

UNIVERSITI TEKNOLOGI MARA

**FORECASTING ON KUALA LUMPUR COMPOSITE INDEX
(KLCI) STOCK RETURN**

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ABSTRACT

Financial Times Stock Exchange (FTSE) Bursa Malaysia Kuala Lumpur Composite Index (KLCI) is made up of over 30 large companies listed on the Bursa Malaysia Main Market. All FTSE Bursa Malaysia data is calculated and disseminated every 15 seconds in real time. It is believed that the volatility of the stock market has a negative impact on the real economy recovery. Moreover, the reason for doing this research is to identify and to describe the underlying structure and the phenomenon of the sequence of observations in the series. The information obtained, can determine the most suitable time series model to fit the data series from January 2002 until December 2018 and subsequently to use the model to generate forecast value. Thus, both models Generalized Autoregressive Conditional Heteroscedasticity (GARCH) and Autoregressive Integrated Moving Average (ARIMA) have been illustrated to provide the correct trend of volatility. It shows a lot of interest towards the stock market forecasting. The objectives of this research are to determine the overall trend of the KLCI stock return, to compare the performance of Generalized Autoregressive Conditional Heteroscedasticity (GARCH) and Autoregressive Integrated Moving Average (ARIMA) based on KLCI stock return. Furthermore, it forecasts the KLCI stock return based on the better model. Root Mean Square Error (RMSE) and Mean Absolute Percentage Error (MAPE) are used in this research to measure accuracy. As a conclusion, it can be concluded that the best model for forecasting the KLCI is GARCH (1,1).

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