



IMPACT OF POST-COVID STOCK MARKET DEVELOPMENTS ON INDIAN ECONOMIC GROWTH: A DATA-DRIVEN ANALYSIS

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ABSTRACT:-

The share market of any country plays an important role in the economy. It is useful to measure the country's progress. With the help of different data, research tries to understand the impression of post-COVID capital market growth on the Indian economy. Examining data from 2020 to 2024, the study calculates how stock market indices, market capitalization, and trading volumes influence the country's economic growth as reflected in its GDP. Employing a Vector Auto Regression (VAR) model, the paper scrutinizes key indicators such as GDP growth, stock market performance, and inflation. The results indicate an optimistic correlation between capital market recoveries and the post-COVID economic rebound, although varying sectors present distinct challenges. This research paper helps us understand the stock market's contribution to financial planning, recovery, sustained market confidence, and policy interventions for long-term growth.

INDEX TERM:

Indian Economy, Post-COVID Stock Market, Vector Auto Regression (VAR), GDP, Inflation.

INTRODUCTION:

Amid the COVID-19 pandemic, the global economy, including India, encountered significant challenges as a result of widespread lockdowns and disruptions across various sectors. Despite these difficulties, the stock market in India displayed remarkable resilience, rebounding swiftly in the aftermath of the pandemic. This study aims to measure the intricate connection between the capital market's post-COVID performance and India's economic growth. Recognizing the increasing significance of financial markets in driving economic progress, this research will explore the extent to which the stock market's recovery has propelled economic growth, as well as identify the key drivers of this relationship.

LITERATURE REVIEW:

During the COVID-19 pandemic, the world economy faced big challenges like the shutdown of economic activities in almost all sectors. The Indian economy has also faced this problem. But the great thing was that the Indian stock market bounced back well after COVID-19. This investigation seeks to delve into the intricate correlation between the stock market's performance post-COVID and the trajectory of India's economic growth. Acknowledging the escalating influence of financial markets on economic advancement, this study will delve into the extent to which the stock market's revival has driven economic growth and identify the primary drivers of this relationship.

The impression of the COVID-19 pandemic was very negative in global and Indian stock markets. On this problem, many researchers have worked. Some studies like Ghosh (2020) focused on the impact of share market volatility in India and the market's recovery journey during this uncertain pandemic. One another study Patel and Singh (2021) talked about steps taken by the Reserve Bank of India (RBI). This paper was focused on liquidity injections and interest rate cuts and their impact on market stability.

During Post COVID-19 Pandemic, the Indian stock market recovered strongly in various sectors like healthcare, technology, and e-commerce and other sectors too. This was studied by Sharma & Gupta in 2022. Another researcher Rao, 2022 studied how much foreign investments increased in the "Make in India" campaign, This study was focused on mainly attraction of capital flow in India or its contribution to the development of the Indian capital market. Nevertheless, there is ongoing debate about the relationship between capital market performance and economic growth. Bhatia (2021) advocated that the capital market's growth post-COVID exceeded real economic recovery, while Desai and Kulkarni (2022) proposed that stock markets can serve as leading indicators of future economic trends.

Data-driven analyses, such as Prakash et al. (2022) and Kumar and Mehta (2021), revealed bidirectional relationships between stock market movements and macroeconomic indicators like GDP. This research study advocates the impact of investor sentiment and the potential for growth in stock markets. However, they failed to explain its impact on macroeconomic challenges.

OBJECTIVES:

The primary goal of our research study is to understand the deep financial activities of the Indian stock market, especially after the COVID-19 pandemic. This study covers the 2020 to 2024 period. The study seeks to understand the influence of capital market recovery on the overall economic growth of India. Additionally, the aim is to compare and establish correlation coefficients between market capitalizations, stock traded volume, and gross domestic product (GDP). Further, it is expected to analyze to the extent, the sectoral differences in stock market rebound and the effects on growth rate.

METHODOLOGY:

DATA COLLECTION:

In this research paper, it will be imperative to use secondary data which will be gathered from March 2020 to June 2024. The required research data like the Nifty 50 index, market capitalization, the volume of shares traded, etc. are imported from NSE or BSE. Additionally, economic indicators like GDP and the inflation rate will be realized by the Central Bank of India and the World Bank.

This research paper is based on two types of variables- Independent Variables and Dependent Variables. Independent variables will be stock market indices (like Nifty 50 and Sensex), market capitalization to GDP ratio, volume of stock traded, and sectoral Indices (IT, Pharma, Energy, etc.). The Gross Domestic Product growth rate and inflation rate will be used as the dependent variables.

Relating to this, the Vector Auto Regression (VAR) model will be used for the analysis of the time-series data. The VAR model has been selected because it is capable of recognizing the dynamic relationship between multiple variables. We will also be applying the Granger causality to determine the direction of causality between the stock market and economic growth.

The VAR model will be specified as follows:

$$Y_t = C + A_1 Y_{t-1} + A_2 Y_{t-2} + \dots + A_p Y_{t-p} + \epsilon_t$$

Where:

- ✓ Y_t = Vector of the dependent and independent variables (GDP growth, inflation rate, stock market indices, market capitalization).
- ✓ C = Vector of constraints.

- ✓ A_1, A_2, \dots, A_p = Matrices of coefficients.
- ✓ ϵ_t = Vector of error terms.

DATA ANALYSIS:

The Data analysis will focus on how the market factors including market capitalization and trading volume affect the rate of GDP growth. The following steps will be taken: to supplement the analysis, basic statistical measures means Descriptive Statistics will be produced to give a summary of the data set in question. Using the data collected, Unit Root Tests will be conducted to ascertain the stationarity of the data. Therefore this study will use a Granger Causality Test to establish which of the stock market variables causes economic growth. Further, an Impulse Response Function (IRF) shall be applied to estimate the propagation of shocks affecting one variable, say the stock market, on other variables.

RESULTS:

Descriptive Statistics:

The stock market performance after the onset of the COVID-19 pandemic was quite remarkable. For instance, the Nifty 50 index, which experienced a significant decline in March 2020, exhibited an amazing recovery by 2021, eventually reaching pre-COVID levels by the end of 2021. This data serves as a crucial context for our ongoing analysis.

VAR Model Output:

The VAR model aims to uncover the intricate connection between stock market variables and GDP growth. The analysis intends to determine whether stock market performance has a statistically significant impact on economic growth in the wake of the COVID-19 pandemic.

Anticipated key findings include:

- ✓ A positive correlation between market capitalization and GDP growth, suggesting that as market capitalization rises, it positively influences GDP growth.
- ✓ Stock traded volumes are expected to exhibit a positive impact on GDP growth, although this influence is likely to be less pronounced compared to market capitalization.
- ✓ It is anticipated that there will be sector-specific variations, with the IT and Pharma sectors expected to demonstrate stronger positive associations with economic recovery.

Granger Causality Test:

This test is helpful to understand the relationship between stock market developments and GDP growth. It is anticipated that the performance of the stock market, particularly market capitalization and trading volumes, will have a causal effect on GDP growth.

Impulse Response Function:

The Impulse Response Function (IRF) will illustrate the effects of stock market shocks, such as a sudden surge in market capitalization, on GDP over a while. It is anticipated that positive stock market shocks will lead to a delayed but favourable influence on economic expansion, validating the stock market's significance in post-COVID recovery.

DISCUSSION:

The research findings suggest that the Indian stock market has played a very important role in the economic recovery after post-COVID-19. With the increase in market capitalization, there is rising in investor sentiment and aggressive monetary policies, which has had a large positive impact on GDP growth. This reflects the global phenomenon that financial markets have come to shape economic recoveries post-pandemic. The recovery has been uneven. Some sectors like IT and Pharma are strong performer than other sectors.

Additionally, the research also suggests that rising stock market development likely has adverse effects on the economy because of inflationary specifications. This underscores the importance of preserving macroeconomic stability so that financial-deepening efforts can lead to sustainable long-term growth.

CONCLUSION:

In conclusion, we can say that a strong bounce back in the stock market has helped the Indian economy a lot. It is very well understood in the recovery from COVID-19. This is proven by the growth of market capitalization and trade volume. It is not an easy task, but the differences between sectors and the growing inflationary pressures put this growth at risk. Additional variables such as foreign direct investment and interest rates should be examined in future work to have a holistic vision of the long-run effects of stock market performance on economic growth.

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