

A STUDY ON THE GROWTH AND TRENDS OF NIFTY 50 INDEX IN INDIA DURING LAST 5 YEARS (2020-2025)

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Abstract

This study examines the performance and growth of the NIFTY 50 index in India over the period 2020–2025. In the Indian financial system, stock market indexes are crucial for representing general market activity and economic circumstances. The performance of fifty large-cap firms from various economic sectors is represented by the National Stock Exchange's benchmark index, the NIFTY 50. The chosen time frame is noteworthy because it encompasses notable occurrences like the COVID-19 pandemic, the post-pandemic recovery phase, interest rate adjustments, and worldwide economic uncertainty that affected stock market movements. The National Stock Exchange, financial databases, public reports, and scholarly journals are some of the sources of secondary data used in this study. The study evaluates the growth of the NIFTY 50 through year-wise returns and trend behaviour during the study period. Techniques such as annual return analysis, Compound Annual Growth Rate (CAGR), moving averages, and trend analysis are used, and the results are presented with the help of line and bar charts for better understanding. The findings of the study indicate that the NIFTY 50 has shown strong recovery and growth after the pandemic despite short-term fluctuations. The study provides useful insights for investors, students, and researchers by improving the understanding of recent market trends, risk, and index performance in the Indian stock market.

Keywords: NIFTY 50, Stock Market Index, Growth Analysis, Indian Stock Market.

1. Introduction

1.1 Overview of the Indian Stock Market

Indian stock exchange is one of the most important contributors to the country's economic growth, as it channels the savings of the public into productive investments. The NIFTY 50, a stock index launched by the National Stock Exchange, is a measure of the performance of the top 50 large-cap stocks from various industries, ranging from banking to IT, energy, and pharmaceuticals. It is a free-float market capitalization index, and its

performance is a true reflection of the overall stock market. It is an effective tool for investors and researchers, and its importance is immense; however, most of the investors are not aware of the long-term growth, fluctuations, and the effect of economic events.

1.2 Need of the Study

This study is necessary because of the increased investor participation and market volatility in 2020-2025, caused by various factors such as the COVID-19 pandemic and changes in the global economy. This bridges the gap between theoretical knowledge and practical market behaviour.

1.3 Influence and Impact of Indian Stock Market

The market performance of the NIFTY 50 index is affected by various factors such as inflation, interest rates, government policies, corporate results, and movements in the overseas market. Events such as the COVID-19 pandemic, changes in the monetary policy of the government, and geopolitical issues have affected the market in the given period.

1.4 Statement of the Problem

The stock market is affected by many dynamic factors, and its performance is subject to fluctuations. It is necessary to study the evolution of the NIFTY 50 index from 2020 to 2025 in terms of growth, returns, and volatility.

1.5 Significance of the Study

This study is significant as it provides an easy understanding of the growth, trends, and volatility of the NIFTY 50 index during an evolving period. This research can be helpful to students, investors, and policymakers.

1.6 Objectives of the Study

- To Analyse growth performance of Nifty 50.
- To Study year-wise returns and trend of Nifty 50.

1.7 Scope of the Study

The study focuses on the NIFTY 50 index from 2020 to 2025 using secondary data and basic statistical techniques, offering a descriptive understanding of overall market behaviour.

2. Review of Literature

The existing literature on the performance of the NIFTY 50 stock exchange index has pointed out three significant aspects. These are macro-economic effects, volatility behaviour, and growth performance. In the context of macro-economic effects, studies by **Nidamaluri et al. (2024)** and **Daka & Mehta (2025)** pointed out that inflation, interest rates, exchange rates, crude oil prices, and institutional investments have significant effects on the performance of the stock exchange index. In the context of growth performance, **Rahman (2025)** and **Hussain & Atif (2019)** pointed out that the Indian stock exchange is becoming increasingly integrated with other international stock markets, where the effects of international stock exchange indices are significant. In the context of volatility behavior, **Vevek et al. (2022)** pointed out the volatility clustering effect of the NIFTY 50 stock exchange index, where the volatility behavior is consistent. **Mukherjee & Mandal (2024)** pointed out the negative relationship between the volatility behavior (India VIX) and the returns from the stock exchange. Moreover, **Kulal & Kumar (2020)** pointed out the effects of unexpected events, such as the COVID-19 pandemic, on abnormal returns from the stock exchange. **Patel and Shakya (2025)** observed that the NIFTY 50 stock exchange index, notwithstanding substantial declines during periods of economic turmoil, possesses considerable growth prospects. Furthermore, **Goel et al. (2022)** highlighted the influence of company-specific determinants, including earnings, on stock returns. **Goel et al. (2022)** pointed out the effects of company-specific factors, such as earnings, on stock returns.

Overall, while prior studies provide valuable insights into NIFTY 50 performance, they largely rely on advanced econometric techniques or focus on specific factors. There remains limited research integrating growth, trends, and volatility using simple statistical tools for the recent period (2020–2025), which forms the basis of the present study. However, the present study narrows its focus to analysing the growth performance and trend behaviour of the NIFTY 50 index using simple statistical techniques for the period 2020–2025.

3. Research Methodology

3.1 Research Design

The research design of the study is descriptive and analytical to examine the growth and trend behaviour of the NIFTY 50 stock exchange index from 2020 to 2025. The descriptive design of the research will help to understand the movement of the stock exchange index, and the analytical design will assist in interpreting the data using various statistical instruments. The research is purely based on secondary data, and the data will be collected from various sources such as the National Stock Exchange (NSE).

3.2 Sources of Data

The research relies solely on secondary data collected through various sources such as the official website of NSE, which provides data such as the opening and closing values of the NIFTY 50 index for financial years 2020-2021 to 2024-2025. Support for research is also derived from various journals, reports, and financial publications.

3.3 Period of the Study

The study includes a five-year time frame from 2020 to 2025, an era characterized by significant volatility because of the COVID-19 pandemic and its aftermath. The data analysis is carried out on a financial year basis (from April to March), making it relevant to India's financial reporting system.

3.4 Variables of the Study

The primary variable is the NIFTY 50 index, represented through annual opening and closing values. Derived variables include annual returns, CAGR, moving average, and which help analyse growth, trend behaviour.

3.5 Statistical Techniques Used for Analysis

Annual Return Analysis is used to measure performance over a year, while CAGR is used to measure performance over a longer period. Moving averages help in identifying the direction of the trend by smoothing out the fluctuations. Graphical tools such as line and bar charts support visual interpretation.

3.6 Method of Data Analysis

Data is analysed systematically through the above tools. Annual returns and CAGR help in understanding the growth, while moving averages help in understanding the trends. The results are presented in the form of tables and graphs for better understanding. This helps

4. Data analysis and Interpretation

4.1 Objective 1: Growth performance analysis of Nifty 50.

CAGR Calculation

$$CAGR = \left(\frac{\text{Final Value}}{\text{Beginning Value}} \right)^{\frac{1}{n}} - 1$$

Table 4.1 Growth Performance Analysis

Particulars	Value
Beginning Value	8584.10
Final Value	23519.35
Number of Years	5
CAGR	22%

Calculation:

$$CAGR = \left(\frac{23519.35}{8584.10} \right)^{\frac{1}{5}} - 1$$

$$CAGR = (2.739)^{0.2} - 1$$

$$CAGR = 0.22$$

$$\mathbf{CAGR = 22\%}$$

The data provided in the Table 4.1 shows the growth performance of the NIFTY 50 index for the period from 2020 to 2025. The index shows a sharp increase from 8584.10 to 23519.35. This shows a high level of growth for the index. The Compound Annual Growth Rate (CAGR) calculated from this data is 22%. This shows high growth for the index. This high growth can be attributed to the recovery of the Indian stock exchange from the COVID-19 pandemic. The recovery can be attributed to a number of factors, including the government's efforts, increased liquidity, and increased participation of investors. The overall growth of the index, therefore, shows a positive trend. The analysis, therefore, shows that the NIFTY 50 index had a high level of growth.

4.2 Objective 2: Year-wise Returns and Trend Analysis of NIFTY 50

$$\text{ANNUAL RETURN} = \frac{\text{CLOSING VALUE} - \text{OPENING VALUE}}{\text{OPENING VALUE}} \times 100$$

Table 4.2 Annual Return of NIFTY 50 Index

Financial Year	Opening Value	Closing Value	Annual Return (%)
2020-2021	8584.10	14690.70	71.13 %
2021-2022	14798.40	17464.75	18.01 %
2022-2023	17436.90	17359.75	-0.44 %
2023-2024	17427.95	22326.90	28.10 %
2024-2025	22455.00	23519.35	4.73 %

Source: Compiled from National Stock Exchange (NSE) Data

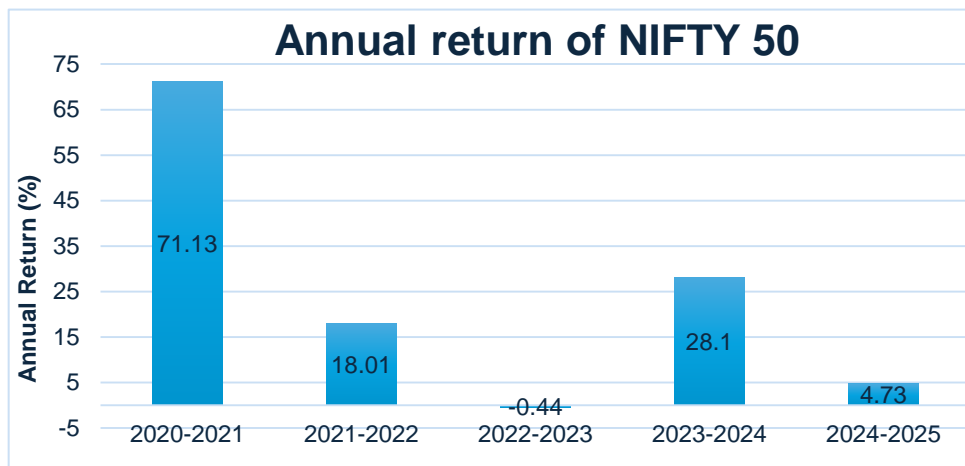


Fig 4.1 Annual Return of Nifty 50

Source: Compiled from National Stock Exchange (NSE) Data

From the Table 4.2 and Figure 4.1, it is clear that the Annual Return Analysis of the NIFTY 50 index for the period 2020-2025 has fluctuating performance. The index has registered the highest growth in 2020-2021, i.e., 71.13%, due to the recovery from the COVID-19 pandemic. It has registered steady growth in 2021-2022, i.e., 18.01%, followed by a fall in 2022-2023, i.e., -0.44%, due to global economic issues. It was followed by a strong rebound in 2023-2024, i.e., 28.10%, followed by moderate growth in 2024-2025, i.e., 4.73%, indicating stable market performance. It is clear from the above table and figure that the NIFTY 50 has registered fluctuating performance in terms of growth, and its growth has been consistently upward.

Table 4.3 Three-Year Moving Average of NIFTY 50 Index

Financial Year	Closing Value	3-Year Moving Average
2020–2021	14690.70	-
2021–2022	17464.75	-
2022–2023	17359.75	16505.07
2023–2024	22326.90	19050.47
2024–2025	23519.35	21068.67

Source: Compiled from National Stock Exchange (NSE) data

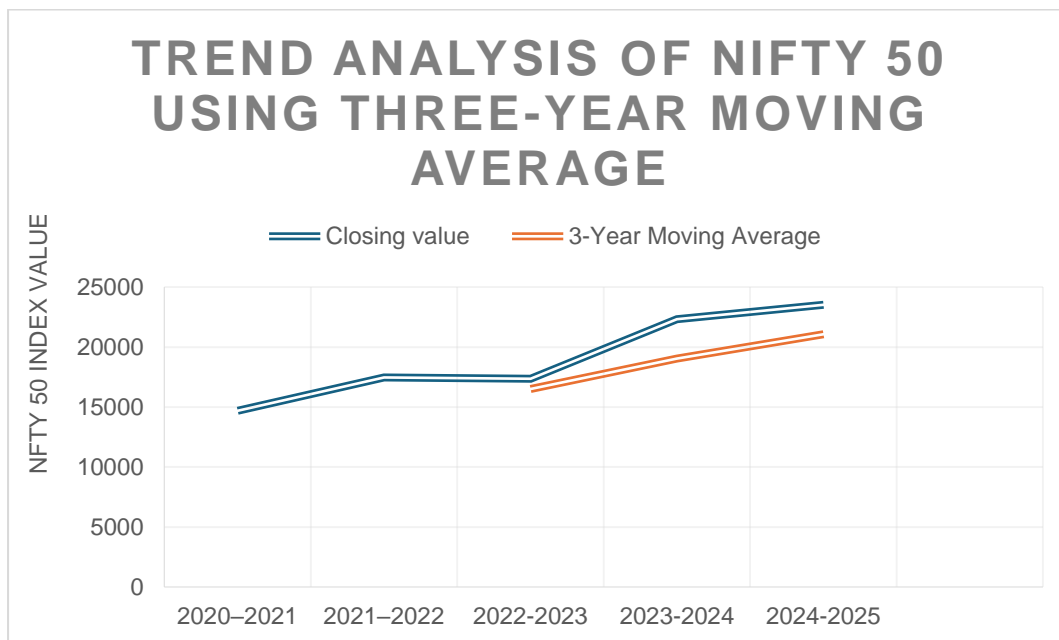


Figure 4.2 Trend Analysis of Nifty 50

Source: Compiled from NSE Data

From the Table 4.3 and Figure 4.2, it is observed that the Moving Average analysis of the NIFTY 50 index shows a consistent trend of growth in the market in the years 2020-2025. The first moving average calculated in 2022-2023 is 16505.07, which shows the initial phase of growth in the market based on previous years. The moving average increased to 19050.47 in 2023-2024 and then to 21068.67 in 2024-2025, indicating continuous improvement in the overall market trend. Though the actual values of the NIFTY 50 index showed some

fluctuations in some years, the moving average values showed continuous growth. From this analysis, it is confirmed that the NIFTY 50 index showed a consistent and growing trend in the market, indicating continuous growth in the Indian stock market.

5. Findings, Suggestions and Conclusion

5.1 Major Findings of the Study

The findings of the study revealed that the NIFTY 50 index had shown good growth and robustness during the period from 2020 to 2025. The index had shown a sharp increase from 8584.10 to 23519.35, indicating a robust growth pattern. The annual return analysis had also confirmed this result, showing fluctuations from 71.13% to -0.44%. This result is consistent with the findings of other studies, such as those of **Patel & Shakya (2025)**, who had confirmed a sharp recovery of the NIFTY 50 index during the crisis period. The moving average analysis of the NIFTY 50 index had also confirmed the robust growth pattern of the index. The studies of **Nidamaluri et al. (2024)** and **Daka & Mehta (2025)** had also confirmed that macroeconomic factors, including inflation and interest rates, had a significant impact on the NIFTY 50 index. The study by **Vevek et al. (2022)** had also confirmed the volatility clustering pattern of the NIFTY 50 index.

5.2 Suggestions and Recommendations

For Investors:

It is advisable for investors to have a long-term investment strategy, as the analysis indicates a steady growth pattern for the NIFTY 50 index despite the fluctuations. It is advisable for investors to diversify their investments in order to mitigate the risk of fluctuations and changes in the economy. It is advisable for investors not to panic in times of fluctuations and take informed decisions based on the trends.

For Policymakers:

Emphasis should be placed on ensuring that monetary and fiscal policies are stable to minimize uncertainty and increase investor confidence in the financial markets. There is also a need to promote financial literacy and awareness among investors so that they understand the behaviour of the stock market. A transparent and consistent regulatory environment is necessary to ensure stability and growth in the stock market.

Market players, such as institutional investors and financial analysts, should always keep an eye on macroeconomic indicators such as inflation, interest rates, and global economic indicators before making any investment decisions. Market players should also use efficient strategies to manage risks in case of high volatility and uncertainty. In addition, transparency and ease of access to financial information can also help in efficient decision-making.

5.3 Limitations of the Study

The research is based only on the NIFTY 50 index, without considering the performance of stocks. The research is based only on secondary data, not considering the period beyond five years (2020-2025). Moreover, it is not possible to conduct in-depth research using only basic statistical tools. Behavioural factors are not considered while performing the research.

5.4 Conclusion

Overall, the results reveal that the NIFTY 50 index showed a pattern of recovery, growth, and stabilization over the specified period. Although the index showed some volatility in the short term because of disruptions in the economy, the index showed a robust upward trend, which reflects the resilience and strengthening of the Indian stock market. The results further emphasize the significance of the NIFTY 50 as a dependable indicator of market performance and the long-term investment potential of the market. Hence, the study proves that the long-term growth and stability of the market are robust despite the volatility in the market.

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