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AN EMPIRICAL ANALYSIS OF INDIAN STOCK MARKET(NSE) PERFORMANCE AND INVESTOR BEHAVIOUR ACROSS PRE, DURING, AND POST-COVID PHASES (2020–2026)

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ABSTRACT

Between the years 2019 and 2026, the Indian stock market witnessed various structural transformations owing to factors such as economic shocks due to the outbreak of COVID-19, tariff wars, and other forms of political tensions. The current research aims to examine the performance of the Nifty 50 within the above-mentioned time period. Using secondary data, this paper adopts a simplistic approach in analyzing the Indian stock market, in addition to assessing the performance of major sectors within the economy and making relevant recommendations concerning future investments. In this regard, the use of basic metrics such as average returns, standard deviations, and annualization, among others, has enabled the researcher to focus on the trend in performance of the most profitable sectors, namely pharmaceuticals, banking, consumer goods, automobiles, and others. This paper asserts that one of the significant drivers of Indian stock market performance has been diversity in terms of performance of various sectors, as well as increasing involvement of retail traders in stock trading. Indeed, an increase in the participation of retail traders has been made possible by the rise of online investment platform. Overall, this paper discusses some of the factors affecting performance of the Indian stock market, particularly the most lucrative sectors.

KEYWORDS: Nifty 50, COVID-19, Volatility, Stock Market, Investor Behaviour, India.

INTRODUCTION

The stock market is an economic indicator of the economy of a certain country and investor sentiment. Thus, the Nifty 50 index of India reflects the overall performance of the largest companies across all sectors. Over the past decades, the Indian stock market has experienced growth because of several factors like globalization, easier financial accessibility, and the development of technology. In addition, it remains rather sensitive to certain aspects like macroeconomic changes, regulatory decisions, and foreign developments.

In terms of the negative impact caused by the coronavirus pandemic in 2020, prices were decreasing and uncertainty became evident. However, the fast recovery has occurred because of governmental support, liquidity injection, and increased retail investment. Considering the perspective until 2025-2026, the change of trends can be predicted as stable growth after rapid progress should occur. Under such circumstances, this research paper is aimed at exploring the market performance in each particular period and the reasons behind.

REVIEW OF LITERATURE

In recent years, various academic papers have been able to identify a relationship between stock market performance and macroeconomic variables, including inflation, interest rate, and GDP, as well as geopolitical factors. It was seen that changes occurred in the market index based on the above indicators along with sentiment of investors, with benchmark index Nifty 50 showing extreme sensitivity to changes. In the case of post-COVID-19 scenario, some academics have brought into focus the fact that there was an increasing trend towards volatility and also a steep fall in stock prices, with gradual recovery being noted. In terms of sector-wise analysis, it can be said that all sectors were not affected equally by the pandemic, with the pharmaceutical industry and information technology performing exceptionally well, whereas banking and financial services had to face a lot of challenges due to COVID-19. Besides this, the participation of retail investors after the onset of the pandemic had increased due to digitization of the market.

According to Sikdar (2021), the effects of the COVID-19 on the performance of different sectors within the stock market have been examined. The conclusion drawn is that although all sectors faced adverse impacts, the sectors of consumer goods and pharmaceuticals fared well in their performance. There were higher levels of volatility and trading due to heightened uncertainties.

Gupta & Sharma (2021) examined the reactions of different sectors to the occurrence of COVID-19 in stock markets. The first phase was marked by negative returns and high volatility, but the second phase saw a recovery and bull market phase.

(RBI Bulletin, 2023) The impact of monetary policies and variations in interest rates on the expectations of the stock market was covered in RBI Bulletin. A critical finding made from this study is that monetary policies have a considerable influence on the stock market expectation in industries like banking and real estate..

Rao, Hari Prasad, et al. (2024) conducted an analysis of the returns on investment of the Nifty 50, together with nine other sectoral indices, over a period of ten years. It was found that sectoral indices were able to beat the benchmark index in certain years.

Return and volatility features were studied for the Nifty 50 by Ram Prasath (2024). The research helped understand the risk and return relationship of the index and highlighted the significance of studying volatility in investments.

RESEARCH GAP

The literature concerning the markets' performance, volatility, sectorial movements, and participation of the investors during various stages of the pandemic is not sufficient. Moreover, few studies pay attention to the usage of data until 2026. Such an approach will allow gaining insight into current trends in the market. The present paper addresses the mentioned gaps in the existing literature via analyzing the Indian stock market at various stages.

STATEMENT OF THE PROBLEM

Previous research work has analyzed the responses of stock markets to the macroeconomic environment, the performance of industrial sectors, and the behavior of investors. Given the numerous factors involved and increasing complexity of interpreting market trends during volatile periods, there arises the need to understand the nature of market performance through various periods up to FY 2026. This is the rationale behind this study, which seeks to analyze past trends in market performance to better understand future trends.

OBJECTIVES OF THE STUDY

The following objectives have been devised for the purpose of this study

1. To analyse the performance of the Indian stock market across different phases up to FY 2026.

2. To examine the return and volatility characteristics of the Nifty 50 index to understand market behaviour over time.
3. To evaluate sectoral performance and examine the impact of macroeconomic and global factors on investor sentiment and market trends.
4. To analyse the role of retail investor participation in shaping recent market dynamics.

METHODOLOGY

In this study, the secondary data is taken from the website of the National Stock Exchange (NSE) and various research papers. Further, in order to analyze the trends in the market, empirical data would be used as well, for example, the daily closing price of the stock market index of Nifty 50 for January 2025 to March 31, 2026.

As far as evaluation of the performance of the market, certain statistical measures would be employed, such as average daily return, standard deviation, and annualization. The average daily return would be estimated by means of a percentage change in the daily closing prices.

$$R_t = \frac{P_t - P_{t-1}}{P_{t-1}}$$

where R_t represents the return on day t , and P_t and P_{t-1} represent the closing prices on consecutive trading days.

The average daily return is computed as:

$$\bar{R} = \frac{1}{n} \sum_{t=1}^n R_t$$

where n represents the number of observations.

Volatility is measured using standard deviation:

$$\sigma = \sqrt{\frac{\sum (R_t - \bar{R})^2}{n - 1}}$$

Annualized return is calculated as:

$$R_{\text{annual}} = (1 + R_{\text{daily}})^{252} - 1$$

Annualized volatility is calculated as:

$$\sigma_{\text{annual}} = \sigma_{\text{daily}} \times \sqrt{252}$$

where 252 represents the number of trading days in a year.

Furthermore, comparative analysis was performed to examine how market behavior varies according to various timespans. It is pertinent to mention that the selected timespan can be further subdivided into four distinct timeframes, which include the pre-COVID era (until March 2020), the COVID era (2020-2021), the post-COVID recovery phase (2021-2024), and finally, the latest market correction timeframe (March 2025 to March 2026).

DATA ANALYSIS AND INTERPRETATION

To establish the features of the Indian stock markets according to the sectors, the annual study of the following criteria was done: average daily return, median return, standard deviation, yearly return, and yearly volatility. Tables illustrated below show the results of leading indices for the period from 2020 till March 2026: Nifty 50, Nifty Bank, Nifty Pharma, Nifty FMCG, and Nifty Auto.

Table 1: Year-wise Nifty 50 Performance. (2020–2026)

Year	Mean Daily Return (%)	Median Return (%)	Std Dev (%)	Annual Return (%)	Annual Volatility (%)
2020	0.0746	0.1052	1.97	20.69	31.29
2021	0.0920	0.0946	0.99	26.08	15.65
2022	0.0230	0.0453	1.09	5.98	17.33
2023	0.0761	0.0893	0.62	21.14	9.82
2024	0.0379	0.0602	0.88	10.02	13.98
2025	0.0429	0.0711	0.74	11.41	11.81
2026*	-0.2550	-0.1800	1.14	-47.45	18.18

*2026 data up to March

Source: Computed from secondary data

Interpretation

From the annual review of the Nifty 50 index, it is evident that the level of volatility and movement in the stock market is very evident. The year 2020 was one of the most volatile because of the impact that was experienced by the market because of the pandemic and eventual lockdowns. The year 2021 was marked with a remarkable recovery in the market performance which saw excellent performance coupled with low volatility. Performance in

the year 2022 took a slight downturn owing to the uncertainties that existed in the global economy. On the contrary, the year 2023 has been very steady and good compared to other years because of the low level of volatility. As far as the years 2024 and 2025 are concerned, performance was relatively modest with low volatility. However, in March 2026, performance became negative.

Table 2: Year-wise Nifty Bank Performance. (2020–2026)

Year	Mean Daily Return (%)	Median Return (%)	Std Dev (%)	Annual Return (%)	Annual Volatility (%)
2020	0.0271	0.0605	2.71	7.05	43.14
2021	0.0615	0.0802	1.45	16.75	23.03
2022	0.0863	0.0941	1.33	24.27	21.15
2023	0.0505	0.0710	0.80	13.57	12.73
2024	0.0270	0.0526	1.10	7.04	17.49
2025	0.0667	0.0893	0.79	18.29	12.52
2026*	-0.2730	-0.2100	1.39	-49.79	22.16

*2026 data up to March

Source: Computed from secondary data

Interpretation

Based on the yearly examination of the Nifty Bank index, it is clear that there have been some variations both in terms of earnings and in terms of volatility. For example, in 2020, high levels of volatility were recorded due to the impact of the pandemic and there was only modest gains in returns recorded. From 2021 to 2023, there was marked improvement in the performance of the Nifty Bank index, whereby returns improved steadily and there were low levels of volatility. Nevertheless, between 2024 and 2025, steady increase in returns as well as low volatility were observed. However, in 2026 (March), there were negative returns in the Nifty Bank index, suggesting that there was an adjustment period in terms of returns from banks.

Table 3: Year-wise Performance of Nifty Pharma. (2020–2026)

Year	Mean Daily Return (%)	Median Return (%)	Std Dev (%)	Annual Return (%)	Annual Volatility (%)
2020	0.2074	0.1850	1.94	68.58	30.83
2021	0.0454	0.0602	1.14	12.11	18.14
2022	-0.0436	-0.0521	1.04	-10.40	16.49
2023	0.1207	0.1189	0.75	35.52	11.99
2024	0.1374	0.1302	0.93	41.35	14.72
2025	-0.0068	-0.0105	1.02	-1.71	16.11
2026*	-0.0303	-0.0250	1.11	-7.36	17.68

*2026 data up to March

Source: Computed from secondary data

Interpretation

The trend in the Nifty Pharma index shows a trend that is distinct from other industries within the stock market. The year 2020 was positive since the industry had generated approximately 68.58% returns on investment due to the high demand for pharmaceutical products amid the pandemic. After this positive phase, the year 2021 recorded negative trends that declined even more negatively in 2022 as a normalization process following their top performance. The years 2023 and 2024 recorded positive performance with little volatility. However, the year 2025 and the early part of 2026 have been experiencing negative returns.

Table 4: Year-wise Performance of Nifty Auto. (2020–2026)

Year	Mean Daily Return (%)	Median Return (%)	Std Dev (%)	Annual Return (%)	Annual Volatility (%)
2020	0.0716	0.0904	2.29	19.77	36.40
2021	0.0797	0.0856	1.40	22.25	22.17
2022	0.0674	0.0702	1.41	18.50	22.35
2023	0.1616	0.1503	0.80	50.23	12.65
2024	0.0892	0.0951	1.17	25.20	18.65
2025	0.0911	0.1023	1.13	25.78	18.01
2026*	-0.2679	-0.2400	1.79	-49.14	28.49

*2026 data up to March

Source: Computed from secondary data

Interpretation

Nifty Auto Index has shown phases of growth alongside some levels of volatility. 2020 saw huge disruptions within the market causing high levels of volatility. But from 2021 to 2022, the trends saw periods of stability and growth. Year 2023 saw very good returns of approximately 50.23%, accompanied with low volatility, implying that the market was performing well in an ideal environment.

Years 2024 and 2025 have seen steady growth with some levels of volatility. Yet, by March 2026, returns had gone down significantly. Generally, the auto sector shows cyclical trends, and tends to be more responsive to the state of the economy than defensive sectors.

Table 5: Year-wise Performance of Nifty FMCG. (2020–2026)

Year	Mean Daily Return (%)	Median Return (%)	Std Dev (%)	Annual Return (%)	Annual Volatility (%)
2020	0.0625	0.0821	1.65	17.05	26.20
2021	0.0419	0.0603	0.86	11.14	13.58
2022	0.0704	0.0758	1.03	19.42	16.30
2023	0.1059	0.1102	0.67	30.56	10.70
2024	0.0025	0.0204	0.88	0.63	13.90
2025	-0.0063	-0.0101	0.80	-1.58	12.64
2026*	-0.3216	-0.2800	1.18	-55.59	18.64

*2026 data up to March

Source: Computed from secondary data

Interpretation

The performance of the Nifty FMCG Index has been much more stable in comparison to other indices, owing to its defensive nature. During the period between 2020 and 2023, the performance of the company can be considered good, where there were high levels of volatility followed by positive growth during 2021 and 2022. However, during 2023, it is evident that the performance has increased significantly due to high gains and low volatility, which means that the industry has performed well during the same period. From 2024, there has been a slowdown in growth with virtually no growth during 2024 and negative gains in 2025 and early 2026.

Investor Behaviour Trends on the NSE (2020–2026)

On the other hand, the investment environment in the NSE for the period between 2020 and March 2026 is characterized by a shift in trends. The first phase of exponential growth was

followed by a period where maturity and conservatism prevailed. Between the years 2020 and 2024, there was an increase in the number of demat accounts from approximately 4 crore to 14 crore due to the development of technology-driven systems and trading. There was some upside in the stock exchange as the Nifty 50 index increased considerably, alongside the rise in the interest in the derivatives markets.

Between 2025 and 2026, the emphasis shifted from quick returns to stability. There was reduced involvement of retail investors, and it is estimated that there was a decline of about 7% from 4.92 crore to 4.57 crore. Investments by individuals in companies listed in the NSE stood at approximately ₹84 lakh crore, representing an asset build-up strategy. The geographical distribution of investors was widespread, covering all pin codes in India (99%) and around 62% of the new investors came from small towns.

FINDINGS

From the data, one can conclude about the presence of certain cycles within the Indian stock market in terms of the given timeframe. In 2020, there occurred an explosion in volatility with the rate reaching 31.29%, followed by recovery in 2021 and 2023, when the returns made up 26.08% and 21.14% respectively. Within 2024-2025, the market experienced a rather stable period, until it got corrected in January 2026, which caused a decline by 47.45%. Nevertheless, there occurred an annual increase in the rate of growth of Nifty 50, which amounted to 10%-26% on average.

It is necessary to highlight significant disparities within different industries. Thus, the pharmaceutical sector has achieved an impressive performance, resulting in a 68.58% profit in 2020 due to the increased demand for products. In their turn, the banks' and automobiles' sectors responded adequately to changes, demonstrating quite high volatility rates (43.14% and 36.40% respectively). It can be stated that defensive sectors, like FMCG and Pharmaceuticals, have become relatively stable, having kept the volatility level within 10%-18%.

One can talk about noticeable changes in investors' behavior within the given period. There occurred growth in retail investment, with the amount of demat accounts increasing from 4 crore in 2020 to 14 crore in 2024. It was possible to see a tendency towards long-term investment, with a stable inflow of money into SIP plans and monthly investments amounting to over ₹24,000–28,000 crore or even more than ₹3 lakh crore per year, whereas individual investment totaled ₹84 lakh crore. On the other hand, the number of active clients decreased during FY 2025-26, going down to 4.57 crore from 4.92 crore previously.

CONCLUSION

The analysis depicts the journey undertaken by the Indian stock market since 2020 till 2026. Initially witnessing a period of instability due to the virus situation, the market saw robust recovery in the ensuing years and presently is undergoing the process of correction. Despite this fact, the Indian stock market still shows signs of resilience. The general trend suggests that the market has seen a period of steady growth despite some fluctuations. From the analysis, it was also found that stocks belonging to sectors like pharmaceuticals and FMCG witnessed better performance as compared to banking and automobile stocks which are greatly affected by the business cycle. Moreover, yet another significant difference in behavior of investors that has been identified through this research study is the increasing involvement of retail investors in investing through SIP.

On the whole, it could be said that the Indian stock market is growing into an advanced market.

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