

Abstract

The objective of this research was to study the volatility of stock market in India. Returns and volatility of the stock market has been studied using the NIFTY 50, which is an index measuring the cumulative performance of top 50 companies. Eight years of data starting from 2016 to 2024 was used for the study. For forecasting volatility, GARCH(1,1) model was used and its performance was compared against implied volatility, assuming historical volatility (calculated using 30 market days returns) as the volatility of the index. The model was found to show strong correlation with the historical volatility.