Modeling the Best ARIMA Modeling Approach for Forecasting Market Indices in Colombo Stock Exchange, Sri Lanka

Madushani, M. L. P.[1], Erandi, M. W. A.[1], Madurangi, L. H. L. S.[1],
Sivaraj, L. B. M.[1], Weerasinghe, W. D. D.[1],
Jayasundara, D. D. M.[1] and Rathnayaka, R. M. K. T.[2]

Generally, the movements of the stock prices are highly volatile and make much more dynamics. As a result day by day the large number of companies has been listed on stock exchanges across the world. Under this scenario, examine a suitable model for forecasting stock prices is a biggest challenge in the modern world.

The propose of this study is to examine a suitable model for forecasting stock prices in the Colombo Stock Exchange (CSE), Sri Lanka. Since the data has a non-seasonal linear trend, an autoregressive integrated moving average model was used for modeling and forecasting. The empirical results suggested that ARIMA model is more accurate for forecasting ASPI index than other traditional regression methods.

Keywords: ARIMA, All Share Price Index, Augmented, Colombo Stock Exchange, Dickey Fuller

---

[1] Department of Statistics and Computer Science, Faculty of Science, University of Kelaniya, Sri Lanka
[2] Faculty of Applied Sciences, Sabaragamuwa University of Sri Lanka
(kapilar@appsc.sab.ac.lk)