

EFFECT OF COVID-19 ON THE SHARE MARKET AND INDUSTRY – A SPECIAL REFERENCE TO INDIAN STEEL INDUSTRY

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Abstract

Indian economy is the top 5th largest economy in the world and it called a mixed developing economy. From 2016 Indian share market and industry were affected by so many factors, in 2016 demonetization made short term impact, in 2017 GST made short term impact, in 2018 budget boost the share market and some of the industry, in 2019 and 2020 COVID -19 impact is going on. The whole world is witnessing the negative impact of the virus. The resultant lockdown led to fallen economic activities. This adversely affected the share market as the companies faced stoppage in production activities, layoffs for the employees due to the inability to pay the remunerations and bear the expenditures. The economic turmoil sharp increase in the prices of gold. This shook the stock market from its roots.

In this paper, an investigation is done on COVID -19 impacted on the ups and downs of the Indian share market (Steel Sector), and the Indian steel industry. To study this twelve months share price and industry production (Crude steel, finished steel) and Consumption are considered. Three objectives and six hypothesis are framed to find the impact of COVID-19 on the share market and steel industry. Descriptive and Inferential statistics are used to analyze the data. To test the impact of the Covid-19 Paired t-test is used. It also finds how a panic situation will impact the stock market and investor perception. This study is very important to improve the economy of the country because the stock market and steel industry are a very important component for the growth of the Indian economy. The steel industry contributes 2% of Indian GDP and Indian Stock market Capitalization is 75% of GDP.

Keywords: Stock Market, Steel Industry, Share Price, Production, Consumption

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INTRODUCTION :

Indian economy is the top 5th largest economy in the world and it is called a mixed developing economy. From 2016 Indian share market and industry were affected by so many factors, in 2016 demonetization made short term impact, in 2017 GST made short term impact, in 2018 budget boost the share market and some of the industry, in 2019 and 2020 COVID -19 impact is going on.

A disease called COVID-19 has spread all over the world since 2019. COVID-19 has a short-run negative impact on the stock market and the Indian steel industry. As of August 2020, there are approximately 20, 88,612 reported COVID cases around India. This may be the never-ending effect on public health, share market, and steel industry. However, the actual direct effects of a COVID-19 are not always what moves the market. The share market always moves with the speculation. This pandemic causes a complete shutdown and it forces residents to stay inside the home and it leads to work from home and stops working.

The whole world is witnessing the negative impact of the virus. The resultant lockdown led to fallen economic activities. This adversely affected the share market as the companies faced stoppage in production activities, layoffs for the employees due to the inability to pay the remunerations and bear the expenditures. The economic turmoil sharp increase in the prices of gold. This shook the stock market from its roots.

The cross border activities are also ceased which led to restrictions in the import or export of steel. The big infrastructure projects are halted, where steel is used as a major building material. Due to low incomes during the lockdown, the domestic purchase of steel also reduced.

Literature Review

He has expressed that this examination explores the Effect of financial exchange on monetary development of India. ADF Unit Root test result demonstrates all factors to be coordinated of request one, that is they got fixed in the wake of taking first contrast. Johansen Co-integration test shows the nearness of since quite a while ago run relationship among the factors. Since quite a while ago run estimation result demonstrated a positive and critical connection between speculation, work and training with Gross domestic product, while securities exchange and Gross domestic product were seen as adversely related. Vector Blunder Remedy Model (VECM) short run elements indicated financial exchange to have a short run positive effect on monetary development of India. Motivation Reaction Capacity (IRF) shows the reaction of Gross domestic product to a stun in financial exchange and loan fee to be negative, while the reaction to stuns in labor, venture and instruction was certain. Strategy suggestions remembers putting for place measures planned for decreasing stuns in the financial exchange and causing it to positively affect the monetary development of India.

This paper assesses the transient effect of the crown infection episode on 21 driving securities exchange records in major influenced nations including Japan, Korea, Singapore, the USA, Germany, Italy, and the UK and so on. The results of irresistible ailment are impressive and have been legitimately influencing financial exchanges around the world. Utilizing an occasion study strategy, our outcomes demonstrate that the financial exchanges in major influenced nations and territories fell rapidly after the infection flare-up. Nations in Asia experienced more negative anomalous returns when contrasted with different nations. Further board fixed impact relapses additionally bolster the unfavorable impact of COVID-19 affirmed cases on stock files irregular returns through a successful channel by including up speculators' skeptical assumption future returns and fears of vulnerabilities.

He opined that the assumption in the securities exchanges over the world is melancholy. This is reflected in the continuous accidents in the offer markets in all piece of the world. Money related markets in India are seeing sharp unpredictability at present because of the aftermath in worldwide markets. Due to COVID-19, nobody knows when the economy will be in the groove again. It is stupid to expect a brisk monetary bounce back from the current COVID-19 impact. The recuperation will be rely upon how rapidly the pandemic is managed, and the approach decisions which the administrations took to help their economies. When this pandemic is done with commonality coming back to business and economy, the financial exchange will begin moving a positive way, and as saw previously, recuperation would be quicker than anticipated.

She has expressed that lone industry with positive total return in this period is the Pharmaceutical business. The Clever Pharma list had an arrival of 22.6% in April 2020, while the more extensive Nifty50 is up just by 6%. Because of the part's relative strength to Covid-19 disturbance, a positive position can be seen on Indian Pharmaceutical Stocks. Banking Segment, Monetary Administrations, Realty, Retail, and Vehicles are at the

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front among the areas that were generally influenced. The market immediately started to respond to worries about the conceivable financial outcomes of the COVID-19. We watched some huge value moves in the long stretch of Spring when speculators began to get anxious about expected intensification of the COVID-19 stun through budgetary channels.

According to this article Residential steel players need to equip to raise creation by improving productivity and lessening cost to take advantage of the universal markets, as China has become a net merchant because of the COVID-19 effect. The fall in local interest for steel is a brief wonder and will get once the administration offices begin offering significant framework ventures. The interest from China, Southeast Asian nations and Europe is additionally expanding as their exercises are likewise affected. Alongside that various framework ventures scheduled to be offered by different government organizations, this will give the important lift to residential interest for steel. The legislature can bolster the business as far as ban and not pronouncing organizations as NPAs (non-performing resources).

Research Gap

As per the literature review, it was found that there is a research gap. Some of the studies were conducted on the share market before the COVID-19 and after the COVID-19. As for the literature review, we can conclude that there is some impact on the share market. But no study reveals the impact on the share price (steel industry) and production and consumption of steel industry. Hence this study was focused to identify the impact of COVID 19 on the share price, volume, production, and consumption of the steel industry.

Statement of the Problem

The stock market and steel industry development are very important for the development of the economy. In India, only 2.5% of people do trade in the share market. In other advanced country and developing country more percentage of people does trade in the stock market. If people are scared by COVID-19 to invest in the Share market then it's an adverse effect on the share market and Indian economy. Finding is there any impact from COVID-19 is very important to change the policy of the share market. Steel is one of the important components in our day to day life. Steel industry growth is positively correlated with economic development. The impact of COVID-19 is very important for changing the development of the steel industry. Hence this study is very important for the betterment of the economy and share market.

Scope of the study

This study is focused on, has COVID-19 impacted the Steel industry and share market of the steel industry. Then investigate is impact moving positively or negatively to the share market and steel industry. Share market impact is assessed from share price (Open, Closing, and Market Capitalization). The impact on the industry is assessed from the date of production and consumption.

Objectives of the Study

- To evaluate the Covid-19 impact on the share market of the Indian steel industry.
- To Evaluate the Covid-19 Impact on the Production of the Indian steel industry.
- To Evaluate the Covid-19 Impact on the Consumption of the Indian steel industry.

Hypothesis of the Study

- Ho: There is no significant impact between Covid 19 and Opening Price of the Share (Steel Industry).
- Ho: There is no significant impact between Covid-19 and Closing Price of the Share (Steel Industry).
- Ho: There is no significant impact between Covid-19 and Volume of trade of the Indian Steel Industry.
- Ho: There is no significant impact between Covid-19 and Production of Crude Steel.
- Ho: There is no significant impact between Covid-19 and Production of Finished Steel.
- Ho: There is no significant impact between Covid-19 and Consumption of Steel.

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Sampling

Target Population	Stock Market
Sample Element	Steel industry (58 Companies)
Sample Unit	29 Steel Companies
Sample Unit Selection Process	Systematic Random Sampling Method

Data Collection

Data collection and analysis are very important steps for research and its outcome. The research quality depends on the reliability of the data. To conduct this research secondary data was collected from the stock exchange and the ministry of steel.

Research Method

Descriptive and analytical research is used in this research. Descriptive research like mean, SD, etc., Paired T-test used.

Limitation

- This study is limited to twelve months (1stJuly 2019 to30thJune 2020).
- This study is limited to stock market of steel industry.
- This study is limited to production and consumption of Indian steel industry.
- Secondary data was used and limitation of the secondary data is applicable.

Data Analysis and Hypothesis testing

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Open Price After	151.3153	3096	323.49579	5.81391
Open Price Before	164.7466	3096	293.87773	5.28161
Pair 2 Close Price After	150.4810	3096	321.31103	5.77464
Close Price Before	164.2620	3096	293.27819	5.27083
Pair 3 Volume of trade After	181143.20	3096	965861.250	17358.583
Volume of trade Before	115467.03	3096	378830.247	6808.386

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Open After & Open Before	3096	.959	.000
Pair 2 Close After & Close Before	3096	.960	.000
Pair 3 Volume of trade After & Before	3096	.269	.000

Paired Samples Test

	Paired Differences						t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Upper	Lower				
Pair 1 Open After - Open Before	-13.43129	92.71933	1.66636	-16.69858	-10.16400	8.060	3095	.000	
Pair 2 Close After - Close Before	-13.78092	91.38189	1.64233	-17.00108	-10.56076	8.391	3095	.000	
Pair 3 Volume After - Volume Before	65676.168	937651.311	16851.590	32634.737	98717.600	3.897	3095	.000	

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A paired-samples t-test was conducted to compare Opening Share Price before COVID-19 and after COVID-19. There was a significant difference in the opening share price before COVID-19 (M=164.75, SD=293.88) and after COVID-19 (M=151.32, SD=323.50) conditions; $t(3095) = -8.060, p < 0.05$. These results suggest that COVID-19 does have an impact on Opening Share Price.

A paired-samples t-test was conducted to compare Closing Share Price before COVID-19 and after COVID-19. There was a significant difference in the closing share price before COVID-19 (M=164.26, SD=293.28) and after COVID-19 (M=150.48, SD=321.31) conditions; $t(3095) = -8.391, p < 0.05$. These results suggest that COVID-19 does have an impact on Closing Share Price.

A paired-samples t-test was conducted to compare Volume of trade before COVID-19 and after COVID-19. There was a significant difference in the volume of trade before COVID-19 (M=115467.03, SD=378830.25) and after COVID-19 (M=181143.20, SD=965861.25) conditions; $t(3095) = 3.897, p < 0.05$. These results suggest that COVID-19 does have an impact on Volume of trade.

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Crude Steel Production Before	8.9715	6	.31602	.12902
Crude Steel Production After	7.0123	6	2.36818	.96680
Pair 2 Finished Steel Production Before	8.1610	6	.22308	.09107
Finished Steel Production After	6.0368	6	2.55549	1.04327
Pair 3 Consumption Before	8.2957	6	.47311	.19314
Consumption After	5.7755	6	2.81715	1.15010

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Crude Steel Production Before & Crude Steel Production After	6	-.074	.890
Pair 2 Finished Steel Production Before & Finished Steel Production After	6	.021	.968
Pair 3 Consumption Before & Consumption After	6	.196	.710

Paired Samples Test

	Paired Differences						t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Upper	Lower				
Pair 1 Crude Steel Production Before - Crude Steel Production After	1.95917	2.41214	.98475	-.57222	4.49055	1.990	5	.103	
Pair 2 Finished Steel Production Before - Finished Steel Production After	2.12417	2.56048	1.04531	-.56289	4.81123	2.032	5	.098	
Pair 3 Consumption Before - Consumption After	2.52017	2.76369	1.12827	-.38015	5.42048	2.234	5	.076	

A paired-samples t-test was conducted to compare Crude steel production before COVID-19 and after COVID-19. There was no significant difference in the crude steel production before COVID-19 (M=8.97, SD=0.316) and

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after COVID-19 (M=8.97, SD=2.37) conditions; $t(5) = 1.990, p = 0.103$. These results suggest that COVID-19 doesn't have an impact on Production of Crude steel.

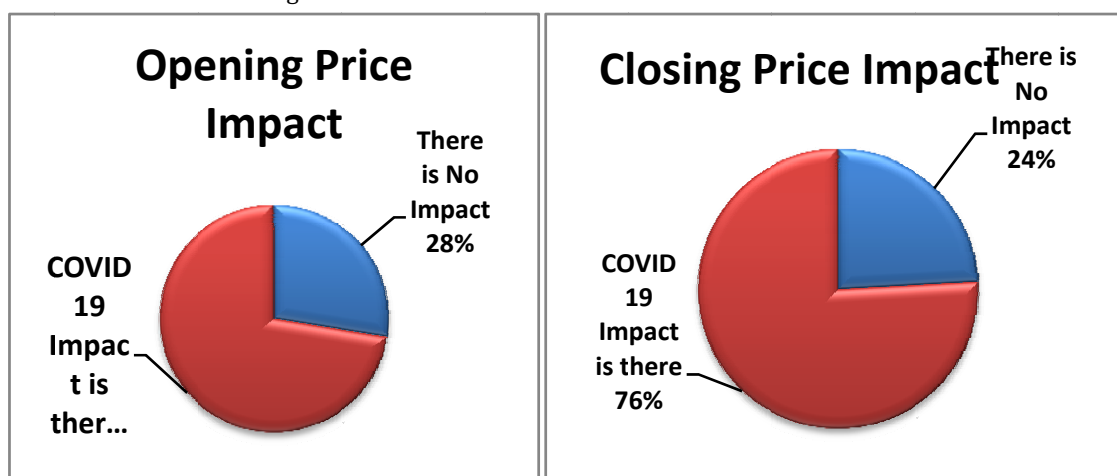
A paired-samples t-test was conducted to compare Finished Crude steel production before COVID-19 and after COVID-19. There was no significant difference in the crude steel production before COVID-19 (M=8.16, SD=0.22308) and after COVID-19 (M=6.04, SD=2.56) conditions; $t(5) = 2.032, p = 0.098$. These results suggest that COVID-19 doesn't have an impact on Production of Finished steel.

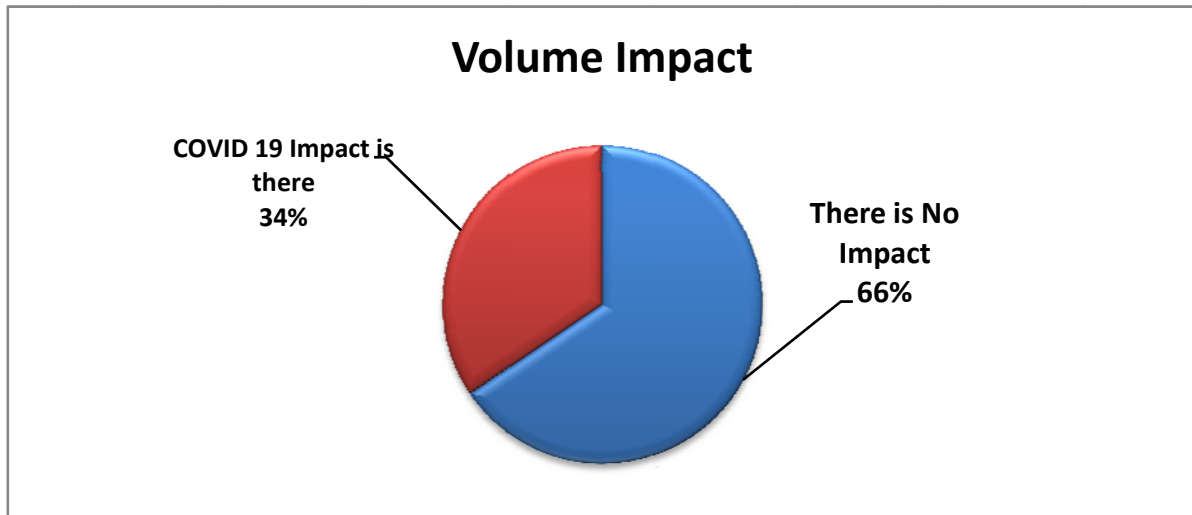
A paired-samples t-test was conducted to compare steel consumption before COVID-19 and after COVID-19. There was no significant difference in the steel consumption before COVID-19 (M=8.30, SD=0.47311) and after COVID-19 (M=5.78, SD=2.82) conditions; $t(5) = 2.234, p = 0.076$. These results suggest that COVID-19 doesn't have an impact on Consumption of steel.

Average Share Price and Volume of trade before and after the COVID-19

Sl No	Company Name	Open Price After COVID 19	Open Price Before COVID 19	Opening Price Impact	Close Price After COVID 19	Close Price Before COVID 19	Closing Price Impact	Volume After COVID 19	Volume Before COVID 19	Volume Impact
1	Mahamaya Steel	85.26	132.63	Yes	85.44	133.07	Yes	4284.85	5861.51	Yes
2	Uttam Value	0.22	0.19	No	0.22	0.19	No	1836904.84	77043.35	No
3	National Steel	2.05	2.30	No	2.05	2.27	Yes	2943.68	2330.42	No
4	Jai Corp	81.47	87.86	Yes	81.23	87.36	Yes	265317.03	204788.79	No
5	Manaksia Steels	9.75	11.97	Yes	9.71	11.98	Yes	5801.55	3321.03	No
6	Jindal (Hisar)	58.05	68.57	Yes	57.73	68.36	Yes	58953.84	35840.20	No
7	Tata Steel	354.55	399.63	Yes	353.50	399.03	Yes	810881.54	848937.07	Yes
8	Metkore Alloys	0.26	0.34	Yes	0.26	0.34	Yes	967.45	3634.98	Yes
9	Shah Alloys	7.33	9.36	Yes	7.29	9.54	Yes	546.61	1285.08	Yes
10	Hisar Metal	56.55	50.45	No	57.08	49.94	No	3113.53	2310.12	No
11	OCL Iron	2.48	5.11	Yes	2.48	5.09	Yes	28328.68	12933.29	No
12	Kamdhenu	70.13	108.17	Yes	69.49	106.81	Yes	6392.95	1953.76	No
13	Mukand	22.31	32.63	Yes	22.23	32.60	Yes	10658.85	12086.77	Yes
14	Technocraft Ind	263.55	343.78	Yes	262.74	342.75	Yes	1193.17	1078.81	No
15	Srikalahasthi	168.97	172.95	Yes	168.10	171.89	Yes	14309.77	6114.91	No
16	ISMT	3.76	4.45	Yes	3.79	4.45	Yes	50646.09	7593.26	No
17	Sunflag Iron	33.48	29.45	No	33.33	29.32	No	50734.33	36257.59	No
18	Ankit Metal	0.42	0.49	Yes	0.43	0.48	Yes	2512.85	4205.23	Yes
19	Gyscoal Alloys	1.84	2.69	Yes	1.84	2.68	Yes	3361.64	7721.06	Yes
20	MSP Steel	5.64	5.75	Yes	5.64	5.74	Yes	1689.39	1106.74	No
21	Godawari Power	161.12	164.48	Yes	159.72	163.98	Yes	10624.35	13198.31	Yes
22	Monnet Ispat	13.23	13.15	No	13.10	12.95	No	47134.10	23217.10	No
23	Tata Steel Long	299.69	425.97	Yes	296.80	424.06	Yes	4924.44	4980.24	Yes
24	Jindal Steel	135.15	124.80	No	135.31	124.77	No	1170290.32	1526373.94	Yes
25	Prakash Steelag	0.28	0.23	No	0.29	0.22	No	16645.69	13069.93	No
26	Gandhi Spl Tube	212.29	313.51	Yes	211.38	313.07	Yes	735.50	430.49	No
27	Surya Roshni	122.37	178.01	Yes	121.12	177.07	Yes	12676.17	9824.15	No
28	Jindal Saw	67.49	77.53	Yes	67.17	77.30	Yes	152395.07	61058.51	No
29	APL Apollo	1623.32	1459.78	No	1612.48	1456.65	No	5871.42	2457.67	No
		Yes = 21, No = 8			Yes = 22, No = 7			Yes = 10, No = 19		

Data Sources – Stock Exchange





As per the above table, 21 companies opening share price was changed because of COVID-19, and the remaining 8 companies opening share price was not changed. 22 companies' closing prices were changed because of COVID-19 and the remaining 7 company closing price was not changed. The volume of trade does not affect by COVID-19. Out of 29 companies, only 10 company volume of trade is less than before COVID-19 and the remaining 19 company volume of trade is more after the COVID-19.

Findings and Conclusion

As per the data analysis and hypothesis testing, it was found that COVID-19 made an impact on the opening price of the share and closing price of the share but there is no impact on the trade volume of the share over the study period. As per mean analysis the average opening price of the share before the COVID-19 is 164.75 and after the COVID-19 is 151.32, the average closing price of the share before the COVID-19 is 164.26 and after the COVID-19 is 150.48, the average volume of the trade before the COVID-19 is 115467.03 and after the COVID-19 is 181143.20. The data analysis and hypothesis testing revealed that there is no impact on the production and consumption of the steel before and after the COVID-19. The mean crude steel production before the COVID-19 is 8.97 MT and after the COVID-19 is 7.01 MT. The mean finished steel production before the COVID-19 is 8.16 MT and after the COVID-19 is 6.04 MT. The mean consumption of steel before the COVID-19 is 8.20 MT and after the COVID-19 is 5.76 MT.

COVID-19 is a pandemic disease and it affected human health and life for a short period of time and in the same manner, it also affected the economy and business in the global village for a short span. Share market is one of the sectors which were affected by the COVID-19. As per the economics major concept, "when the price decreases the demand increases", was happened from Covid-19 impact. Now the share prices are decreased and the volume of the trade is increased it also a good sign for the share market.

Scope for the further study

Share market is called a mirror of the economy; therefore any impact in a negative way is dangerous for the economy. This study concludes that there is a negative impact on the share price and positive impact on the trade volume. Hence further study can be done on how and why share prices are impacted by COVID-19 and what major changes need to be done by implementing the new policies in the trade.

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