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Full Length Research Paper

## Performance and Total Return Behaviour of Nifty Health Care Sector During Pandemic: A Review

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ARTICLE INFORMATION	ABSTRACT
<p><b>Corresponding Author:</b> Violet Glady</p> <p><b>Article history:</b> Received: 04-08-2022 Revised: 09-08-2022 Accepted: 15-08-2022 Published: 17-08-2022</p> <p><b>Key words:</b> Performance, Return Behaviour, Measure of Central Tendency.</p>	<p><i>Covid 19 is an uncertain situation that India and the whole world has faced. Covid 19 has brought India to a stand-still, it had an extreme negative effect on the Indian stock market. The growing stage of the Indian stock market has come down to the recession stage. This paper analyses the Nifty health care sector performance during the time of Covid 19. The primary objective of this study is to measure the performance and return behavior of nifty health care sector during pandemic. Secondary objective is to estimate the measure of central tendency of the total return index for 2019 &amp; 2020 in nifty health care sector. Thus, this paper analyses the central tendency and comparison of total return during 2019 before pandemic and 2020 exclusively in nifty health care sector. Central tendency measure is used to evaluate the performance and price behavior of nifty health care sector. The methodology adopted helps to know the performance and changing behavior of prices due to various economic factors. Stock market is constantly affected with operating business cycles due to uncertain series of situations like fall in currency price, pandemics, global recessions and various factors. It is found in past studies that price volatility tends to affect the returns to investors. Stock Price volatility is high during pandemic time and market was negative and had loser portfolio at the pandemic time. Stock Price Volatility have adverse impact on return.</i></p>

### Introduction

S & P CNX is popularly known as NIFTY. It has well diversified which includes 50 stock indices of companies from 14 sectors. These stocks are considered to be leaders of their sectors. Nifty 50 is a professionally maintained Index by India Index Services and Products Ltd. (IISL), which is a joint venture between NSE and CRISIL. There are few eligibility criteria for listing the stocks in NIFTY. Firstly, NIFTY Measures the liquidity of the stock (How easily the stock can be bought and sold without affecting the price). Secondly, it measures the market cap of a particular company.

The Nifty health care Index reflects the behaviour and performance of the healthcare companies. The nifty health care Index comprises of 20 tradable companies' stocks which are listed. Nifty healthcare Index is computed using free flat capitalization method. The companies that come under NIFTY 50 enables you to diversify your investment that is you can invest in multiple companies and sectors thereby reducing the risk of loss. Healthcare was one of the top performing sectors of 2020. The performance of healthcare was tremendous and will continue to grow in 2021.

**Table :1** Portfolio Characteristics of Nifty Health Care Sector

Methodology	Periodic clapped free-float
No. of Constituents	20
Launch date	November 18, 2020
Base date	April 1, 2005
Base value	1000

Calculation frequency	Real-time
Index rebalancing	Semi-annually

Source: NSE India

*Significance of the study*

The main purpose of this study is to predict how the return behaviour of sectoral indices of nifty health care functioned at the time of pandemic and pre pandemic.

- The stock prices were highly volatile at the time of pandemic and it drastically altered the economic cycle and the expected return of the investors. Health care is the only sector functioning 24\*7 irrespective of pandemic condition.
- The study has focused on nifty health care total return index for the year 2019 and 2020. It helps in understanding the performance of the nifty health care sector return aspects and how the behaviour of return during pandemic and pre-pandemic.

*Objectives of the Study*

- To study the performance and return behaviour of nifty health care sector during 2019 & 2020.
- To analyse the mean return of nifty health care sector for the year 2019 & 2020.
- To measure the central tendency of the total return index of nifty health care sector for the period 2019 & 2020.

**Review of Literature**

P. Bhanu Sireesha and T. Haripriya (2021), impact of covid-19 pandemic on the Indian stock market: sectoral indices wise analysis. This article examines the impact of pandemic individually on all the 14 sectoral indices of NSE. This paper has used the non-parametric test, Wilcoxon matched pairs test, on each of the sectoral indices in 3 event windows of short-term, medium-term and long-term. Positive impact was observed in Pharma, Health Care and FMCG sectors and negative impact was observed in all other sectors.

Mittal, Shivam and Sharma, Dipasha (2021), The Impact of COVID-19 on Stock Returns of the Indian Healthcare and Pharmaceutical Sector. The article studied how the pandemic has impacted the healthcare and pharma stocks. It analyzed the daily closing prices of sector indexes for 233 days ranging from 15 May 2019 to 24 April 2020. It compared different sectors with our test sector, on the basis of different criteria. This paper studied how the outbreak of COVID-19 impacted the stock returns of healthcare sector.

Rashmi Chaudhary, Priti Bakhshi and Hemendra Gupta (2020), The performance of the Indian stock market during COVID-19. This paper studies the impact of COVID - 19 on eight sectors such as Auto, Bankex, Consumer Durables, Capital Goods, Fast Moving Consumer Goods, Health Care, Information Technology, and Realty of India Indian stock market of BSE 500 and BSE Sensex. This paper has used multiple measures namely standard deviation, skewness, and kurtosis of index. This paper has found out that Health care was only one of the sectors that could sustain its positive return during COVID-19 period.

Yashraj Varma , Renuka Venkataramani , Parthajit Kayal and Moinak Maiti (2021), Short-Term Impact of COVID-19 on Indian Stock Market. This article studied the short-term impact of covid -19 on the stock market. This paper has used three models namely constant return model, market model, and market-adjusted model. This paper has found out that all the sectors are temporarily hit and financial sector was worst hit.

**Research Methodology**

The present study focuses on the performance and return behavior measure of Nifty health care sector during pandemic. The study has incorporated secondary data for statistical analysis. The parameter for this study is total return index nifty health care sector before and after pandemic i.e., for the period January 1<sup>st</sup> 2019 to December 31<sup>st</sup> 2019 and January 1<sup>st</sup> 2020 to December 31<sup>st</sup> 2020. The output for this paper is obtained from Excel Data Analysis tool. Statistics used for measure is Descriptive Statistics.

**Table 2** Data Analysis and Inference  
**Actual Data of Nifty Health Care Total Return Index for the year 2019 & 2020.**

Months	Return in No. of Days in a Month		Return in No. of Days in a Month (2020)	
	Total Return Index 2019	(2019)	Total Return Index 2020	
January	135192.98	23	130421.94	23
February	115680.86	20	114993.97	20
March	112257.86	19	107713.66	21
April	114369.24	19	109963.89	18

May	123783.04	22	120226.11	19
June	101286.14	19	147338.71	22
July	122424.84	23	157759.02	23
August	104804.25	20	161842.66	21
September	101532.46	19	171143.32	22
October	103187.53	20	167604.39	21
November	109436.9	20	158702.91	20
December	115852.28	21	186922.35	22

Source: NSE India

The above table shows the total return index of Nifty health care sector for the year 2019 before pandemic and 2020 during pandemic. Total return index of health care sector is computed keeping 1000 as the base value. It is known from the data that starting from January to May there is a declining trend in health care sector in 2020 at the time of pandemic. From June to December there is a reversal trend.

Table 3. Comparative mean value for the year 2019 & 2020

Months	2019 Average	2020 Average
January	5877.96	5670.52
February	5784.04	5749.70
March	5908.31	5129.22
April	6019.43	6109.11
May	5626.50	6327.69
June	5330.85	6697.21
July	5322.82	6859.09
August	5240.21	7706.79
September	5343.81	7779.24
October	5159.38	7981.16
November	5471.85	7935.15
December	5516.78	8496.47
<b>Total</b>	<b>66601.93</b>	<b>82441.35</b>
<b>Average of average</b>	<b>5550.16</b>	<b>6870.11</b>

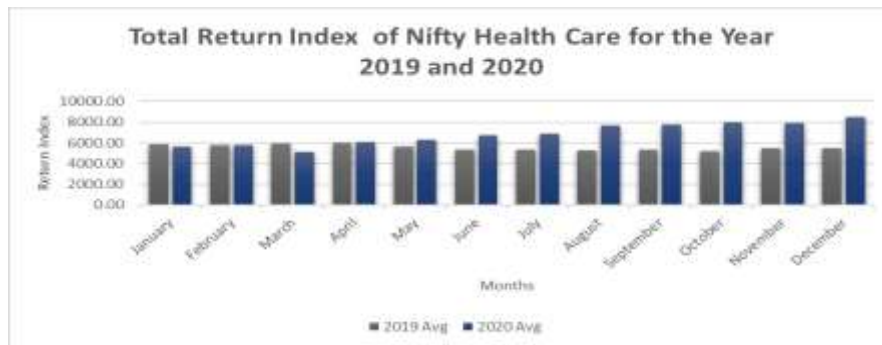


Fig:1 Comparative mean of total return index for the year 2019 & 2020

The above chart shows the average of total return index of Nifty health care sector for the year 2019 before pandemic and 2020 during pandemic. It is clear from the chart that starting from January to May there is a declining trend in health care sector in 2020 and from June to December the total return index drastically increased at the time of pandemic. The major reason for sudden increase and good performance in health care sector is because it operated 24\*7 service.

Table4. Descriptive Measures

	Total Return Index 2019	Total Return Index 2020
Mean	5550.16	6870.11
Standard Error	83.25	315.85
Median	5494.31	6778.15
Standard Deviation	288.39	1094.15

Sample Variance	83168.56	1197158.00
Kurtosis	-1.32	-1.37
Skewness	0.35	-0.07
Range	860.06	3367.25
Minimum	5159.38	5129.22
Maximum	6019.43	8496.47
Sum	66601.93	82441.35
Count	12.00	12.00

- The above table have measured the central tendency of the total return index of nifty health care sector for the period 2019 & 2020 for 12-month period.
- It is inferred that the mean value of total return index for 2019 is 5550.16 and for 2020 it is 6870.11. It is clear that there is mean increase in the total return index of nifty health care sector for the year 2020.
- It is also found that the deviation is more in the year 2020 due to the prevailing pandemic condition.
- The minimum return value in 2019 is 5159.38 and the highest is 6019.43. The range value for 2019 is 860.06 and for 2020 the range value is 3367.25 with 5129.22 as the minimum value and 8496.47 as the maximum value. It is clear that the price volatility is high in the year 2020 due to pandemic condition.

### Findings

- It is clear from the above study that the total return index of nifty health care sector performance is attainable at the time of pandemic. The operation and functioning of health care sector are 24\*7, that made the return index higher even at economic distress.
- Investors who had invested in health care sector would have received better and reasonable dividend.
- It is also found that excess price volatility in 2020, hence the return mean difference was recorded as 3367.25 with 5129.22 as the minimum value and 8496.47 as the maximum value.
- This paper has strategically analysed the performance and return behaviour of nifty health care sector for the period 2019 & 2020.

### Conclusion

The study is a typical review of the performance and total return behaviour of nifty health care sector during pandemic. Nifty 50 is professionally maintained stock exchange by IISL. The negative change in index eventually affect the market at large. This study specifically taken into account health care sector performance. The market movements clearly portraits that the performance of health care sector is not affected drastically due to pandemic condition. The performance and total return behaviour of Nifty health care sector is attainable and investor returns are not triggered as the performance of the sector is stable. It is found from the study that excess price volatility in 2020, hence the return mean difference was recorded as 3367.25 with 5129.22 as the minimum value and 8496.47 as the maximum value. Health sector is not affected during covid pandemic because of 24\*7 hours of operation.

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