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# Impact of Covid-19 on FMCG Sector in India

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**Abstract:** *Coronavirus pandemic shows an unprecedented change globally, and thus the impact is even higher in emerging economies like India. fast paced commodity (FMCG) is one of the foremost important sectors in India with varied businesses, including household, care, etc., with high demand, consumed frequently, and services are provided for a coffee cost. This paper is an decide to study the outbreak of COVID-19 within the FMCG sector. It shows that FMCG is affected uncommonly with many factors like Labours moved to their natives, logistics issues, and changes within the buyer basket kind of a explosion in demand for sanitary products and surged in demand for cosmetics.*

**Keywords:** *Coronavirus, Pandemic, Outbreak, FMCG.*

## I. INTRODUCTION

In the last few decades, pandemics such as the Spanish flu and the Asian cold SARS have occurred in the world. Pandemics around the world have a variety of social, economic and psychological implications. The case here is COVID 19, which has blocked the world for almost a year, starting in Asia and affecting most countries. Countries like India in the development stage are even more sensitive. There have been major changes in many areas, including unemployment in the tourism industry due to travel restrictions, and the decline in travel demand is impacting the aviation industry. Like most industries, FMCG is subject to sudden changes and deterioration. FMCG is a dynamic sector of the Indian economy that is in high demand by consumers. Often, consumer demand makes them buy and consume quickly. The industry is growing in many ways by days. Urban areas are the largest contributors, but in recent years rural areas have been increasing rapidly. This pandemic recession has entered a dramatic phase. The main reasons are labor shortages, production restrictions, increased knowledge of health and hygiene, increased demand for disinfectants, hand-washing detergents, handkerchiefs, etc., and increased demand for organic products will lead to changes in consumer tastes. is. Therefore, the sector's contribution to GDP is rising sharply. Industry changes need to be analyzed to avoid future complications. If you compare the data before and after the Covid19 crisis, you can feel the impact. This study specifically focused on the impact of Covid 19 on the FMCG sector.

## II. REVIEW OF LITERATURE

We are in the midst of the global Covid 19 pandemic, causing two types of shocks to the country. Health shock and economic shock. Given the nature of the highly contagious disease, options to contain the spread include imposing social distance, self-isolating at home, closing facilities and public facilities, restricting movement, and even locking nationwide. Includes policies such as. These measures can have disastrous consequences for economies around the world. In other words, effective containment of the disease requires the country's economy to malfunction. This caused the fear of a deep and long global recession. On April 9, International Monetary Fund Chief Crystalina Georgieva said that 2020 could see the worst downturn in the world economy since the Great Depression of . Coronavirus pandemic. Jakhotiya, Girish, (2020). The Indian economy has achieved significant growth in the FMCG sector in various business areas such as food, beverages, grains and cosmetics. This paper examines the impact of the coronavirus pandemic on India's FMCG sector and its impact on consumers. Action. in India. The paper states that the FMCG sector was heavily affected by the coronavirus pandemic, and Indian employment was affected as workers moved to their hometown of due to the coronavirus pandemic. .. Corporate responses to this issue include safeguards, hygiene and disinfection methods, updated procurement policies, new supplier additions, product portfolio rationalization, and a more responsive assessment of supply chain resilience. , Disaster Analysis, or Emergency Management Plan. In this way, the FMCG sector can cope with the coronavirus pandemic. Yogesh D Mahajan (2020) is a descriptive paper. He pointed out that the FMCG sector is influenced by COVID19 and consumer preferences are also changing from . There are shifts where one sector is accelerating and others are decelerating. A company that can dynamically respond to the 's evolving demand and show a resilient stance can overcome the pandemic. Having in large part neglected Covid-19 as it unfold throughout China, international economic markets reacted strongly closing week whilst the virus unfold to Europe and the Middle East, stoking fears of a international pandemic. Since then, Covid-19 dangers were priced so aggressively throughout numerous asset training that a few worry a recession withinside the international economic system can be a foregone conclusion.

S. Rajamohan, et al (2020) The COVID-19 in India made an unfavourable effect in vehicle region at some point of the examine period. The surprising fall of inventory values have an effect on the enterprise production procedure and it's been encouraged the inventory marketplace for a period and it is able to get better quickly with most efficient capability. Amit Joshi, et al (2020) exclaimed the effect of covid19 and the methods wherein the numerous sectors withinside the united states affected, additionally cautioned suitable measures to govern the terrible impacts. S.Mahendra Dev (2020) talked about the capability effect of covid-19 in numerous financial segments and tested guidelines introduced with the aid of using the relevant authorities and measures taken with the aid of using Reserve financial institution of India and additionally cautioned for sure sectors

**A. Study Design Purpose of Research**

- 1) Examine the stationarity of the FMCG sector index in the period before and after COVID19.
- 2) To measure the impact of COVID19 Price fluctuations in the FMCG sector.
- 3) Analyze volatility index prices for the FMCG sector in COVID 19 prior to and in the future.

**B. Hypothesis**

- 1)  $H_0$ : The index price return for the FMCG sector is , which is non-volatile.
- 2)  $H_0$ : COVID19 does not affect the index price return for FMCG industry.

**III. METHODOLOGY OF THE STUDY**

This study is of both descriptive and analytical in nature and discusses the positive and negative impact of COVID-19 on FMCG sector.

- 1) *Sources of Data:* The study uses secondary data for the analysis of FMCG sector, the data is taken from NSE. To examine the sources were collected from magazines, journals, newspapers etc.
- 2) *Period of Data:* For analysing the impact of COVID-19 on FMCG sector, the data collected for pre covid-19 from December 2019 to January 2021 and for post covid-19 from June 2021 to August 2021.

**IV. DATA ANALYSIS AND INTERPRETATION**

The data collected are analysed through respective statistical tools like Relative Strength Index (RSI), Augmented Dickey Fuller Test (ADF) and GARCH (1,1) Model. SPSS-IBM.

**A. Measuring the Speed and Changes of Price Movements by using Relative Strength Index**

The Relative Strength Index (RSI) was introduced by Welles Wilder in June 1978, it is one of the extensively used technical indicators used in the analysis of financial markets. Momentum oscillators calculates the speed and price movement of the security, RSI compares the average gain and average losses of the security. The standard has to use 14 periods to calculate the RSI initial value.

The formula for RSI is

$$RSI = 100 - (100 / (1 + RS))$$

RS = Average gain per day/ Average loss per day

The change is calculated by the differences in the current and previous prices. Upward trend is calculated by increasing in change and downward is calculated by decreasing in changes, later the average upward and average downward is calculated for 15 days before each and every day respectively.

Pre-covid movement

Upward	Downward	Avg up	Avg down	Relative strength	R.strength index
192.64	166.657	181.456	171.321	1.15623	47.3452

Source of data-NSE

In RSI the value ranges from 0 to 100, the value of 70 or more than is overbought condition if reading is 30 or less than, it is oversold condition, the condition prevailed in pre-covid RSI average (47.3452) i.e average performance of share, it clearly indicates share is neither overbought nor oversold of FMCG Industry in pre-covid.

Post Covid Movement

Upward	Downward	Avg up	Avg down	Relative strength	R.strength index
221.2315	172.6362	217.2567	170.3745	1.29645	59.3872

*B. Price Movements of FMCG Sector during the Post COVID-19 Period*

In the post-covid the RSI average is 53.73881014. Therefore it indicates that the share is neither overbought nor oversold of FMCG.

*C. Measuring Stationarity of Stock Price during the Pre-COVID-19 Period by using Augmented Dickey Fuller Test (ADF)*

The Augmented Dickey Fuller Test (ADF) is unit root test to find stationarity. Unit roots can cause unpredictable results in time series analysis. The Augmented Dickey-Fuller test can be used with serial correlation.

Unit test root		T-statistic	probability
ADF statistics		-12.2341	0.0000
Test critical values	1%	-3.01221	
	5%	-2.94555	
	10%	-2.43321	

In the augmented dickey-fuller test the t-statistics value (-12.2341) is lesser than the critical value at all the level of significance in the price returns of FMCG index. Hence it can be interpreted that the FMCG sector index price of pre COVID-19 period has been obtained stationarity in the level itself. Further the Probability (p) value represents the rejection of hypothesis 0.974456(-0.092096 + 1.066552) during the study period. That is 97 percent of volatility exist in the selected sample index during the study period. Hence the hypothesis is rejected.

**V. CONCLUSION**

The purpose of this study is to analyze the impact of COVID 19 on the stock market, especially in the Fast-moving Consumer Goods (FMCG) section of the National Stock Exchange. The Relative Strength Index (RSI) results clearly show that the market has changed significantly since COVID19. The RSI has increased slightly due to the surge in demand for certain products. As a result of all analysis, COVID 19 adversely affected the FMCG sector in India. Therefore, the above results show significant changes and impacts on the FMCG sector during the study period. As one of the most dynamic sectors, FMCG needs to deal with flexible plans to deal with sudden changes in the future.

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