



## Some Major Aspects Of Covid -19 Pandemic On Pharmaceutical Industry

Parul Jain<sup>1\*</sup>, Virendra Singh<sup>2</sup>

<sup>1\*</sup>Research Scholar, Professor (SOAH), paruljain12345.pj@gmail.com, drvirendraraghuvanshi@gmail.com, +91-9027772328, +91- 9412532707

<sup>2</sup>Department of Arts and Humanities, IIMT University, Meerut (250001), U.P. (India)

**\*Corresponding Author:** Parul Jain

\*Research Scholar, Professor (SOAH), paruljain12345.pj@gmail.com, drvirendraraghuvanshi@gmail.com, +91-9027772328, +91- 9412532707

### ABSTRACT

COVID -19 has led to unprecedented effects all over the world after the virus has badly effects the first time Wuhan China. It has effects the economics and social lives of the people of India and different sectors of the economy. People suffered from losses decreased sales, losing jobs and also lost their dear ones due to this pandemic disease. As per the different industrial sectors pharmaceutical sector of India has its own importance due to the utility of its product of medicines, equipment and surgery. During the pandemic of COVID -19 pharmaceutical industry has contributed its efforts in the development of research and innovation in terms of treatment, different tests for diagnosis, immunity ingest vaccines given to large number of people after enlarge the production capacity of the pharmaceutical industry. Pharmaceutical sectors of India have its contribution in the overall development of the economy by providing ample job opportunities, earning foreign exchange in International market. The performance of selected pharmaceutical industry before and during the Covid -19 pandemic is compared. Simple statistical methods like percentage and average are used the findings reveal that Covid -19 has more positive impact on the Pharmaceutical industry in terms of innovation, production capacity, self-reliant and bulk sales in the market.

**Keywords:** Corona virus, COVID -19, GDP, Pandemic, Pharmaceutical industry

### INTRODUCTION

COVID-19 has led the unprecedented effects von the economic and social lives India along with the whole world. Coronavirus disease which began in Wuhan, China in December 2019 declared as pandemic disease by the World Health Organization on 11 March 2020. This disease caused by a newly identified virus, Severe Acute Respiratory Syndrome Coronavirus 2(SARS-CoV-2).It led to widespread losses for the businesses and lives and to combat the losses inflicted by it, the government of different nations imposed lockdowns and public safety restrictions [1].

### VACCINATION OF COVID -19 DISEASES

Without compromising safety scientists made coronavirus vaccines. “a covid-19 VACCINE IS A VACCINES WHICH INTEND TO PROVIDE IMMUNITY AGAINST SEVERE ACUTE RESPIRATORY SYNDROME CORONAVIRUS 2 (SARS- COV -2. which cause coronavirus disease 2019. The COVID -19 vaccines are created to play the role in reducing death and severity caused by COVID -19. As per National Public Health Agencies from reports .2 billion doses of COVID -19 vaccines have been administered worldwide as of 14 December 2021. By December 2020 half of the doses purchased by high income countries which include 14% of the world’s population, more than 10 billion vaccines doses reordered by countries. Which also increase the importance of pharmaceutical industry in the emergence of coronavirus diseases [2].

### PHARMACEUTICAL INDUSTRIES HIT BY COVID -19

- 1) Unwilling to share information as for stock management.
- 2) Inappropriate planning as for cold storage of vaccines.
- 3) Delay in reaching medicines to the people due to lack of development process.
- 4) Lack of innovation and technology to ensure new product quickly made as for in the case of COVID -19 vaccines.
- 5) Lack of investment in larger network of partners to utilize the lock manufacturing capacity.
- 6) Unexpanded Communication Channels for large network of medicines.
- 7) Inventory reserves are not upto the mark for meet emergency situation.
- 8) Unhealthy foreign relations sometimes.
- 9) Depend on foreign technology for some part of medicines product.
- 10)Lack of investment in research and development.
- 11)Licensing policy for manufacturing selling and distribution of medicines and other products.
- 12)Restriction of recruitment of staff in nursing and clinical pharmacy.

### **PROBLEMS FACED BY PATIENTS DURING PANDEMIC OF COVID -19**

There are various illegal ways of doing business done by pharmaceutical industry during COVID -19 as these are: -

- 1) Nursing staff takes undue advantage of patients as to charge higher prices of medicines which were short in supply, take extra charge of giving ventilators.
- 2) Ambulance or transport department also charge high price of giving services to the patients.
- 3) Company earn higher return of by increasing prices of essential medicines and product during the time pandemic as which are oxygen cylinder, injections etc.
- 4) Higher workload faced by clinical staff due to which there were lack of efficiency in work done by him.
- 5) Healthcare professionals faced mental depression, sleep disorder, loneliness, insomnia, heavy workload due to which their behavior was rude with the patients.

### **Advantages taken by Pharmaceutical Industry during Covid -19 pandemic**

- 1) Pharmaceutical industries earn the profit due to the heavier demand of medicines, sanitizers, masks, personal protection kit for health professionals.
- 2) Heavier demand of medical equipment like ventilators, oxygen cylinder , beds etc.
- 3) Rise in prices of medicines and equipment due to lack of supply and higher demand.
- 4) Due to banned of export and import Pharmaceutical industry which were depend on some raw input on export try to make its own which give emphasis on self-dependence.
- 5) New pharma industry emerges due to easier way of getting license and no licensing policy.
- 6) Pharmaceutical industry gets funding from banks and various financial institutions at very cheap rate,
- 7) Pharmaceutical industry registers a growth rate of 15%.

### **UPGRADATION FACTORS WHICH ARE REQUIRED TO BE ADOPTED BY THE PHARMACEUTICAL INDUSTRY**

With the prevail of the high competition among the industry the pharmaceutical industry is required to new cures for upcoming diseases, faster learner processes, research and innovation in the industry.

- 1) Digital twin and simulation
- 2) Smart Bio manufacturing
- 3) Paperless Manufacturing
- 4) Continuous Manufacturing
- 5) Integrated Engineering
- 6) Integrates secondary lines
- 7) Cell and Gene Therapies
- 8) Innovation in Pharmaceutical Research and Development
- 9) Complaint operations
- 10) Process Analytical technology
- 11) Integrated batch processing
- 12) Autonomous guided vehicles
- 13) Pharmaceutical plant lifecycle services
- 14) Discover trends presentation news and reference projects
- 15) Expert Guidance

### **List of Top Ten Pharmaceutical Industries In India**

- 1) Sun Pharmaceutical Industries Ltd.
- 2) Dr. Reddy 's Laboratories Ltd.
- 3) Divi's Laboratories
- 4) Cipla
- 5) Aurobindo Pharma
- 6) Torrent Pharmaceuticals
- 7) Lupin Ltd.
- 8) ZydusCadila Healthcare
- 9) Abbott India
- 10) Alkem Laboratories

### **IMPORTANCE AND SCOPE OF PHARMACEUTICAL INDUSTRIES**

Pharmaceutical industry develops the new research and technology to find out the cure of every disease so that the mortality rate can be enhanced. The following are various importance of pharmaceutical industry.

#### **1) New Dimension of research operation: -**

Pharmaceutical industries have developed its new dimensions for the operation of business. Come up with new and advanced research and technology of doing business.

**2) Export Promotion and Import Substitution: -**

When the export was banned with other country due to the situation of lockdown in that situation the industries has tried to become the self -dependent and produce its own input for the raw material of the medicines.

**3) Early Mover Advantage: -**

Pharmaceutical industry has tried to get the early mover advantage especially at the time of pandemic by fulfilling the highest demand of medicines and equipment the company gets the higher return after meeting the undesired demand.

**4) Research and Development: -**

Pharmaceutical industry has given due emphasis on the research and development of the new medicines, equipment and product of wellness to prevent the life of people.

**5) Integration and Coordination: -**

The pharmaceutical industry tried to build the feeling of integration and coordination so that the employee work through the feeling of integration and there is no conflict between the goal employer and employee make the coordination in between them.

**6) Code of Conduct: -**

The pharmaceutical industry also follow the code of conduct prescribe by the government from time to time so that the image of the industry should evoke trust and confidence between the stakeholder and government also.

**7) Fulfill Global Vaccines demand: -**

Pharmaceutical industry fulfills the global vaccines demand in the market. This sector fulfills the 50% of global demand for vaccines. In the financial year 2018 India 's pharmaceuticals industry export stood at US\$ 17.27 billion.

**8) Enlarge Market Share: -**

In 2021 India's pharmaceuticals domestic market is at US\$ 42 billion and by the 2024 it is likely to reach by US\$65 billion and if we can analysis further it is likely to reach at US\$ 120-130 billion by 2030. This states that pharmaceutical industry has become the king in the market and have a wide market area.

**DIMENSION OF PHARMACEUTICAL INDUSTRIES**

In pharmaceutical industry there is massive transformation with the emergence of new technologies, cost effective, and more efficient manufacturing approaches. increasing investment in this flow has impacted the market growth positively. The global pharmaceutical manufacturing market size was estimated at US \$ 405.52 billion in 2020. In pharmaceutical industry it is expected to grow at a compound annual growth rate (CAGR) of 11.34%. from 2021 to 2028. In pharmaceutical industry there is increased in the Mergers and Acquisition in the past few years. In the highly competitive environment, most of the well established companies are consolidating to enhance their market position. In 2018, 59 drugs gained regularly approval from US. In comparison with large molecule drugs small molecule drugs contain 60% of share. Pharmaceutical companies are trying to expanding its business throughout the world [3].

Pharmaceutical industry creates revenue share of 54% in dominant segmented market in 2020. Pharmaceutical industry also does the process of outsourcing of work done in the following reasons.

- 1) Outsourcing services minimizes the investment.
- 2) Outsourcing services minimizes the cost.
- 3) Easily comply with various regulatory reforms.
- 4) Increasing drug development procedure.
- 5) Increase efficiency in manufacturing sectors.
- 6) Helps to increase the process of research and development.

Pharmaceutical industry has also developed the process of cancer therapies which also increase the high sales of oncology drugs. Investments becomes double in this sector by the healthcare professionals [4].

Pharmaceutical industry has also created the investment of diabetes segment due to increase in large number of incidence rate of diabetes globally. It creates amply opportunities for the pharmaceutical industries to develop and grow by finding out the default. In 2019 there were approximate 46 million adults with diabetes and by the 2045 it is expected to increase by 700 [5].

Indian pharmaceutical companies increase its exports by 6.6% and have achieved the 12<sup>th</sup> largest exporter of medical goods in the world. In the crisis of COVID -19 India supplied a total of 586.4 lakh vaccines. India imported patented medicines. Pharmaceutical market turnover reached Rs 129,015 crore (US\$ 18.12 billion) in 2018 according to the department of pharmaceuticals, Ministry of Chemicals and Fertilizers. India also made low cost generic drugs. India manufactured more than 50% vaccines all over the world [6]. Indian pharmaceutical industry also meets the requirement of highly regulated markets of Canada, USA, UK, European Union, Major pharmaceuticals hubs in India which produce large number of vaccines and indulge in exports are Vadodra, Ahemdabad, Ankles war, Vapi, Baddi, Sikkim, Kolkata, Vishakapatnam, Hyderabad, Bangalore, Chennai, Mumbai, Oune, Aurangabad.

**NUMBER OF INDUSTRIES SUFFERED FROM COVID -19**

There are various number of industries suffered from COVID -19 .The COVID -19 disruption has destroyed the global market which causes challenges in the study chain. There is huge expenditure spend on buying the medicines. There are also various challenges and opportunities which is rightly applied at the time of pandemic. There are various tools and techniques which emerges from the time of pandemic which include machine learning, cloud technology and other digital investment. The waves of COVID-19 spread throughout the world. It spread like a fire and more than 140 million

infections and over 3 million deaths globally reported 600 deaths have been reported and more than 46,000 infections reported in March 2020 [7]. The case of Covid-19 increases due to Globalization and migration of people from one place to another. There is also numerous problem in hospitality and tourism sectors. In pharmaceuticals industry their sales lower by 21% and their investment also lower by 26%. Firm also reported the high risk and facing uncertainty in their business in the time of COVID-19 pandemic sales lowered by [8].

### **INVOLVEMENT OF GOVERNMENT IN COVID -19 PERIOD**

Government played a very important role in the pandemic of COVID-19 as it has sponsored the various schemes and policies for the upliftment of poor or needy people. Tremendous efforts done by the Government to control the situation of COVID -19 in the country the various efforts are [9]

#### **1) Soft loan: -**

Government provides soft loan to the people who are needy and also provide loan to the startup and entrepreneur professional so that they can smooth out their business cost and expenses which have occurred during the period of pandemic when the company has no business.

#### **2) Transparent policies: -**

Government provides the various transparency policies which gives benefits to the millions of people as Government transfers the monthly rupees 500-1000 in their account through the attachment of forms and Aadhar card so that only the people who deserve can get the help from this scheme.

#### **3) Subsidies: -**

Government provides subsidies to the various poor people through the various poor people through the various schemes and programmed run by the government from time to time. As during pandemic government gives free ration to the poor families they get in 1 month two times ration which include rice, wheat, oil Chana and salt so that no one people get suffered from hunger due to has low income.

#### **4) Transportation facilities: -**

Government also provides transportation facilities to the people who lives far from their families for finding out the work, job worker and students.

#### **5) No burden of EMI: -**

During the period of pandemic, the government gives instruction to the bank not to charge the EMI during the pandemic and after the pandemic the EMI can be given to the bank at the reasonable instalments as the income increases.

#### **6) Online Training Programmed: -**

There are various programmed run by the government like Digital Education, Internet Access under Bharat Net, Training Programmed, Sodhganga .etc. so that people remain at home can utilize their time in best possible way.

#### **7) Medical Facilities: -**

Government provides facilities of beds, ventilators, medicines, equipment and machines to save the lives of the millions of people.

#### **Rebate in licensing: -**

The government gives rebate to the various licensing policies of the pharmaceutical company so that more company comes and meet the demand of the market through enlarge the production.

### **INVOLVEMENT OF BANKS IN COVID-19 PERIOD**

Banks also played a very important role in the time of pandemic as it helps to raise finance provides financial support and bring out easy return debt policy for the people [10]. The following role of the banks are:

#### **1) Easy finance :-**

Banks provides easy finance to the people at the time of pandemic who are suffering from lack of finance and provide cheap loan to the people at large.

#### **Online Platform: -**

Banks provides various online platform like Debit credit transaction , importer and exporter transaction , Account holder balance, Online payment, Online attachment of proof id for verification etc.

#### **Provides Soft loan: -**

Banks provides soft loan to the households, businessman, and entrepreneur so that in the time of pandemic they can fulfill their basic needs and they can do some business or any other work for earning their income.

#### **Relaxation in EMI: -**

Banks provides relaxations in EMI at the time of pandemic as because people didn't earn any income and some people lost their job also and some have utilized their saved money and become with no money due to all these problems emergence at the time of pandemic. Banks decides not to give the burden of EMI at the time of pandemic.

**REFERENCES**

1. Shi Yu, Wang G, Cai X, Deng J, Zheng L, Zhu H, Zheng M, Yang B, Chen Z (2020). An overview of COVID-19. *J Zhejiang Univ-Sci B (biomed & biotechnol)* 2020 21(5):343-360.
2. Biswas N, Mustapha T, Khubchandani J, Price JH (2021) The Nature and Extent of COVID-19 Vaccination Hesitancy in Healthcare Workers. *Journal of Community Health* (2021) 46:1244–1251 <https://doi.org/10.1007/s10900-021-00984-3>
3. Roy S (2020). Economic Impact of Covid-19 pandemic 1-19. [https://www.researchgate.net/publication/343222400\\_](https://www.researchgate.net/publication/343222400_)
4. Al Shraah A, Abu-Rumman A, Alqhaiwi L, AlShaar H (2022). The impact of sourcing strategies and logistics capabilities on organizational performance during the COVID-19 pandemic: Evidence from Jordanian pharmaceutical industries. *Uncertain Supply Chain Management* 10 (2022) 1077–1090.
5. Tirivangani T, Alpo B, Kibuule D, Gaeseb J, Adenuga BA (2021). Impact of COVID-19 pandemic on pharmaceutical systems and supply chain – a phenomenological study. *Exploratory Research in Clinical and Social Pharmacy* 2(2021) 100037. <http://dx.doi.org/10.1016/j.rcsop.2021.100037>
6. Malathi S, Dhinakaran D, Yogesswari B (2021). Impact of Covid-19 on Indian Pharmaceutical Industry. *Annals of R.S.C.B., ISSN:1583-6258, Vol. 25, Issue 6, 2021, 11155 – 11159.*
7. Almurisi SH, Al Khalidi D, AL-Japairai KA, Mahmood S, Chilakamarry CR, Kadiyala CBN, Mohananaidu K (2021). Impact of COVID 19 Pandemic Crisis on the Health System and Pharmaceutical Industry. <https://nanobioletters.com/> Volume 10, Issue 2, 2021, 2298 - 2308 <https://doi.org/10.33263/LIANBS102.22982308>
8. Ayati N, Saiyarsarai P, Nikfar S (2020) Short and long term impacts of COVID-19 on the pharmaceutical sector. *DARU Journal of Pharmaceutical Sciences* (2020) 28:799–805 <https://doi.org/10.1007/s40199-020-00358-5>
9. Kumar VM, Pandi-Perumal SR, Trakht I, Thyagarajan SP (2021). Strategy for COVID-19 vaccination in India: the country with the second highest population and number of cases. *Npj vaccines* 9(2021) 1-7 <https://doi.org/10.1038/s41541-021-00327-2>
10. Tran DV, Hassan MK, Alam AW, Dau N (2022) Banks' financial soundness during the COVID-19 pandemic. *Journal of Economics and Finance* (2022) 46:713–735. <https://doi.org/10.1007/s12197-022-09591-x>