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Impact of Stock Price on GDP in India During Outbreak of Covid 19 Special Reference to BSE

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Abstract - The coronavirus's spread has had a significant impact on worldwide economic and non-economic activities. With a particular focus on the Indian stock market, the coronavirus was severely harmed, and the stock market fell both globally and nationally. Using this as evidence, an attempt is made to determine how covid has influenced the economy, how the financial sector has been affected, and what the stock market has reflected as a result. The purpose of this study is to examine the impact of Covid-19 on the performance of the Indian stock market. Daily historical data of the LARGE CAP, SMALL CAP, and BSE 500 indexes were obtained and translated into quartile data from January 1, 2019 to December 31, 2020. Regression and correlation were used in the statistical analysis. The study's main finding was that GDP and the BSE Large Cap, BSE 500, and BSE Small-Cap have a positive relationship. According to the findings, the proliferation of the coronavirus had a negative impact on stock market performance.

Keywords: Covid Pandemic, BSE 500, Gross Domestic Product, Large Mid Cap, Small Cap.

I. INTRODUCTION

Covid-19's global expansion has placed the entire world on hold. Coronavirus has a substantial negative influence on people's health and finances. Both developed and developing countries' performance deteriorates in all areas during times of crisis. During a recession, practically all stock markets come to a halt and begin to decline. Nobody knows what will actually happen in the real world. The Covid-19 fall has caused a delay in the stock market, which may have an impact on the performance of several macroeconomic parameters. The impact of GDP on the pandemic problem is the topic of this research. So, based on stock price variations throughout the epidemic, it's past time to test if this theory holds true or not. Investors may notice gains, losses, or possibly nothing, as is customary.

II. REVIEW OF LITERATURE

Mohammad Noor Alam Et Cl (2020) the impact of the lockdown on the Indian stock market is examined, as well as whether the market reaction would be the same before and after COVID-19. The Market Model Event Study technique is used. A random sample of 31 companies listed on the Bombay Stock Exchange (BSE) was chosen at random for the study. The duration of the study's sample period is 35 days (February 24 to April 17, 2020). A 35-day event window was chosen, with 20 days preceding and 15 days following the event. The formal lockdown announcement (t1) is the first occurrence. The data demonstrate that the market reacted favorably during the present lockdown period, with significantly positive Average Abnormal Returns, and that investors anticipated the lockout and reacted favorably, but that investors panicked during the pre-lockdown period, as evidenced by negative AAR. The analysis reveals evidence of a positive AR surrounding the current lockdown period and indicates that the lockdown had a beneficial influence on stock market performance in the Indian context till the situation improves.

Kotishwar A (2020) the goal of this research was to investigate the impact of the Covid-19 virus on the stock market. From March 11 to April 2020, the research looked at the positive growth of six countries (the United States, Spain, France, Italy, China, and India), which were the hardest hit. (On March 11, 2020, the World Health Organization proclaimed COVID 19 a pandemic.) According to the study, which employed the VECM to determine the link, the Covid-19 has a significant negative long-run association with all of the chosen nation's stock indexes. The CAAR model was applied, and it was observed that in the post-period, all of the selected nations' indices reacted favorably more than in the pre-period. Investors are evaluating a long-term plan and investing at all levels, according to the research.

Anuj Kumar (2020) examine five NSE indexes are chosen at random. The study compared the performance of chosen variables during and before the Covid-19 epidemic using simple statistical methods like percentage and average. The study's findings show that covid-19 has a detrimental influence on the NSE's various indices for one month, after which the market begins to recover and operate properly.

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Rashmi Chaudhary ET CL (2020) this study is to look at the influence of COVID-19 on the performance of two composite indexes in the Indian stock market. The influence of COVID-19 on numerous metrics of volatility, such as standard deviation, skewness, and kurtosis of all indices, was evaluated using GLS regression. In the crisis era, all indexes' primary findings reveal lower mean daily returns than particular, negative returns relative to the pre-crisis period. All of the indices' standard deviations have increased, the skewness has turned negative, and the kurtosis values are very high. During the crisis, the correlation between indexes has widened. The Indian stock market has a standard deviation similar to that of worldwide markets, but it has a larger negative skewness and positive kurtosis of returns, making it appear more volatile.

Shefali (2021) the pattern of price decline and recovery in the Indian stock market according to capitalization size during and after the coronavirus recession, and to compare these patterns to each other so that we can assess the behavior of all cap indices and the impact of the COVID-19 recession on them. The results of the research demonstrate that large-cap indices give lower returns on average than mid-cap and small-cap indexes, and Large Cap returns varied the greatest throughout the Corona recession, making this index the riskiest index during the period.

The objective of the Study

- To analyze the impact of Covid 19 on GDP along with selected indices of the Bombay Stock Exchange.

Hypothesis of the Study

H01: There is no significant relationship between Covid 19 on GDP with respect to select indices of the Bombay stock exchange.

H02: There is no significant impact of Covid 19 on GDP with respect to select indices of the Bombay Stock Exchange.

Statement of the Problem

The spread of the pandemic has had a massive impact on various sectors of the Indian economy, particularly the financial sector. One of the main indicators used in the financial sector is stock market performance, which is used to forecast a country's financial stability and shocks. Since the pandemic shocks and lockdown completely slowed down the economic cycle, it has had a negative impact on the financial as well as other economic sectors. This possibility should be considered when determining how the covid epidemic has impacted revenue generation and slowed the economy's operating cycle. The study examines the stock market performance of the key three indices, namely the S&P BSE 500, S&P BSE Large midcap 250, and S&P BSE Small cap 250, using correlation and regression techniques with GDP as the independent variable and market indices as the dependent variables.

Significance of the Study

The goal of the research is to see how covid-19 affects BSE performance. The research will be useful to a number of BSE stakeholders as well as emerging investors who want to trade in the stock market long after the pandemic has passed.

Scope of the research

The scope of this study focus to investor to analyze the stock market and help to forecast for their investment opportunities.

III. RESEARCH METHODOLOGY

The purpose of the study is to determine the influence of the covid 19 outbreak on the S&P BSE500, S&P Small Cap, and S&P Large Midcap equities. The research is based on secondary data obtained from the BSE official website. The BSE was chosen because it was India's first electronic stock exchange, and the GDP was obtained from the RBI website. The researcher employs correlation and regression to analyses the data, with GDP as the dependent variable and S&P BSE500, S&P Small Cap, and S&P Large Midcap as the independent variables.

Correlation Analysis

Analysis of Relationship between GDP and select Indices of Bombay Stock Exchange

H_0 = There is no significant relationship between Covid 19 on GDP with respect to select indices of Bombay stock exchange.

Table 1.1 - Correlation Matrix of GDP with select Bombay Stock Exchange

	BSE 500 Indices	BSE LargeIndices	BSE SmallIndices	GDP
BSE 500 Indices	1			
BSE Large Indices	1.000**	1		
BSEB Small Indices	.990**	.989*	1	
GDP	.711	.718	.621	1

Source: compiled and computed from secondary data through SPSS

Table 1.1 reveal the correlation matrix between economic indicators GDP and select indices of the Bombay stock exchange. The strength of association between GDP and BSE 500 shows a positive relationship along with BSE large mid-cap and small-cap indices also have a high positive relationship with economic indicators. Apart from that BSE large mid-cap and BSE 500 have a high positive relationship, and a strong relationship was found between

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BSE small-cap indices with BSE 500 and BSE large mid-cap.

Regression Analysis - Regression Analysis between GDP and select indices of Bombay stock exchange

Table 1.2

Model Summary of				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.927ª	.860	.581	334773.86353
Source: compiled and computed from secondary data through				

Table 1.2 represents the model summary economic indicators GDP and select indices of Bombay Stock Exchange. The dependent variable is GDP, and the R=.927 indicates a strong positive association. The R-Square is.890, indicating that the total linear influence of independent variables accounts for 89 percent of performance variation. The modified R square is.581, indicating that the model explains 58.1 percent of the variation in the criterion variable.

H_0 = there is no significant impact of Covid 19 on GDP with respect to select indices of Bombay stock exchange.

ANOVA for GDP with select indices of Bombay Stock Exchange

Table1.3

ANOVAª						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	689765293145.062	2	344882646572.531	3.077	.374ᵇ
	Residual	112073539700.939	1	112073539700.939		
	Total	801838832846.000	3			
a. Dependent Variable: GDP						
b. Predictors: (Constant), BSE Small Indices, BSE Large Indices						

Table 1.3 shows the ANOVA for the impact of GDP on select indices of the Bombay stock exchange. The significant value of the table is above 0.05 which is .374 keeping GDP as the dependent variable and select indices as the independent variable such as BSE 500, BSE LargeMid Cap, and BSE SmallCap 250. This means that there is no significant effect of GDP on the select indices of the Bombay Stock Exchange, hence we accept the null hypothesis.

Coefficients of GDP with select indices of Bombay Stock Exchange

Table 1.4

Coefficientsª						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	-4923785.183	3640304.386		-1.353	.405
	BSE large indices	1550.334	841.405	4.571	1.843	.317
	BSE small indices	-2151.024	1369.038	-3.898	-1.571	.361
a. Dependent Variable: GDP						

Table 1.4 shows the coefficient for the impact of GDP on the select indices of the Bombay stock exchange.it implies that nor the BSE 500, BSE LargeMid Cap, or BSE Small-Cap have significant at 5 percent level. Which means that there is no significant relationship with GDP. It means that the independent factors negatively impacted the dependent factors.

IV. FINDINGS, SUGGESTION AND CONCLUSION

Findings

- There is a positive relationship between GDP and BSE 500, BSE LargeMid Cap, and BSE SmallCap 250.
- There is a positive relationship between BSE LargeMidCap and BSE SmallCap has a positive relationship with BSE LargeMid Cap and BSE 500.
- The high positive association between the GDP and the select indices of the Bombay Stock Exchange.
- There is no significant effect of GDP on the select indices of the Bombay Stock Exchange.
- The BSE 500, BSE LargeMid Cap, or BSE Small-Cap doesn't have a significant relationship with GDP.

Suggestion

From the above study the researcher suggest that the indices of BSE stock market have positive relationship and in reference to GDP have a convenient relationship.

The covid pandemic which negatively affected the economy in focus to selected macroeconomic variable and selected indices of stock market.

V. CONCLUSION

GDP is one of the main indicator of the performance of the country. In this study shows that GDP has a favorable association with specific BSE indices, according to the study. Even if there is a positive association, the regression analysis demonstrates that GDP has a negative impact on certain indexes. It means that the stock market is heavily influenced by GDP, yet the covid epidemic has had a significant impact on both GDP growth and stock market performance. The covid epidemic has slowed the rate of GDP growth as well as other macroeconomic indices. Because of the poor growth rate, it is clear from the study that GDP has had a negative impact on the stock market. As a result, the researcher came to the conclusion that the covid epidemic had a negative impact on both macroeconomic indices and the stock market.

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LIMITATION

- The study is completely based on secondary data and there are some limitations of using those data may affect the results.
- Only the selected macroecnomical variable are selected and the rest of them are excluded.

REFERENCES

[1] Anuj, K. (2020). Performance of Indian Stock Exchange During Covid-19: A Study of National Stock Exchange (NSE). *Mukt Shabd Journal*.

[2] Kotishwar, A. (2020). Impact of covid-19 pandemic on stock market with reference to select countries – a study. *Academy of Accounting and Financial Studies Journal*, *24*(4).

[3] MOHAMMED K, N., & M, S. (n.d.). A Study On Influence Of Behavioral Factors On Investment Satisfaction Of Individual Investors In Kerala. *International Journal of Scientific & Technology Research*, *9*(3).

[4] Mohammad Noor, A., Md. Shabbir , A., & Kavita , C. (2020). Stock Market Response during COVID-19 Lockdown Period in India:. *Journal of Asian Finance, Economics and Business An Event Study*, *7*(7), 131-137.

[5] Rashmi , C., Priti , B., & Hemendra, G. (2020). The performance of the Indian stock market during COVID-19. *Investment Management and Financial Innovations*, *17*(3).

[6] M., S., & P, S. (2018). Investors perceptions towards Mutual Funds: A Study among the selected House Holds from Coimbathore. *RESEARCH REVIEW International Journal of Multidisciplinary*, *3*(11).

[7] SHEFALI. (2021). Comparing trends in large cap, mid cap and small cap indices during and after covid-19 recession. *Perspectives on Business Management & Economics*.

[8] Sujith, T. S. (2016). A study on economic benefits of Goods and Services Tax on Indian Tax Scenario. *International journal of current research in multidisciplinary, 2(17),10-13*

[9] Sumathy, M., & Das, A. S. Recovery channels of npa in scheduled commercial banks. *International Journal of Business and Administration Research Review,8(3),103-108*

 DOI : 10.35291/2454-9150.2021.0612