Forecasting of Nifty 50 and Nifty Midcap 50 Stock Market Indices by using ARIMA Model[1]

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Abstract

Stock markets act as a catalyst for the economic growth of a country. The main purpose of the present study is to examine the market performance of two most risky indices of National Stock Exchange - Nifty50 and Nifty Midcap50 and accurately forecasting the future returns of the indices using ARIMA model. The study also made a comparative analysis of both the indices. The statistics exhibits that the data of both the series are heteroscedastic and non-stationary in nature. The findings reveal that ARIMA (5,1,5) and ARIMA (29,1,29) are the best fitted models for Nifty50 and Nifty Midcap50 indices respectively and projected the uptrends of both the indices during the short run i.e. from 1st June 2022 to 31st Dec 2022. Authors concluded that the forecasted returns of Nifty 50 nad Nifty Midcap 50 are accurate and can be usedby the investors to make appropriate decisions when to buy or sell the stocks.

I. Introduction

EQUITY MARKET market is an integral part of a country's economy which directly affects the country's economic growth (Challa, Malepati and Kolusu, 2020; Mallikarjuna and Rao, 2019). Since 2000, Indian stock market has gained significant growth due to technological advancement and introduction to online trading. However, due to highly volatile and dynamic nature it involved high risk (Challa, Malepati and Kolusu, 2020). Hence, it's very crucial to understand the stock market performance so that investors can make appropriate decisions to invest their hard-earned money and gain from rising stock prices. Although, the rationale behind prediction is

VI. Limitations of The Study

Nevertheless, the study suffers from fewer limitations. The study examined only the equity market and didn't take into consideration the sectoral indices of NSE Nifty. The present study is confined to only two highly risky market indices such as Nifty50 and Nifty Midcap50 while ignoring the other riskiest stocks. To have a more holistic study the analysis can include sectoral indices and guide the investors to identify the better stock market returns on their investment.

VII. Future Scope of The Study

In future the study can be extended to predict and compare the stock prices of sectoral indices. Furthermore, long term predictions with alternative forecasting models can also be used.

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