

A Comparative Study Between Nifty-50 Index With Nifty IT Index And Nifty Pharma Index After Post COVID-19 With Special Reference To NSE

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ABSTRACT

The Nifty -50 is well diversified 50 stock indices, which encompasses all the essential industries of Indian economy and acts as a flagship of India's economic growth. In this proposed research paper, researcher mainly focused on National Stock Exchange [NSE]. The Nifty-IT and Nifty-Pharma index is the part of Nifty-50 index, When IT and Pharma Sectors are bullish or bearish it contributes a lot in Nifty-50 index. The main objective of this proposed research paper is to analysis between Nifty-IT index and Nifty-Pharma index with Nifty-50 index. After Post COVID-19 this is to analyzed empirically since the period of April 01st 2020 – January 1st 2024 data (2020-2024) for Nifty-50 index, Nifty-IT index and Nifty-Pharma index has been considered for analysis. For this research paper, Two -Way ANOVA test has been applied to analysis the comparisons of the means of various groups by means of certain estimation procedures. By using both Two-Way ANOVA and T-It has been observed that there was a Positive Correlation when it was tested between Nifty IT index, Nifty-Pharma index and Nifty-50 index. In this paper the data has been collected from the secondary sources.

Keywords: Nifty-50 Index, Nifty-IT, Nifty-Pharma, National Stock Exchange, COVID-19

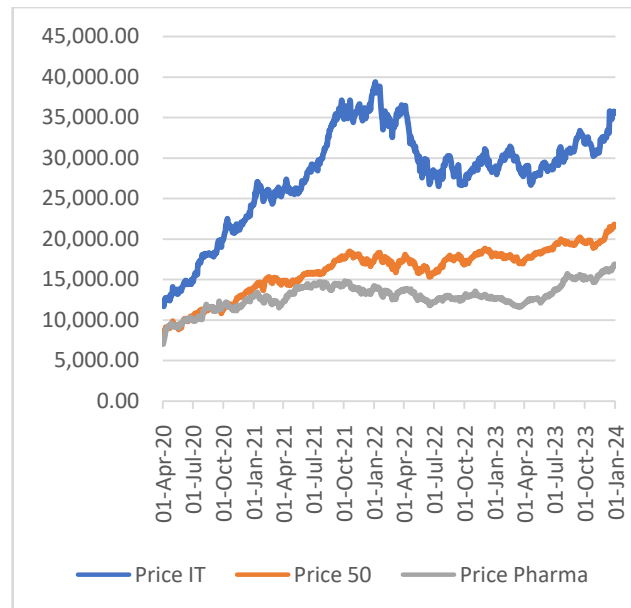
INTRODUCTION

Stock market where investors can buy and sell particular share to gain profit. Stocks are very volatile due to uncertainty of policies, inflation, RBI rate interest, Global market uncertainty. All this affect the Indian economy as well as stock market. In stock market the main aim to cover Nifty-50 index as compare to Nifty-IT index and Nifty-Pharma index.

Nifty -50 index where all large cap sectors reside like IT, Pharma, Banking, Auto, Metals etc.

Covid -19 shook's Indian stock market very badly. After covid pandemic nifty 50 index down From 11,132.75 on March 2, 2020, the index plummeted to a low of 7,511 a few days later. Nifty -50 index touch new 12 years low during march-april 2020 after 2008 financial crisis. But After covid-19 some sectors like Nifty-IT index and Nifty-Pharma index support a lot to Nifty-50 index. When covid -19 pandemic shook's the world Nifty -50 index had grown 55.6 percent over a 3 years period. After the pandemic of Covid-19, Nifty-IT index performed very well as all administration and academic were held online. Similarly, Nifty-Pharma index performed very well because of invention of COVID vaccine.

Even though the situation has been stabilized well after COVID-19 pandemic, there is an ambiguity to investors to buy indices which make them a good return. In this background an attempt to made comparative study of Nifty-50 index with Nifty-IT index and Nifty-Pharma index.



Review of Literature (ROL)

Study done by Zara and LamjedBen(2022), it had been found that Nifty -50 is considered as an unwilling, unstable and intensive market. The prediction of stock price has been challenging task. The result of research paper is that the errors in the LSTM algorithm model are found to be lower compared to RNN and CNN model.

In a study by Alkhosy and Saied (2018), the RWH maintains the presumption that the stock price is basically stockstic. Therefore, it's impossible to predict the future stock price, and one can try as much as he or she wants.

Study of Aziz and Ahmad(2018), looked at the relationship between minimum daily returns and future monthly returns during the year 1999-2014 in Indian stock market. Thus , share scalping can give the appropriate bounce with particular time duration.

Conclusion drawn by MalvikaChhatwani(2020), examined the impact on price and volume traded of stocks being included and excluded from nifty-50 index . It generates positive returns after index inclusion and negative returns after index exclusion.

Research Objective

Above proposed research paper has these following objectives:-

1. To compare and analysis of Nifty-IT index and Nifty-Pharma Index with Nifty-50 index.
2. Correlation between Nifty-IT index and Nifty-Pharma index with Nifty-50 Index.
3. To examine trend values and forecast.
4. To determinethe results the efficiency of each model evaluation metrics and features.

Hypothesis

H_0 : There is no significant relationship between Nifty Pharma and Nifty 50 index

H_1 : Correlation between Nifty Pharma with Nifty 50 index.

Research Design

An exploratory proposed research design needed for the study.

- **Sample Design:** Nifty-50 Index, Nifty-IT index, Nifty- Pharma Index.
- **Sample Duration:** 1stApril, 2020 to 1st January, 2024.
- **Sample Collection Source:** Researcher has collected the data from secondary data source i.e.www.in.investing.com and www.nseindia.com.
- **ResearchAnalysis tools:** SPSS, MS-Excel 2019. In this researcher has adoptedTwo- Way ANOVA, T-test and Correlation.

Data Analysis and Interpretation

- In this analysis researcher has compared Nifty 50 and Nifty Pharma with T- test sample in SPSS.

Nifty 50 index and Nifty Pharma index

H₀: There is no significant relationship between Nifty Pharma and Nifty 50 index

H₁: Correlation between Nifty Pharma with Nifty 50 index.

	Group	N	Mean	Std. Deviation	Std. Error Mean
Price	1.00(Nifty 50)	930	16135.9942	2959.65710	97.05098
Price	2.00(Pharma)	930	12953.8525	1539.50393	50.48232

Independent Samples Test

	F	Sig.	t	Df	Sig.(2-Tailed)	Mean Difference	Std. Error difference
Equal variances when assumed	326.530	<.001	29.088	1858	<.001	3182.14167	109.39542
Equal variances when not assumed			29.088	1397.426	<.001	3182.14167	109.39542

The result will be rounded up as .001 which will be greater than .000 in the above table.

Correlation between the variables is significant as $p < .001$

As the value of $p < .001$ which is significant and because of a built in function of SPSS, researcher also found value .000 which also mean that is significant.

• **In this analysis the proposed research compare Nifty 50 , Nifty Pharma and Nifty IT with 2-way ANOVA Test in SPSS.**

H₀: There is no significant relationship between Nifty Pharma ,Nifty IT and Nifty 50 index

H₁: There is Negative Correlation between Nifty Pharma and Nifty IT with Nifty 50 index.

ANOVA: Two-Factor With Replication						
SUMMARY	Price	Volume	Percentage	Total		
IT						
Count	2790	2790	2790	8370		
Sum	53078561.2	414340.902	3.0144	53492905.12		
Average	19024.57391	148.5092839	0.00108043	6391.02809		
Variance	57988577.12	41240.52038	0.000151088	99155101.69		
Total						
Count	2790	2790	2790			
Sum	53078561.2	414340.902	3.0144			
Average	19024.57391	148.5092839	0.00108043			
Variance	57988577.12	41240.52038	0.000151088			
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Sample	0	0	65535	65535	#NUM!	#NUM!
Columns	6.67984E+11	2	3.33992E+11	17266.5686	0	2.996805
Interaction	-6.10352E-05	0	65535	65535	#NUM!	#NUM!

Within	1.61845E+1 1	8367	19343272.5 5			
Total	8.29829E+1 1	8369				

For this proposed research Two way ANOVA test has been applied for comparing mean of different groups by some estimation techniques. By this ANOVA test ,Whether to or not the null hypothesis can be rejected or accepted not during hypothesis testing can be measured . Since the result is positive DF(2) Hence, Hypothesis can be framed further.

CONCLUSION

It has been concluded from the proposed research that when it comes to the return, two sectors of Nifty IT and pharmaceutical are performing well than the market return. Both the sectors are having bulky returns. Nifty future is derivative contracts that allow investors either to purchase or sell an index of the Nifty 50 at a specific price and date in the upcoming times.

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