

IMPACT OF COVID-19 PANDEMIC CONDITION ON SELECTED STOCKS OF INDIAN PHARMA INDUSTRY

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ABSTRACT

The pharmaceutical industry has been on the rise since the start of the Covid-19 pandemic, especially in India, the largest producer of generic drugs globally. With a market size of \$55 billion during the beginning of 2020, it has been surging in India, exporting Hydroxychloroquine to the world, esp. to the US, UK, Canada, and the Middle-East.

The objective of the study was to identify the movement before and after of Janata curfew with selected 10 pharma company stock movement.

This research work is focusing on Indian pharmaceutical industries & top 10 stocks return during the pandemic covid-19. In this research the data has been collected through secondary basis, all the prices and returns of shares has been collected through www.nseindia.com. With the help of price & returns one can easily identify the situation of pharmaceutical industries in India. The main objectives of this project report is to specify how much (%) return the investors should gain in how many time period from pharmaceutical shares.

Keywords: Pharma Industry; Stock Price; Janata curfew, Stock Market.

INTRODUCTION

A stock market, equity market or share market is the aggregation of buyers and sellers of stocks (also called shares), which represent ownership claims on businesses; also these may include securities listed on a public stock exchange, as well as stock that is only traded privately, such as shares of private companies which are sold to investors through equity crowd funding platforms. One country's stock market connected with whole world, because each & every trades with other countries. It also put positive impact on foreign exchange investment. So that if there are some issues in import-export then definitely effects both countries stock market.

A plot of land which the current BSE building stands acquired in 1928 and completely occupied in 1930. Indian stock market has seen many turbulent and as well as golden times over the 150 years of period time. The National Stock Exchange of India Limited is the leading stock exchange of India, located in Mumbai. The NSE was established in 1992 as the first dematerialized electronic exchange in the country. Under the SEBI Act, 1992, the SEBI has been empowered to conduct inspection of stock exchanges. The SEBI has been inspecting the stock exchanges once every year since 1995-96.

India is the largest provider of generic drugs globally. Indian pharmaceutical sector industry supplies over 50 per cent of global demand for various vaccines, 40 per cent of generic demand in the US and 25 per cent of all medicine in UK. India enjoys an important position in the global pharmaceuticals sector.

In the last two decades, Indian pharmaceutical industry has expanded significantly. It has more than 250 larger units that rules over the 70 % of the market and rest 30% of the market taken by top ten companies. The Indian pharmaceutical industry produces around 400 bulk drugs and out of this, 300 bulk drugs are produced domestically. It is a highly fragmented industry consisting of more than 20,000 registered units and around 8,000 small scale units.

List of the 10 Pharma Company Sun Pharmaceutical, Dr. Reddy's Laboratories, Divi's Laboratories, Cipla, Aurobindo Pharma, Torrent Pharmaceuticals, Lupin Ltd, Zydus Cadila Healthcare, Abbott India, Alkem Laboratories.

LITERATURE REVIEW

MR. Ravi & Miss. Sunita (2009), Performance of the Indian Pharmaceutical Industry in Post- TRIPS Period: A Firm Level Analysis The pharmaceutical industry is an exciting industry worldwide with growth rate of 8% and a turnover of around US\$ 650 billion. In terms of value, the major constituents are the United States (US) (48% share), European Union (EU) (28%share) and Japan with a share of 12%, and the rest of the world, including

India, contributes around 20%. However, in terms of volume, the share of the rest of the world is approximately three times larger. An example in this regard, is India, which ranks 4th in terms of volume with a share of 8% in the world pharmaceutical market and only 13th in terms of value. India is fast emerging as a power house of API production. It also provides healthy employment to young Indians. The growth was remarkable for the period 2000-08. R& D Expenses have increased at a higher rate in the Post-TRIPs period growing at a rate of 5.07 against 3.88 in Pre-TRIPs period.

Reji K Joseph (2008), The R&D Scenario in Indian Pharmaceutical Industries. A set of policy reforms were introduced in the Indian pharmaceutical sector since mid-1990s aimed at incentivizing the private sector R&D. Patent reforms was the most significant policy reform. An implicit assumption that the Indian pharmaceutical firms have become capable of developing new drugs underlined these reforms and it was expected that both the Indian firms and MNCs would invest in R&D on new drugs not only for diseases that are prevalent globally but also for diseases that are specific to India and other tropical countries. This discussion paper provides an analysis of the impact of these reforms on pharmaceutical R&D in India. It looks into the context in which the reforms were introduced, the nature and trends of R&D efforts and emerging R&D strategies.

Mr. Sunil Mani (2014), The sectorial system of innovation of Indian pharmaceutical industry, India's innovation system is dominated by the pharmaceutical industry. The industry has achieved self-sufficiency in most drugs, although a number of active pharmaceutical ingredients are still being imported. It is very well understood that the old patents regime has enabled the pharmaceutical industry to enhance its domestic technological capability. The clinical research industry in the country is currently valued at \$100 million (83 million) and is almost doubling each year, reflecting the shifting focus of the pharmaceutical outsourcing industry to Asia. The findings are published in a recent report analysing the clinical research industry and 33 leading contract research organizations (CROs) in India, put together by US pharmaceutical consulting firm, Proximate.

Ms. Kirti Sharda (2015), Talent Management Systems in Indian Pharmaceutical Firms: Exploring an Emerging Typology. The Indian pharmaceutical industry enjoys a leading position in the global generic pharmaceutical space. A unique combination of opportunities and constraints characterize the industry. It has achieved global excellence standards in mass production of high-quality branded generics driven by world-class capabilities in formulations. These have been created by and sustained with continued investments in infrastructure and research and development by industry leaders. At the same time, the industry is highly fragmented with large number of small and medium-sized players.

Ms. A Geethalakshmi & Dr. K Joshi (2016), Financial Performance of Select Pharmaceutical Companies in India using DuPont Analysis. This study attempts basically to measure the financial performance of the Pharmaceutical companies taking Cilpa, Dr. Reddy's Laboratories, for the period 2006-2007 to 2015-2016. In conclusion, ROE & ROI is the most comprehensive measure of profitability of a firm. It considers the operating and investing decision made as well as the financing and tax-related decisions.

RESEARCH METHODOLOGY

Research methodology was selected based on nature of data, high volume trading data based we select 10 stocks of Pharmaceutical industry, A descriptive research design is applied to analysed impact of Janta curfew on selected stocks for before and after 7days, 14days, 21days, 3months, 6months. A t-test study was applied for type of inferential statistical analysis to determine if there is a significant difference between the means of two groups, which may be related in certain features. that states objectives of research project and provides the guidelines what is to be done to realize those objectives. It is, in other words, a master plan for executing a research project.

RESEARCH DESIGN

- Sample size: The number of samples that I have collected are 10 Pharma Company Market Price of on Janta curfew before and after 7days, 14days, 21days, 3months, 6months.
- Sampling unit: Top 10 market capitalization Pharma company.
- Research design: Descriptive research design.

OBJECTIVES OF THE STUDY

To determine awareness of consumer regarding insurance policy and the number of consumers who have actually invested in Indian pharma industries

To know the satisfaction level of consumer with respect to private and public insurers.

To identify the factors that influence the customers to purchase & sell the pharmaceutical stocks.

To examine the attributes that consumer prefers while purchasing stocks of pharmaceutical companies.

To recognize banking awareness regarding merger and acquisitions in general.

DATA ANALYSIS AND INTERPRETATION

	Lupin	DR. Reddy	Divis Labs	Cadila health	Strides pharma	Natco Pharma	Torrent Pharma	Lauras Labs	Ipca Labs	Ajanta Pharma
27-12-2019	770	2897	1830	255	367	576	1863	357	1142	958
06-02-2020	706	3158	2020	273	494	643	2001	437	1240	1303
19-02-2020	709	3278	2185	275	488	644	2242	438	1402	1314
02-03-2020	629	2905	2109	250	438	608	2127	416	1434	1394
12-03-2020	597	2850	1912	236	401	546	1987	365	1308	1283
23-03-2020	592	2768	1821	280	274	473	1796	321	1367	1040
01-04-2020	580	3095	1877	263	326	496	1959	323	1397	1366
16-04-2020	825	3860	2393	343	346	617	2334	399	1515	1361
27-04-2020	898	4002	2425	333	384	630	2470	517	1669	1506
11-05-2020	850	3862	2330	328	416	614	2495	430	1554	1480
10-06-2020	928	4112	2393	369	411	630	2473	482	1596	1497

Hypothesis 1

Ho: There is no major difference in return of 10 selected company before 7 Days Return of 23 march and after 7 Days Return of "23 march"

H1: There is major difference in return of 10 selected company before 7 Days Return of 23 march and after 7 Days Return of "23 march"

	Lupin	DR .reddy	Divis Labs	Cadila health	Strides pharma	Natco Pharma	Torrent Pharma	Lauras Labs	Ipca Labs	Ajanta Pharma
(-7 Days) 12-03-2020	597	2850	1912	236	401	546	1987	365	1308	1283
(+7 Days) 01-04-2020	580	3095	1877	263	326	496	1959	323	1397	1366

T-Test 1		Day-7
t-Test: Paired Two Sample for Means		
	<i>12-03-2020 (Variable 1)</i>	<i>01-04-2020 (Variable 2)</i>
Mean	-5.773113962	6.905660691
Variance	185.0878601	127.0480742
Observations	10	10
Pearson Correlation	-0.754327446	
Hypothesized Mean Difference	0	
Df	9	
t Stat	-1.719826081	Calculated Value
P(T<=t) one-tail	0.059789063	
t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.119578126	
t Critical two-tail	2.262157163	Table Value

Tabulated value is greater than calculated value so H0 is accepted, Hence, there is no major difference in return of 10 selected company before 7 Days Return of 23 march and after 7 Days Return of "23 march".

Hypothesis 2

Ho: There is no major difference in return of 10 selected company before 14 Days Return of 23 march and after 14 Days Return of "23 march"

H1: There is major difference in return of 10 selected company before 14 Days Return of 23 march and after 14 Days Return of "23 march"

	Lupin	DR .reddy	Divis Labs	Cadila health	Strides pharma	Natco Pharma	Torrent Pharma	Lauras Labs	Ipca Labs	Ajanta Pharma
(-14 Days) 02-03-2020	629	2905	2109	250	438	608	2127	416	1434	1394
(+14 Days) 16-04-2020	825	3860	2393	343	346	617	2334	399	1515	1361
T-Test 2							Day-14			
t-Test: Paired Two Sample for Means										
	<i>02-03-2020 (Variable 1)</i>					<i>16-04-2020 (Variable 2)</i>				
Mean	-11.83842389					22.92340354				
Variance	202.0280391					211.2612628				
Observations	10					10				
Pearson Correlation	0.146226048									
Hypothesized Mean Difference	0									
Df	9									
t Stat	-5.851871552					Calculated Value				
P(T<=t) one-tail	0.000121595									
t Critical one-tail	1.833112933									
P(T<=t) two-tail	0.000243191									
t Critical two-tail	2.262157163					Table Value				

Calculated value is greater than Tabulated value so H1 is accepted. Hence, there is major difference in return of selected company before 14 Days Return of 23 march and after 14 Days Return of "23 march".

Hypothesis 3

Ho: There is no major difference in return of 10 selected company before 21 Days Return of 23 march and after 21 Days Return of "23 march"

H1: There is major difference in return of 10 selected company before 21 Days Return of 23 march and after 21 Days Return of "23 march"

	Lupin	DR .reddy	Divis Labs	Cadila health	Strides pharma	Natco Pharma	Torrent Pharma	Lauras Labs	Ipca Labs	Ajanta Pharma
(-21 Days) 19-02-2020	709	3278	2185	275	488	644	2242	438	1402	1314
(+21 Days) 27-04-2020	898	4002	2425	333	384	630	2470	517	1669	1506
T-Test 3							Day-21			
t-Test: Paired Two Sample for Means										
	<i>19-02-2020 (Variable 1)</i>					<i>27-04-2020 (Variable 2)</i>				
Mean	-16.09733013					35.43320781				
Variance	186.3786998					311.8580235				
Observations	10					10				
Pearson Correlation	-0.686046871									
Hypothesized Mean Difference	0									
Df	9									
t Stat	-5.659509754					Calculated Value				
P(T<=t) one-tail	0.000154914									
t Critical one-tail	1.833112933									
P(T<=t) two-tail	0.000309829									
t Critical two-tail	2.262157163					Table Value				

Calculated value is greater than Tabulated value so H1 is accepted. Hence, there is major difference in return of selected company before 21 Days Return of 23 march and after 21 Days Return of "23 march".

Hypothesis 4

Ho: There is no major difference in return of 10 selected company before 30 Days Return of 23 march and after 30 Days Return of "23 march".

H1: There is major difference in return of 10 selected company before 30 Days Return of 23 march and after 30 Days Return of "23 march".

	Lupin	DR .reddy	Divis Labs	Cadila health	Strides pharma	Natco Pharma	Torrent Pharma	Lauras Labs	Ipcas Labs	Ajanta Pharma
(-30 Days) 06-02-2020	706	3158	2020	273	494	643	2001	437	1240	1303
(+30 Days) 11-05-2020	850	3862	2330	328	416	614	2495	430	1554	1480
T-Test 4							Day-30			
t-Test: Paired Two Sample for Means										
	<i>06-02-2020 (Variable 1)</i>					<i>11-05-2020 (Variable 2)</i>				
Mean	-12.73148332					30.91851401				
Variance	244.5805261					256.4197383				
Observations	10					10				
Pearson Correlation	-0.802544116									
Hypothesized Mean Difference	0									
Df	9									
t Stat	-4.593558935					Calculated Value				
P(T<=t) one-tail	0.000651205									
t Critical one-tail	1.833112933									
P(T<=t) two-tail	0.001302411									
t Critical two-tail	2.262157163					Table Value				

Calculated value is greater than Tabulated value so H1 is accepted. Hence, there is major difference in return of selected company before 30 Days Return of 23 march and after 30 Days Return of "23 march".

Hypothesis 5

Ho: There is no major difference in return of 10 selected company before 60 Days Return of 23 march and after 60 Days Return of "23 march".

H1: There is major difference in return of 10 selected company before 60 Days Return of 23 march and after 60 Days Return of "23 march".

	Lupin	DR .reddy	Divis Labs	Cadila health	Strides pharma	Natco Pharma	Torrent Pharma	Lauras Labs	Ipcas Labs	Ajanta Pharma
(-60 Days) 27-12-2019	770	2897	1830	255	367	576	1863	357	1142	958
(+60 Days) 10-06-2020	928	4112	2393	369	411	630	2473	482	1596	1497
T-Test 5							Day-60			
t-Test: Paired Two Sample for Means										
	<i>27-12-2019 (Variable 1)</i>					<i>10-06-2020 (Variable 2)</i>				
Mean	-2.012004369					36.73855808				
Variance	191.9632084					302.9850641				
Observations	10					10				
Pearson Correlation	-0.571268256									
Hypothesized Mean Difference	0									
Df	9									
t Stat	-4.414627784					Calculated Value				
P(T<=t) one-tail	0.000842125									

t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.00168425	
t Critical two-tail	2.262157163	Table Value

Calculated value is greater than Tabulated value so H1 is accepted. Hence, there is major difference in return of selected company before 60 Days Return of 23 march and after 60 Days Return of "23 march".

HYPOTHESIS AND OTHER FINDINGS: -

The moment of lupin share's price was moderate or average like normal, but after curfew the demand of shares goes high, so the price of shares goes up rapidly. The average return on this particular share is around 65% during lockdown in India. The moment of DR. Reddy share's price was average like normal, but after curfew the price of shares goes high rapidly. The average return on this particular share is around 75% during lockdown in India.

The moment of Divis Labs share's price was average or moderate, but after curfew the price of shares goes high rapidly. The average return on this particular share is around 50% during lockdown in India. the moment of Cadila Healthcare share's price was average, but after curfew the price of shares goes high rapidly. During pandemic condition the company gain handsome amount of profit & also provide enough medicines. The average return on this particular share is around 45% during lockdown in India. the moment of Strides pharma share's price was average or moderate, but after curfew the price of shares goes high rapidly. The company was able to supply enough medicines in rural area during lockdown. The average return on this particular share is around 50% during lockdown in India. the moment of Natco pharma share's price was moderate or simple moment, but after curfew the price of shares goes high rapidly increasing day by day. The average return on this particular share is around 55% during lockdown in India. the moment of Torrent pharma share's price was average, but after curfew the price of shares goes high rapidly. The company was able to supply enough medicines in rural area during lockdown. The average return on this particular share is around 40% during lockdown in India. the moment of Laurus labs' share price was moderate or simple moment, but after curfew the price of shares goes high rapidly increasing day by day. The average return on this particular share is around 70% during lockdown in India. the moment of Ipca Labs' share price was average, but after curfew the price of shares goes high rapidly. During pandemic condition the company gain handsome amount of profit & also provide enough medicines. The average return on this particular share is around 45% during lockdown in India. The moment of Ajanta pharma's share price was average, but after curfew the price of shares goes high rapidly. The company was able to supply enough medicines in rural area during lockdown. The average return on this particular share is around 65% during lockdown in India.

CONCLUSION

The Indian pharmaceuticals market has characteristics that make it unique. First, branded generics dominate, making up for 70 to 80 per cent of the retail market. Second, local players have enjoyed a dominant position driven by formulation development capabilities and early investments. Third, price levels are low, driven by intense competition. While India ranks tenth globally in terms of value, it is ranked third in volumes. during this pandemic condition the Indian pharmaceutical industries provide all type of necessary medicines, medical tools, equipment's, also supply necessary medicines to other countries in the world.

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