

Statistical Model Comparison for the National Stock Exchange (NSE) Stock Price Prediction

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Abstract:

The stock market is one of the most versatile sectors in the financial system, and the stock market plays an important role in economic development. It is also a platform for trading various securities and derivatives without barriers. This paper focuses on the comparison of different types of time series models to predict the stock prices of five companies by using machine learning techniques.

Keywords: Stock Market, Stock Price Prediction, Time series Models, NSE.

1. Introduction

STOCK: A stock (Akhilesh Ganti, Mar 2019) also known as share or equity, is a kind of security that implies proportionate in the issuing organization. This qualifies the investor for that extent of the company's advantages and profit. Stocks are purchased and sold dominantly on stock trades, however there can be private deals also and the establishment of about each portfolio.

National Stock Change (NSE)

The National Stock Exchange is the leading stock exchange in our country. It was established in 1992 and is headquartered in Mumbai. The NSE offers trading in equities, derivatives, and debt securities. The NSE is known for its modern electronic performance, which allows for fast and most efficient trading. It also provides a wide range of trading products and services, including equity trading, index trading, currency trading, and commodities trading. Overall, the NSE plays an important role in the Indian economy and is a key player in the global financial markets.

Nifty-50: The Nifty is the flagship benchmark of the National Stock Exchange (NSE), which is a well-diversified index comprising the top 50 companies in terms of free-float market capitalization that are traded on the bourse. It is supposed to reflect the health of the listed universe of Indian companies, and hence the broader economy, in all market conditions. Officially called the Nifty50, the index is computed using the free float market capitalization method, which is essentially the count of shares in active circulation in the market at any given point in time. The Nifty, just like the BSE benchmark Sensex, is today used for benchmarking portfolios and returns of mutual fund schemes and launching index funds.

Objective

1. To compare different types of model and algorithms on the National Stock Exchange (NSE) data for five companies.