, which validated the significant association between the KLSE market index and the share price of a large IT business. According to the research findings, the Malaysia stock market, which falls under the developing country category, is expected to have a positive correlation because major tech companies are thought to be able to exert significant influence on the smaller stock exchange companies to perform in sync with the major companies due to the presence of a dependent and interdependent relationship between these companies and the stock market. As a result, the KLSE stock exchange market is discovered to have a considerable impact on the share price of the large IT businesses in this research study.

Future Research Direction And Limitation Of Study

Throughout the research procedure, some limits were observed, and these constraints produced some obstacles in the significance of the study. To begin, the research timeframe was relatively short in order to fit with the university's academic requirements, where a lack of time resulted in a lack of in-depth analysis of the research subject. This is likely to have an impact on the study's research findings.

Furthermore, the research exclusively focuses on the sample size for the biggest tech businesses in the field, which are primarily based in US multinational corporations. These will not provide comprehensive research, but the research study will not be able to undertake comprehensive research for all of the world's tech businesses to validate the significance of the relationship. As a result, this research will present another prospective topic of study for future studies.

Based on the limits, the research study will present future prospects for development through the recommendations developed during the research process. To begin, the research should provide a larger sample size for the study, where the research can include a wider sample size, including sample tech companies from other regions, in order to comprehend the greater picture of the significant in this research scope.

Furthermore, the research study was limited to understanding tech firms, which is only one of the important industries in the business world. As a result, the advice would be for the research to expand the comparable study to investigate other industries in order to uncover the relevant relationship between the major market indexes. This will aid in determining whether the same trend and link will be observed with the tech companies.

CONCLUSION

Rahman, Yahya, and Nasir have previously reported that the KSLE market index has a significant impact outside the Malaysian market, and increases in the KLSE market index tend to follow the same trend as stock prices in other stock markets. Boyacioglu and Avci are on the same trajectory as it proves important that the KLSE market index has the same movement as the Istanbul Stock Exchange market index. Empirical evidence from this research study is consistent with previous literature assessments and validates the significant relationship between the MY market index and stock prices of large IT firms.

REFERENCES

- Ali, I., Rehman, K.U., Yilmaz, A.K., Khan, M.A. & Afzal, H. (2010). 'Causal relationship between macro-economic indicators and stock exchange prices in Pakistan', *African Journal of Business Management*, 4(3), pp. 312-319.
- Anwaar, M. (2016). 'Impact of Firms Performance on Stock Returns (Evidence from Listed Companies of FTSE-100 Index London, UK)', *Global Journal of Management and Business*, 16(1).
- Apuke, O.D. (2017). 'Quantitative Research Methods A Synopsis Approach', *Arabian Journal of Business and Management Review (Kuwait Chapter)*, 6(10).
- Bernal-Conesa, J.A., Briones-Peñalver, A.J. & Nieves-Nieto, C.D. (2016). 'The integration of CSR management systems and their influence on the performance of technology companies', *European Journal of Management and Business Economics*, 25(3), pp. 121-132.
- Bernal-Conesa, J.A., Nieto, C.N. & Briones-Peñalver, A.J. (2017). 'CSR Strategy in Technology Companies: Its Influence on Performance, Competitiveness and Sustainability', *Corporate Social Responsibility and Environmental Management*, 24(2), pp. 96-107.
- Bian, T.Y., Wang, T. & Zhou, Z. (2020). 'Measuring investors' risk aversion in China's stock market', *Finance Research Letters*.
- Blasco, N., Corredor, P. & Ferreruela, S. (2012). 'Does herding affect volatility? Implications for the Spanish stock market', *Quantitative Finance*, 12(2), pp. 311-327.
- Boyacioglu, M.A. & Avci, D. (2010). 'An Adaptive Network-Based Fuzzy Inference System (ANFIS) for the prediction of stock market return: The case of the Istanbul Stock Exchange', *Expert Systems with Applications*, 37(12), pp. 7908-7912.
- Brooks, C., Rew, A.G. & Ritson, S. (2001). 'A trading strategy based on the lead-lag relationship between the spot index and futures contract for the FTSE 100', *International Journal of Forecasting*, 17(1), pp. 31-44.
- Broto, C. & Lamas, M. (2016). 'Measuring market liquidity in US fixed income markets: A new synthetic indicator', *The Spanish Review of Financial Economics*, 14(1), pp. 15-22.
- Chen, H., Chong, T.T.L. & Duan, X. (2010). 'A principal-component approach to measuring investor sentiment', *Quantitative Finance*, 10(4), pp. 339-347.
- Cooper, D. & Schindler, P. (2014). *Business Research Methods*, 12th edn, McGraw-Hill/Irwin. Boston.
- Dichtl, H. & Drobetz, W. (2014). 'Are stock markets really so inefficient? The case of the "Halloween Indicator"', *Finance Research Letters*, 11(2), pp. 112-121.
- Farmer, R.E.A. (2012). 'The stock market crash of 2008 caused the Great Recession: Theory and evidence', *Journal of Economic Dynamics and Control*, 36(5), pp. 693-707.
- Friesl, M. (2012). 'Knowledge Acquisition Strategies and Company Performance in Young High Technology Companies', *British Journal of Management*, 23(3), pp. 325-343.
- Hau, L.C. (2011). 'Stock Market and Consumption: Evidence from China', *Berkeley Undergraduate Journal*, 24(3), pp. 35-49.
- Ikoku, A.E. (2010). 'Is the stock market a leading indicator of economic activity in Nigeria?', *Journal of Applied Statistics*, 1(1), pp. 17-38.
- Ismail, M.S., Noorani, M.S.M., Ismail, M., Razak, F.A. & Alias, M.A. (2020). 'Predicting next day direction of stock price movement using machine learning methods with persistent homology: Evidence from Kuala Lumpur Stock Exchange', *Applied Soft Computing*, 93.
- Johnman, M., Vanstone, B.J. & Gepp, A. (2018). 'Predicting FTSE 100 returns and volatility using sentiment analysis', *Special Issue: Asset Pricing*, 58(1), pp. 253-274.

- Kara, Y., Boyacioglu, M.A. & Baykan, O.K. (2011). 'Predicting direction of stock price index movement using artificial neural networks and support vector machines: The sample of the Istanbul Stock Exchange', *Expert Systems with Applications*, 38(5), pp. 5311-5319.
- Lee, H., Cheng, F. & Chong, S. (2015). 'Markowitz Portfolio Theory and Capital Asset Pricing Model for Kuala Lumpur Stock Exchange: A Case Revisited', *International Journal of Economics and Financial Issues*, 6, pp. 59-65.
- M'ng, J.C.P. (2018). 'Dynamically Adjustable Moving Average (AMA) technical analysis indicator to forecast Asian Tigers' futures markets', *Physica A: Statistical Mechanics and its Applications*, 509, pp. 336-345.
- Orlitzky, M. (2013). 'Corporate Social Responsibility, Noise, and Stock Market Volatility', *Academy of Management Perspectives*, 27(3).
- Pan, L. (2012). 'Which Factors Explain Stock Returns on the Shanghai Stock Exchange Market?: A Panel Data Analysis of a Young Stock Market', *Social and Behavioural Science, Law*.
- Pilinkus, D. (2010). 'Macroeconomic Indicators and Their Impact on Stock Market Performance in the Short and Long Run: The Case of the Baltic States', *Technological and Economic Development of Economy*, 2, pp. 291-304.
- Rahman, A.A., Yahya, M.A. & Nasir, M.H.M. (2010). 'Islamic norms for stock screening: A comparison between the Kuala Lumpur Stock Exchange Islamic Index and the Dow Jones Islamic Market Index', *International Journal of Islamic and Middle Eastern Finance and Management*, 3(3), pp. 228-240.
- Sadorsky, P. (2012). 'Correlations and volatility spillovers between oil prices and the stock prices of clean energy and technology companies', *Energy Economics*, 34(1), pp. 248-255.
- Sekaran, U. & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach*, 7th edn, Wiley, New York.
- Sharela, B.F. (2016). 'Qualitative and Quantitative Case Study Research Method on Social Science: Accounting Perspective', *International Journal of Economics and Management Engineering*, 10(12), pp. 3849-3854.
- Shu, M. & Zhu, W. (2020). 'Detection of Chinese stock market bubbles with LPPLS confidence indicator', *Physica A: Statistical Mechanics and its Applications*, 557.
- Sornette, D., Demos, G., Zhang, Q., Cauwels, P., Filimonov, V. & Zhang, Q. (2015). 'Real-Time Prediction and Post-Mortem Analysis of the Shanghai 2015 Stock Market Bubble and Crash', *Swiss Finance Institute Research Paper No. 15-31*.
- Symitsi, E. & Chalvatzis, K.J. (2018). 'Return, volatility and shock spillovers of Bitcoin with energy and technology companies', *Economics Letters*, 170, pp. 127-130.
- Tao, L. & Song, F.M. (2010). 'Do small traders contribute to price discovery? Evidence from the Hong Kong Hang Seng Index markets', *The Journal of Future Markets*, 30(2), pp. 156-174.
- Wang, J., Fu, G. & Luo, C. (2013). 'Accounting Information and Stock Price Reaction of Listed Companies — Empirical Evidence from 60 Listed Companies in Shanghai Stock Exchange', *Journal of Business & Management*, 2(2), pp. 11-21.
- Wang, Y. & Choi, I. (2014). 'Market Index and Stock Price Direction Prediction using Machine Learning Techniques: An empirical study on the KOSPI and HSI', *Science Direct*.

