

IMPACT OF COVID 19 ON SECTORAL INDICES OF NSE: AN EVENT STUDY

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ABSTRACT

Covid19 have been making drastic changes in the entire world even in all the spheres of life. All the nook and corners of economy is affected by this novel corona virus and Indian economy has been in phase of recovery. In this study the impact of Covid 19 on sectoral indices of NSE along with the benchmark index Nifty 50 is analyzed in relation to the major events happened in India. A short term event windows of all events are created and based on the closing price of indices Matched Pair's t- test is used to analyze the data. Pearson's correlation is also used to know the short term movement of market. It's identified that Nifty 50 always showed a tendency to minimize the decline and all the sectoral indices followed the same except Nifty pharma and Nifty IT. The increasing number of Covid 19 positive cases and fatality rate showed an impact of decline in the market.

Keywords: Covid 19, NSE Sectoral indices, Major events

1. Main text

As Sir John Templeton said “The four most dangerous words in investing are: ‘this time it’s different.’”. The minuscule chance of changing the nature of stock prices is evident from the stock market all the time. Even in

the current situation we have been facing such a different time. Novel Corona Virus is the ruling authority today. Every facets of world has influenced by its mutation. Covid 19 has its importance on all the spheres of life. World economy has faced a crucial time and there isn't any

exception for Indian economy. While looking through the stock market movements it's clearly visible that the potentials of long term investors paved a path for the fast recovery from a huge decline. Indian market also faced a crucial time. This is the most affected economic crisis in India after 2014. Many newbie investors are experiencing a first time market crash in their investment journey. As far as concerned with a long term investors every single dip in market is seems to be as an opportunity. This 'futuristic approach' is the only thing that helps the stock market to recover. In India the first Covid 19 case was reported at Kerala on 30th January 2020. A panic was seen there in stock market but it recovered immediately. The major sign of decline was begun on the last week of February and until the imposition of nationwide lock down stock market crashed deeply. The Indian stock market shown a recovery after complete lock down and a gradual improvement has happened in the market. In India NSE Nifty and BSE Sensex are the benchmark indices. These indices are exhibiting the picture of the entire market movements. As concerned with an investor it is very essential to check these benchmark indices for their investment decision. This study is focused on the benchmark index Nifty 50 along with their sectoral indices. The sectoral indices are the indicators of the sector movements in the economy. It's true that some of the sectors have enjoyed the benefits of growth during this time. As the work from home and online platform

for everything is implemented IT sector is highly benefited. Of course everyone is living with a hope of a vaccine and everyone is trusted upon the pharmaceutical sector. India is providing various vaccines for 50% of the global demand. And the entire world is looking into the world's largest pharmaceutical industrial park "Hyderabad pharma city" for the vaccine to defeat Covid 19. In this scenario this study is an attempt to analyze the impact of Covid 19 on sectoral indices of NSE along with the benchmark index Nifty 50. The major events happened during this period was identified and a short term market impact is analyzed through this study. It is essential to analyze the movements of various sectors in economy in such a pandemic situation. As this is a new phenomenon it should be explored in detail for further analysis of the stock market.

2. Review of Literature

Dr. Mario Arturo Ruiz Estrada, Evangelos Koutronas, Minsso LEE (2020) investigated the impact of Covid 19 on the performance of 10 stock markets including S&P 500, TWSE, Shanghai stock exchange, Nikkei 225, DAX, Hang Seng, UK-FTSE, KRX, SGX and Malaysia FTSE. Author's simulator model is used to analyze the data and the concept of stagpression is introduced. By 'stagpression' authors mean that a new economic phenomenon that narrates the unchartered financial market or economy. They concluded that 150 lock down period is disastrous

to every economy and 9-12 month recovery phase is needed to catch the fundamentals of the economy. Dinh Hoang Bach Phan and Paresh Kumar Narayan (2020) carried out a study to analyze the country responses and reaction of stock market to Covid 19. They understudied responses of government to Covid 19 for the world's top 25 most affected countries. They conducted a descriptive analysis using table and graphs by including information's of messages on Covid and number of death and countries and returns respectively. They understood from the study that the governments were reacting slowly to pandemic and the understudied stock markets are expecting a correction. HaiYue Liu, Aqsa Manzoor, CangYu Wang, Lei Zhang and Zaira Manzoor (2020) analyzed the affected countries stock markets response in relation to the Covid 19 outbreak. Japan, Korea, Singapore, USA, Germany, Italy and UK are the understudied countries and event study method is used to analyze the secondary data. The researchers analyzed the short term impact of the corona virus outbreak on 21 leading stock market indices. They identified that the stock markets fell quickly and Asian countries were experienced more negative abnormal returns. They also found that the Covid confirmed cases have significant adverse effect on stock market indices.

Mohammad Noor ALAM, Md. Shabbir ALAM, Kavita CHAVALI (2020) conducted an event study in India to know the extent of the influence of the lock down and they also aimed at

analyzing the market reaction during pre and post lock down period. The event study market model by Fama et al (1969) is followed in this study for that 31 companies listed in BSE are randomly selected. They concluded that the investors are anticipated the lock down and they reacted positively. In pre lock down period investors were panicked and after the confirmation of lock down the market performance of stocks were positive. Hamid Sakaki (2019) studied impact of demand and supply shocks of oil on the US stock market. It also studied the impact of oil price volatility on stock returns. Kilian's (2009) VAR decomposition and unit root test are used to analyze the data of monthly returns of ten S&P 500 sectoral indices from January 1990 to January 2015. It is identified from the study that positive shocks to US production of oil and economic activity have a significant positive influence on the stock returns. It is also identified that the oil price volatility has a significant negative impact on all industries. S.Akhila, Mrs. K. Neeraja (2018) conducted a comparative analysis in India by sectoral indices with NSE index. 5 years quarterly data is obtained from NSE and money control website and the data were analyzed by using SD, beta and correlation. They found that automobile, media and banking sectors are providing high returns with high risk. They also identified that pharma and FMCG sectors are less risky. Bambang Sutrisno (2017) analyzed macro economic variables and sectoral indices in the scenario of Indonesian stock exchange. Ordinary

least square research model of Shafana (2014) were applied to analyze the monthly time series data from January 2005 to December 2014. The researcher identified that the inflation rate, interest rate and exchange rate simultaneously have a significant effect on sectoral indices of Indonesia. And they also found that the inflation rate partially has no significant effect on all sector but the exchange rate partially has a significant negative impact on all industries. Aravind M. (2017) analyzed the co-movements of twelve NSE sectoral indices and Nifty on a daily basis from January 2012 to December 2016. Unit root test and granger causality test is conducted on the Daily time series data of NSE sectoral indices from 1st January 2012 to 31st December 2016. They identified that a significant unidirectional relation can be identified with automobile sector to Fin Services, media, pharmaceutical and private banking sectors. They also put forwarded that relation is bidirectional with private banks and Nifty. Media sector is affected by the fluctuation from all sectors.

Dr. P. Bhanu Sireesha (2016) conducted a study to know the impact of union budget on sectoral indices of NSE. Secondary data of daily closing price of 12 sectoral indices of NSE and India budget were obtained and Wilcoxon Matched Pairs Test was conducted. Event windows of 10, 20 and 30 days were set up to identify the short term, medium term and long term impact. It is found that the budget announcement had highest impact on

the long term. Out of the 12 indices selected for the study 4 indices, energy, metal, IT and PSU, had the maximum significant influence from the union budget. Vanita Tripathi, Arnav Kumar (2014) conducted a study on sectoral efficiency of the Indian stock market and the impact of global financial crisis. Based on 10 years data of 11 sectoral indices of NSE unit root tests and variance ratio tests are conducted. They found that the overall market was weak form efficient in pre crisis and post crisis periods. They suggested that what is true at macro level may not hold true at micro level. They found that FMCG sector is found as the most defensive sector and arbitrage opportunities are seemed in bank, metal and PSU bank sectors after this financial crisis. Prof. Pramod Kumar (2012) analyzed the impact of quarterly results on Sensex by the constituents of BSE sectoral indices. Top 5 sectoral indices viz; BSE Bankex, BSE IT, BSE FMCG, BSE auto and BSE Teck were understudied with the statistical tools coefficient of correlation, coefficient of determination and standard deviation. They understood from the study that the quarterly results have impact on the movement of Sensex and at the time of announcement of results the market can vary as per their daily returns. They also pointed out that these types of announcements can affect the market in short run only.

From the related studies it's identified that various studies are conducted in relation to Covid 19 and its impact but there isn't any available studies

concerning impact of Covid on sectoral indices, particularly NSE sectoral indices. As the first reported positive case of Covid 19 had influenced the entire economy it's essential to check its impact on various sectors. As Indian stock market has been an emerging one it should be helpful to have a sectoral wise overview in this type of pandemic situation.

3. Statement of the Problem

The world economy has faced many pandemic situations. Whatever happens to the humanity definitely reflects on the financial markets. Investors aren't in exception with regard to the effect of these pandemics but an investor has to tackle this. In such pandemic situation the entire economy will crash. In respect to this stock market also face a correction. As the economy differs its impact due to these pandemics is also different. In this Covid 19 pandemic situation Nifty 50, the benchmark index of NSE, corrected around 40%. And its strong fundamentals helped it to a faster recovery. But it is doubted that the investor's portfolio also recovered similar to this. It is also needed to check that whether all the sectors are recovered as Nifty 50 done. So it is necessary to study the impact of Covid 19, specifically in various sectors, on investors' point of view. Then only the investors are capable of developing strategies to meet this situation and revising their portfolio. Though we are considering Nifty 50 as the representation of the Indian economy, it is in dilemma when we have a

deep look into it. Because various adjustments have been done in Nifty 50, sometimes it didn't represent the economy as well. So it is important to analyze the recovery of various sectors than Nifty 50. So as an investor it is essential to know the sectoral impact of this crucial situation in relation to the major events happened during the period. It's also needed to check the recovery phase of each sector thereby it will be useful for the investors to have an idea about the general market movements in this Covid 19 pandemic situation.

4. Research Methodology

To identify the nature and extent of the impact of Covid 19 on sectoral indices of NSE, daily closing prices of all the 13 sectors along with the benchmark index of Nifty 50 were collected from the official website of NSE. Covid 19 related major events in India are obtained from various articles published in Indian Express and Business Standard and it's presented in Table 1. Daily closing prices of each sectoral index were collected for a period of 10 trading days before and 10 trading days after the each event day. This analysis is done on the basis of the assumption that the short term impact of each event can be measured within a maximum of 10 trading days. This analysis is entirely focused on the immediate effect of events in relation to Covid 19 in India. The sectoral indices understudied are presented in the Table 2. Matched pairs t-test is used to analyze whether their mean is differ or not and based

on that interpretations are made. Each event day is created by taking the date of major events happened in relation to Covid 19 in India. The closing prices of the index before and after the event day are taken and paired, i.e. the first pair represents the closing price on one day before and one day after the event day, second pair represents the closing price on two days before and two days after the event day, and likewise up to 10th day. Matched

pairs t-test value (P (T<=t) two-tail) is obtained for each index separately for each identified events and Pearson's correlation is also identified.

5. Results and Discussion

The statistical results show the significant differences of paired samples of stock index values for 13 sectoral indices of Nifty and the benchmark index of Nifty 50. Impact on Covid 19 on sectoral indices

Table 1 Covid 19 Related Major Events in India

SN	Date	Event
1	January 30	India's first novel corona virus patient was reported
2	March 12	India reports first fatality due to Covid-19
3	March 25	A nationwide lockdown was imposed till April 14
4	March 27	RBI allows moratorium on loan repayment
5	April 29	1,000 confirmed deaths recorded
6	May 12	PM announces Rs 20 lakh crore Atmanirbhar package,
7	May 15	India Records 100 COVID-19 Deaths in 24 Hours.
8	May 19	Total Covid-19 cases in India cross 1 lakh
9	May 31	India records 5,000 deaths
10	June 1	India is now the 7th-most-infected country
11	June 8	Unlock 1.0
12	June 12	India overtakes UK to become 4th worst corona virus-hit country
13	June 27	Total cases cross 5 lakh
14	July 1	India enters Unlock 2.0
15	July 6	India overtakes Russia to become third worst corona virus-hit country,
16	July 15	Phase-1 clinical trials of India's first indigenous Covid-19 vaccine, Covaxin
17	August 29	Centre issues Unlock 4.0 guidelines
18	August 31	India's Gross Domestic Product (GDP) growth contracts 23.9 per cent in the April-June quarter
19	September 7	India overtakes Brazil to emerge as the country with the second largest

of NSE along with the benchmark index Nifty 50 for the major events occurred understudied using a short term event window of 10 days. On 30th January when India's first Novel Corona Virus patient was reported, short term impact on Nifty 50 was significant. But the changes were not significant in the case of Nifty Bank, Nifty Fin Services, Nifty IT And Nifty Private Bank. All other sectoral indices showed significant changes and showed the same effect on Nifty 50. Nifty 50 showed a positive correlation in that short period of time and some of the indices stood with the benchmark index but Nifty Auto, Nifty Consumer Durables, Nifty IT, Nifty Media, Nifty Pharma, Nifty PSU Bank and Nifty Realty showed a negative correlation. On 12th March when India reported the first fatality due to Covid-19, impact on Nifty 50 and its sectoral indices are highly significant. All the sectoral indices showed a decline. Nifty 50 showed a negative correlation and all the sectoral indices except Nifty Pharma was negatively correlated. Definitely everyone is realized the negative consequences may arise and the hidden fear was clearly shown in their investment decision. Pharma sector was unaffected by all market events and it moved in the growth direction as it chartered. On 25th March when nationwide lockdown was imposed till April 14, short term impact on Nifty 50 was not significant. Nifty Fin Services, Nifty IT And Nifty Oil & Gas also had no significant impact during the time. All other sectoral indices showed significant changes and their

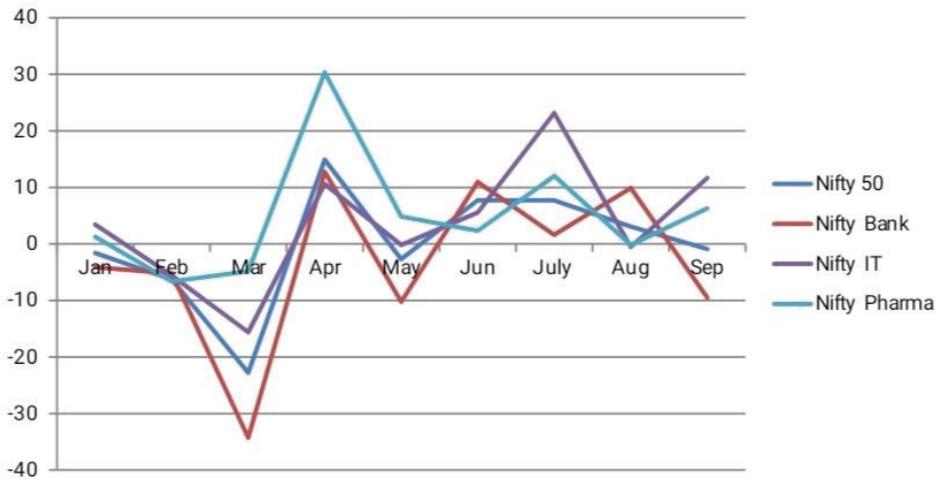
closing price mean values changed significantly. Generally the market showed a sign of recovery in regard to this event and the indices didn't fall further beyond this point. Nifty 50 showed a positive correlation and Nifty Bank, Nifty Fin Service, Nifty PSU Bank, Nifty Pvt. Bank and Nifty Realty showed a negative correlation. All other indices are moved in the same direction of Nifty 50.

On 27th March when RBI allowed moratorium on loan repayment, the impact on Nifty 50 was not significant. Nifty Bank, Nifty Consumer Durables, Nifty Fin Services, Nifty IT And Nifty Private Bank is also showed no significant changes. All other indices showed significant changes during the short period of time. Nifty 50 and all other indices are showed a positive correlation. The matter related to moratorium was already accepted by the market and the financial sectors moved accordingly. On 29th April when 1,000 confirmed deaths recorded, the short term changes on Nifty 50 were not significant. Nifty Bank, Nifty Fin Services, Nifty Media, Nifty Metal, Nifty Pharma and Nifty Private Bank are also showed no significant changes. All the remaining sectoral indices showed significant changes. Nifty 50 showed a positive correlation together with all other indices except Nifty FMCG, Nifty Media, Nifty Metal, Nifty PSU Bank and Nifty Realty. Though the situation is getting worse, the expectations of investors lead the market.

On 12th May when Prime Minister

announced Rs. 20 lakhs crores Atmanirbhar package, Nifty 50 showed a highly significant impact. All other sectoral indices were in same position of Nifty 50 except Nifty FMCG, Nifty IT, Nifty Media, Nifty Metal and Nifty Pharma. That was a light in the darkness for many sectors and Indian companies are supposed to flourish as per this package especially in agriculture and public sector industries. Nifty 50 showed a negative correlation and majority of the sectoral indices followed this. But Nifty auto, Nifty FMCG, Nifty IT, Nifty Media, Nifty Oil & Gas and Nifty Pharma showed a positive correlation. On 15th May when India Recorded 100 COVID-19 Deaths in 24 Hours, the short term impact on Nifty 50 was not significant. The impact of the event was not significant among Nifty Auto, Nifty Consumer Durables, Nifty IT, Nifty Media and Nifty Metal. All other sectoral indices showed a

significant impact on the event. Nifty 50 showed a positive correlation along with all other indices except Nifty Auto and Nifty Media. On 19th May when the total Covid-19 cases in India crossed 1 lakh, the changes on Nifty 50 were not significant. But the event made significant impact on Nifty Auto, Nifty Consumer Durables, Nifty FMCG, Nifty IT, Nifty Metal and Nifty Pharma. All other remaining sectoral indices showed the same effect as Nifty 50. Nifty 50 showed a positive correlation along with all other indices except Nifty auto, Nifty FMCG, Nifty IT, Nifty Media, Nifty Metal and Nifty Realty. On 31st May when India recorded 5,000 deaths, Nifty 50 showed a significant impact. All the sectoral indices had significant impact in relation to this event. Nifty 50 showed a negative correlation along with all other indices except Nifty Consumer Durables and Nifty FMCG.



On 1st June when India became the 7th-most-infected country, it made a significant change on Nifty 50 and all the sectoral indices. Nifty 50 was in positive correlation along with Nifty Auto, Nifty Consumer Durables, Nifty FMCG and Nifty IT. All the remaining indices showed a negative correlation. This might have happened due to the ambiguity in the mind of masses. On 8th June when the first unlock was done, the impact on Nifty 50 was not significant. The immediate changes on Nifty Consumer Durables, Nifty FMCG and Nifty Fin Services are also not significant. But all other sectoral indices showed a significant impact. Nifty 50 showed a negative correlation and all other indices are moved as same as Nifty 50 except Nifty Consumer Durables, Nifty FMCG, Nifty IT and Nifty Pharma. On 12th June when India overtook UK to become 4th worst corona virus-hit country, it doesn't made any significant impact on Nifty 50. It only showed significant impact on Nifty Auto, Nifty Media, Nifty Oil & Gas, Nifty PSU Bank and Nifty Realty. Among all the remaining sectoral indices its impact was not significant. Nifty 50 showed a negative correlation and all other sectoral indices were followed the same. But Nifty consumer durables showed zero correlation in the 10 days short period of time. On 27th June when the total cases crossed 5 lakh, Nifty 50 showed a significant impact. All other sectoral indices had significant impact except Nifty Media, Nifty Metal, Nifty PSU Bank and Nifty Realty. Nifty 50 showed a negative correlation together with all other

indices except Nifty Oil & Gas and Nifty Pharma.

On 1st July when India entered Unlock 2.0, the short term impact on Nifty 50 was significant. All sectoral indices had significant changes except Nifty Media and Nifty Pharma. Nifty 50 showed a positive correlation. Nifty FMCG, Nifty IT and Nifty Pharma showed negative correlation but all other sectoral indices stood with Nifty 50. On 6th July when India overtook Russia to become third worst corona virus- hit country, the impact on Nifty 50 was significant. But Nifty Media, Nifty Oil & Gas, Nifty Pharma, Nifty PSU Bank and Nifty Realty showed no significant impact in relation to this event. Nifty 50 showed a positive correlation and Nifty Auto, Nifty Bank, Nifty Consumer Durables, Nifty Fig. 1. Monthly percentagewise returns of Nifty 50, Nifty Bank, Nifty IT and Nifty Pharma

Fin Service, Nifty Metal, Nifty Oil & Gas, Nifty Pharma and Nifty Pvt. Bank showed the same relationship. On 15th July when Phase-1 clinical trials of India's first indigenous Covid-19 vaccine, Covaxin, was initiated the changes on Nifty 50 was significant. All the sectoral indices showed significant impact except Nifty Bank and Nifty Private Bank. Nifty 50 showed a negative correlation along with Nifty Auto, Nifty IT, Nifty Metal and Nifty Oil & Gas. All other indices showed a positive correlation.

On 29th August when Centre issues Unlock 4.0 guidelines, the changes on Nifty 50 was not significant. But Nifty

FMCG, Nifty Metal, Nifty Pharma and Nifty Private Bank showed significant impact. Nifty 50 showed a positive correlation along with other indices except Nifty Auto, Nifty Consumer Durables, Nifty FMCG, Nifty Media, Nifty Oil & Gas and Nifty Pharma. On 31st August when India's Gross Domestic Product (GDP) growth contracts 23.9 per cent in the April-June quarter, the short term impact on Nifty 50 was not significant. Only the sectoral indices Nifty FMCG, Nifty Media, Nifty Metal, Nifty Pharma and Nifty Realty showed significant impact in response to this event. Nifty 50 showed a positive correlation along with all other indices except Nifty Consumer Durables, Nifty FMCG, Nifty Media, Nifty Oil & Gas and Nifty Pharma. On 7th September when India overtook Brazil to emerge as the country with the second largest number of people infected, the impact on Nifty 50 was not significant. Nifty Auto, Nifty Media, Nifty Oil & Gas, Nifty Pharma and Nifty Realty are also showed no significant impact. All the remaining sectoral indices showed significant changes. Nifty 50 showed a positive correlation. Nifty Auto, Nifty Bank, Nifty Consumer Durables, Nifty Fin Services, Nifty Media, Nifty Oil & Gas, Nifty Pharma, Nifty PSU Bank, Nifty Pvt. Bank and Nifty Realty stood with Nifty 50. All the remaining indices showed a negative correlation in the 10 days short span of time.

6. Conclusion

Covid 19 pandemic is affected the Indian security market as similar as

world economy. The immediate effect was crucial, for time being Indian stock market recovered. While analyzing the stock market movements on the basis of the major events occurred during the period it is identified that Nifty 50 showed positive correlation in majority times in respect to the major events spotted. Nifty 50 showed a panic condition when the first fatality case was reported and also at the situation when the first unlock was announced. Nifty 50 always showed a tendency to move upward and to minimize the decline level. So it is moved through a defined trend line. Nifty Bank is moved along with Nifty 50 in same direction from January to middle of the September. From that point Nifty bank showed a decline irrespective of the slow growth of Nifty 50. Till that when Nifty 50 showed an advance Nifty bank advanced more than Nifty 50. And when Nifty 50 declined Nifty bank declined more than that of Nifty 50. Nifty Auto also moved along with Nifty 50. When it advanced, Nifty auto also advanced with higher rate. It was the same case when it declined.

Nifty IT's movement is much differ from that of Nifty 50. After January 30 Nifty IT advanced more than that of Nifty 50. And it should be noted that Nifty IT not much declined when Nifty 50 declined. And Nifty IT is recovered earlier than Nifty 50. It's remarkable that from the month of August Nifty IT advanced in higher rate than Nifty 50 (around 5 times). Nifty PSU bank is moved along with Nifty 50 in the same direction but the magnitude of change

is different. Nifty PSU bank is declined earlier than Nifty 50 in March 18 itself and it didn't show an advance till the last day of the understudied period. Nifty 50 showed a recovery phase and it's slowly getting advanced. But Nifty PSU bank not yet showed a sign of advancement. Nifty fin service moved with Nifty 50 in the same direction but the change was higher than that of Nifty 50. From the last week of August Nifty 50 showed a sign of advancement and trying to be advanced but Nifty fin service didn't show a sign of advancement and it is still declining.

Nifty pharma moved along with Nifty 50 till the last of March and it is shown a high advancement after that. But Nifty 50 showed a weakness and it is declined up to the last day of the understudied period and it showed a tendency to recover. Nifty pharma is recorded around 50% up move. The movement of Nifty FMCG is similar as Nifty 50. But the change was lower than that of movement of Nifty 50. Nifty metal moved as same as Nifty 50. But the change was a little bit higher than Nifty 50. The movement of Nifty realty is same as Nifty 50 but the rate of change is much higher than Nifty 50. Nifty media is moved as same as Nifty 50. Nifty 50 showed strength of advancement in the last day of the understudied period but Nifty media is not there in a position to show any sign of advancement. Nifty Pvt Bank moved along with Nifty 50. But it didn't show a sign of recovery when Nifty 50 shown.

It can be concluded as when the number of positive cases of Covid 19 has increased the sectoral indices along with their benchmark index shown a trend reversal for a short term period. NSE sectoral indices are highly negatively affected by the situations where the number of fatality cases increased. The first fatality reported March 12 and 5000 deaths recorded May 31 are the days where the market severely crashed. When Prime Minister announced Rs 20 lakh crore Atmanirbhar package, the declining market showed strength to recover but the increased Covid 19 positive cases and fatality rate immediately after that pull down the market to crash again. When the first unlock was imposed the market showed a short term decline but when the second unlock was imposed the market showed an advance. The market always showed a tendency to minimize its decline and tendency to advance. Nifty IT and Nifty pharma moved against the general trend of the benchmark index. Nifty Auto, Nifty FMCG, Nifty Metal and Nifty energy moved as similar as Nifty 50. Nifty Bank, Nifty Fin services, Nifty PSU Bank, Nifty Pvt Bank, Nifty Oil & Gas and Nifty Realty didn't move along with Nifty 50. Though Nifty 50 is in a phase of recovery majority of the sectors are not in a position to recover. So it is to be admitted that Nifty 50 didn't represent the economy always

Reference

Akhila, S., & Neeraja, K. (2018). A comparative analysis of sectoral indices with NSE index. *International Journal of Engineering Technology Science and Research*, 5(3), 1–5. http://ijetsr.com/images/short_pdf/1522136342_1458-1462-oucip930_ijetsr.pdf Phan, D. H. B., & Narayan, P. K. (2020). Country Responses and the Reaction of the Stock Market to COVID-19—a Preliminary Exposition. *Emerging Markets Finance and Trade*, 56(10), 1–14. <https://doi.org/10.1080/1540496X.2020.1784719>

Liu, H. Y., Manzoor, A., Wang, C. Y., Zhang, L., & Manzoor, Z. (2020). The COVID-19 Outbreak and A ected Countries Stock Markets Response. *International Journal of Environmental Research and Public Health*, 17, 1–19. <https://doi.org/10.3390/ijerph17082800>

ALAM, M. N., ALAM, M. S., & CHAVALI, K. (2020). Stock Market Response during COVID-19 Lockdown Period in India:An Event Study. *Journal of Asian Finance, Economics and Business*, 7(7), 1–7. <https://doi.org/10.13106/jafeb.2020.vol7.no7.131>

Tripathi, V., & Kumar, A. (2015). Sectoral Efficiency of the Indian Stock Market and the Impact of Global Financial Crisis. *Journal of Commerce & Accounting Research*, 4(1), 1–13. <http://ssrn.com/abstract=2605374>

Sireesha, P. (2016). Impact of Union Budget on Sectoral Indices of NSE. *The Indian Management Researcher*, 3(1), 1–17. <https://ssrn.com/abstract=2879538>

Aravind, M. (2017). The Dynamic Linkage Among Sectoral Indices: Evidence from Indian Stock Market. *Rajagiri Management Journal*, 11(2), 1–18. <https://ssrn.com/abstract=3126747>

Saxena, P. K., & Khanna, K. (2012). Impact of Quarterly Results on Sensex and Market Volatility - An Empirical Research. *Journal of Accounting & Finance*, 26(1), 1–10. <http://ssrn.com/abstract=2111715>

Sutrisno, B. (2017). Macroeconomic Variables and Sectoral Indices: Case in the Indonesian Stock Exchange. *Etikonomi*, 16(1), 1–10. <https://doi.org/10.15408/etk.v16i1.4323>

Sakaki, H. (2019). Oil Price Shocks and the Equity Market: Evidence for the S&P 500 Sectoral Indices. ., 1–36. <https://ssrn.com/abstract=3340063>

Estrada, M. A. R., Koutronas, E., & Lee, M. (2020). Staggression: The Economic

and Financial Impact of COVID-19 Pandemic. ., 1–16. <https://ssrn.com/abstract=3593144>

Jasuja, D., & Sharma, P. (2020). Anticipation of Consequences & Sectoral Impact of COVID-19 – An Indian Outlook. XV National Conference on Sustainable Management Practices & Economic Slowdown in India, 1–26. <https://ssrn.com/abstract=3626278>

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), 1–9. <https://www.abacademies.org/articles/Impact-of-Covid-19-Pandemic-on-Stock-Market-with-Reference-to-Select-Countries-1528-2635-24-4-568.pdf>

Ngwakwe, C. C. (2020). Effect of COVID-19 Pandemic on Global Stock Market Values: A Differential Analysis. *Economica*, 16(2), 1–15. <http://journals.univ-danubius.ro/index.php/oeconomica/article/view/6548>