



Covid 19 Pandemic and Indian Pharmaceutical Industry

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Abstract

India has made a name for itself as a manufacturing center for pharmaceuticals. By manufacturing patented international products under license and reverse-engineering generic drugs, the Indian pharmaceutical industry has turned the country into "the pharmacy of the world." The sector is expected to grow by 4-6 percent in 2020, according to the Indian Credit Rating Agency (ICRA). Also the industry may manage to keep up its Research & Development (R&D) activities even in these challenging times, as the sector is spared from some of the economic challenges that many businesses are currently dealing with. The study was conducted based on secondary sources i.e. the existing literature on Pharmaceutical Industry and also the Covid-19 situation is extensively referred for analysis of the challenges and opportunities of the Indian pharmaceutical industry. Along with the significance to R&D in pharmaceuticals, appropriate planning to reduce the socio-economic burden. And, in a reordered version of globalization, global public goods like healthcare security will attract nations to seek partners with more comparative advantage in providing for: essential drugs; medical expertise for treatment, and in-state capacity-building for medical-aid and service to other nations as required. The study concludes that improvements in the Pharmaceutical sector will undoubtedly improve the Indian Pharma's global image and popularity.

(Key Words: Pharmaceutical companies, COVID-19, Drugs, Research & Development, CUP)

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I. INTRODUCTION

India's pharmaceutical industry has for years provided the developing world with affordable medications. Since the mid-1960s, India has made a name for itself as a manufacturing center for pharmaceuticals. By manufacturing patented international products under license and reverse-engineering generic drugs, the Indian pharmaceutical industry has turned the country into "the pharmacy of the world." It is high time to play a major part in giving the world a vaccine for COVID-19. With the spread of COVID-19 and the ongoing race for a vaccine or effective treatment against the corona virus, attentions have been drawn to one of the only pharmaceutical hubs in the world i.e. India, which has the capacity to mass produce billions of units of such a pharmaceutical product because of the low cost of manufacturing and advancements in bioscience in our country. India has become the world's leading manufacturer of generic drugs in five decades, with the industry's value growing from zero to over USD33 billion.

Local producers dominate the sector, with Indian small or medium-sized enterprises controlling some 65% of the market. Nevertheless, multinational pharmaceutical companies such as Pfizer, Johnson & Johnson, Roche, and Bristol-Myers have facilities and had an active presence in India. In June India's Cadila Healthcare reached an agreement with the US-based pharma company, Gilead Sciences, to locally produce Remdesivir, a medication developed by Gilead Sciences with supposed antiviral properties and apparently effective against COVID-19.

According to Xinhua, the API (Active Pharmaceutical Ingredient) for the drug has been developed and manufactured at the company's manufacturing facilities in India's western state of Gujarat. But in any case, India's market share in the industry will be roughly 40% by the end of the year. This means that, quite probably, a notable portion of the prescription or over-the-counter drugs that are consumed will be produced somewhere in India, much in the same way that many of the electronic devices were most likely made in China.

The sector is expected to grow by 4-6 percent in 2020, according to the Indian Credit Rating Agency (ICRA). Also the industry may manage to keep up its Research & Development (R&D) activities even in these challenging times, as the sector is spared from some of the economic challenges that many businesses are currently dealing with. Not surprisingly, the pharma industry is among the few sectors which will not experience a notable contraction in the wake of the pandemic.

II. REVIEW OF LITERATURE

Babak Babali (2020) highlighted that the Indian pharmaceutical industry's success comes on the backdrop of biomedical research. Indian pharmacological researchers are continuously at work to come up with generic formulations which do the job of patented—and more expensive—drugs without patent violation, especially since 1994 when India became a signatory to the Trade-Related Aspects of Intellectual Property Rights (TRIPS). *Deepanshu Mohan, Samarth Gupta (2020)* their study focused that India has the potential to do tremendously attain comparative advantage in the areas of pharma-based exports and in medical tourism and in embedding state-diplomacy with medical-diplomacy and investing in its outreach, there needs to be a radical (re)orientation in our global (diplomatic) priorities and commitments, starting from regional to international channels. *Sandeep Narula (2020)* in his study made recommendations to the Indian government for considering drug manufacturers and provide free land, reasonable financing costs and free utilities like water, steam and power. The study also recommended relaxing policies to make it easier for research teams to conduct clinical studies. *Juilee Dandekar (2020)* in her study identified that although India depends on China to meet its bulk drug requirement, steps taken by the Indian government to incentivise the production of APIs and KSMs under the 'Make in India' programme will help in reducing this dependence. The promotion of bulk drug parks under this initiative would help India become self-sufficient in drug manufacturing, from KSMs to generic formulations.

III. OBJECTIVES & METHODOLOGY OF THE STUDY

The present study aims to identify the role of Pharmaceutical Industry in India during the times of COVID 19 pandemic. This paper attempts to analyze the impact of Covid19 on Pharmaceutical Companies, to explore major players of the Pharmaceutical sector and to trace the risks and challenges of the pharmaceutical industry at the times COVID19 pandemic.

Methodology

The conceptual paper is mainly relied on secondary data sources i.e. Annual Reports of Pharmaceutical industry, Research and Review articles, Bulletins issued by Pharmaceutical Companies, Books and some inputs from the Internet. The existing literature on Pharmaceutical Industry and also the Covid-19 situations is extensively referred for analysis of the challenges and opportunities of the Indian pharmaceutical industry.

IV. ROLE OF INDIAN PHARMACEUTICAL SECTOR DURING COVID-19

As economies around the world are suffering from the impact of COVID-19, businesses are experiencing losses, workers are without jobs, and many face the challenge of a complete upheaval of lifestyle. However, pharmaceutical companies taking centre stage in the COVID-19 fight, such as Gilead and Eli Lilly, are seeing positive growth on the stock market and a new burst of innovation in the infectious disease landscape as the race for treatment approval for a COVID-19 therapy takes off. Similarly there was much impact on several other pharmaceutical companies during the time of pandemic.

Indian pharmaceutical business is in demand not only in states, but also in many other international NGOs and public health non-state actors have been using generic Indian drugs for affordable treatment in countries within Africa, parts of Latin America over the last decade. For instance, Doctors without Borders, a humanitarian organisation, estimates that treatment of AIDS using generic Indian drugs is two to three times cheaper as compared to treatment using branded drugs. Consequently, UNICEF and UNITAID too rely heavily on generic drugs manufactured in India for their aid programs.

In comparison to other countries, say, the United States, China or Eurozone, India has been both, fortunate and cautious, in preventing the contagious spread of the virus in its domestic territory with early restrictions on mobility from other countries, pursuing contact tracing, and announcing a lockdown early. It has also taken larger efforts in recent weeks to send across medical supplies and drugs including Hydroxychloroquine to other nations in need.

There is, therefore, a much greater potential for India's pharmaceutical sector now to increase trade partners both regionally and in other parts of the world. The government can encourage this by investing in more R&D for drug and pharma research within India (public medical colleges and universities can be used for this purpose) and provide for more incentives to the private sector to enhance its production for export channels.

The Indian government has also promoted India as a better medical tourist destination by issuing fast-track medical visas and rapid airport clearances for those visiting as medical tourists.

V. MAJOR PLAYERS OF INDIAN PHARMACEUTICAL SECTOR DURING COVID 19 PANDEMIC

The most exciting prospect for the Indian pharmaceutical sector in future is playing a role in the development of a COVID-19 vaccine. The Serum Institute of India (SII) has teamed up with the British-Swedish company, AstraZeneca, to mass produce a proposed vaccine developed by the University of Oxford. It is said that SII has even started the clinical trial of the vaccine on humans. Several Indian pharma companies viz., Aurobindo, Dr. Reddy, Glenmark have acquired US ANDA (Abbreviated New Drug Application) portfolios which will aid growth going forward. The growth in FY-2021 is expected to be supported by 1.88 per cent WPI linked price hike for domestic NLEM (National List of Essential Medicines) portfolio.

Gilead, potentially the most beneficial and controversial of all COVID-19-fighting drug-makers, has also made a contribution to the COVID-19 battle. Remdesivir, Gilead's promising antiviral, has been given Compassionate Use Program (CUP) status and is one of the top-ranked drugs to help battle the coronavirus crisis. It has had positive results in animal studies and also in those treated on its CUP. The drug was granted orphan drug status on March 25th, 2020, by the Food & Drug Administration (FDA), which garnered heavy criticism: orphan drug designation would also entail huge tax benefits and a long patency period in which generics cheaper and more accessible alternatives would not be permitted.

Pfizer has also unexpectedly gained from the coronavirus outbreak. Pfizer's pneumonia vaccine Prevnar 13 has seen an unexpected jump in sales, most probably due to the course of the coronavirus, which in severe cases causes pneumonia with high mortality rates. This increased revenue for Pfizer will be matched and exceeded if its collaboration with BioNTech for a COVID-19 vaccine is successful. This will be developed for areas outside of China suffering from the pandemic, as BioNTech has collaborated with Shanghai Fosun Pharmaceutical Group in China. Although the vaccine will endure a long path to approval, the unknown recurrence of COVID-19 alongside the huge economic and social impact it has caused globally will guarantee widespread uptake of the vaccine. Global Data believes that the collaboration between Pfizer and BioNTech will face fierce competition from other pharmaceutical companies such as Johnson & Johnson, Gilead and Amgen. There are also unexpected entrants to contend with, such as Kentucky BioProcessing, a subsidiary of British American Tobacco, who are in preclinical stages with a not-for-profit plant-based vaccine.

VI. COVID-19 IMPACT ON INDIAN PHARMACEUTICAL COMPANIES

During this crisis the key pointers that pharmaceutical companies should focus on viz., respond, recover, and thrive. During these unprecedented times, pharmaceutical companies are responding to the rapid challenges arising from disruption in supply chains and the need to change business processes. If the current COVID-19 pandemic lasts for a medium/long span of time, it may impact the supply of active material and ingredients mainly from China, as well as the import and export of pharmaceuticals. There is also the potential for negative impacts of both a medium- and longer-term nature on R&D and manufacturing activities, as well as delay on projects / programmes not related to the core supply chain/data management operations.

While the full impact of the global pandemic is still unknown, pharma companies need to respond, recover and thrive. In a post-corona virus global order, India's comparative advantage can rely heavily on becoming a major provider for global public-goods and services viz., in healthcare, education and tech-support capacity for innovation, given how the demand for these are likely to go up in years to come. Thus the prospects in healthcare could be raised as a case in point. India's existing advantage of large-scale pharmaceutical production allows it to significantly leverage its soft power by investing in the outward growth of the healthcare sectors of other nations by:

- a) Boosting up exports in pharmaceuticals;
- b) Becoming a preferred medical tourist destination (for those seeking affordable treatment in quality secondary/tertiary health services)
- c) Pursue medical diplomacy (by providing medical training and technical expertise to many other developing nations whose healthcare systems are much worse than India.)

A. Boosting Pharma Exports: According to the Indian Brand Equity Foundation (IBEF), pharmaceutical exports of India from the Financial Year 2012 to 2019 have steadily grown from \$10 billion to \$19 billion. As per recent estimates, India accounts for about 10% of world's pharmaceutical production by volume and 1.5% by value. The industry is the world's largest supplier of generic drugs and controls around 18% of the global market. It is also a leading producer of vaccines in the world and caters to about 50% of global vaccine demands. This is due to an already high demand for Indian drugs because of cheaper pricing, making these more affordable to both developing and developed nations.

Drugs like Paracetamols and Ritonavir are massively exported to some of the nations most affected by COVID-19. Even with the breakout of the COVID-19 pandemic, many private Indian Pharma Manufacturers expressed their desire to increase their supply of required drugs – like Hydroxychloroquine to these nations. There is, therefore, a much greater potential for India’s pharmaceutical sector now to increase trade partners both regionally and in other parts of the world. The government can encourage this by investing in more R&D for drug and pharma research within India as medical colleges and universities can be used for this purpose and provide for more incentives to the private sector to enhance its production for export channels.

B. Encouraging medical tourism into India: Over the last few years, particularly since 2014, the number of people coming to India for medical treatment has grown annually at about 55%. According to Ministry of Tourism, the medical tourism space was valued at around \$3 billion (US\$) in 2015 and at \$9 billion in 2020. Although, most key players in the medical tourism space are those in the private sector but it is clear that this is a space for the Indian government to develop much more capacity in years ahead.

Based on the data available on countries with higher representation of medical tourists into India, there was highest representation from nations in West Asia and South Asia. Though, in terms of medical expertise and quality of public health care, countries like South Korea, Taiwan, Singapore, Malaysia and Indonesia offer competition to India, but in terms of affordability of tertiary services (dentistry, skin related treatments, cardiovascular ailments etc.) India has been a preferred destination.

C. Pursue Medical Diplomacy: Despite India’s huge strides in medical-value tourism and in growth of pharmaceutical exports, it still has a long road ahead to leverage its potential at a global level. India’s own public-healthcare system seems in poor shape barring some of the states in the Southern and North-Eastern part of the country. It has one of the lowest doctor-to-population ratios in the world. The gains accrued have largely been due to the asymmetric, privatized nature of healthcare system in India-which has allowed the private sector to make inroads to other regional/and international partners in West Asia.

To project itself as a country practicing medical diplomacy through soft-power, if there is one country from which the Indian state can particularly learn from, is Cuba. Despite being a small-nation with much lower per-capita income as compared to many developed nations, Cuba’s public healthcare system is one of the best in the world. The Cuban State has practiced a humanitarian goal of medical-internalization as part of its diplomatic mission and earned wider reputation and praise by providing doctors and medicines at times of health-emergencies in many countries in need. It is medical teams sent in by the state, have also maintained a longer presence in health crises prone areas around the world with about 50000 doctors stationed abroad by 2018. In the recent past too, Cuba sent the largest team of medical doctors to West Africa during the Ebola epidemic.

The Communist state also adopted a diplomatic strategy of making bilateral agreements with nations like Venezuela and Argentina, to pay for provided medical services, while also ensuring medical aid to nations like Haiti and Algeria in times of war and other emergencies. Consequently, this arrangement by the year 2018 brought about \$11 billion in (medical) exports from Cuba while also financing its humanitarian efforts.

VII. CHALLENGES OF INDIAN PHARMACEUTICAL INDUSTRY DURING COVID19

- There is unavailability of working staff in the Manufacturing units/warehouses, which lead to lot of unfulfilled utilization of warehouses and manufacturing units during the pandemic period.
- There is also Non-Availability or disrupted supply of raw materials and packing materials.
- Absence of seamless internet data connectivity with staff is creating issues in day to day work. As with all industries, implementing effective and robust cyber security measures is a challenge in the work from home scenario.
- Marketing staff facing issues in generating sales as they are unable to conduct in-person sales calls as they used to in the Pre-COVID scenario.
- The companies that have operations across the globe are facing issues with regard to their operations and staff in those locations. Every country has devised its own policies and guidelines.
- Although the supply disruptions have eased to a large extent still, there are difficulties regarding availability and movement of labour. While most of the pharmaceutical companies had resumed operations they have been running at reduced capacities due to these challenges.
- Beside these challenges there are also various regulatory and validation requirements to be fulfilled by the pharmaceutical companies.
- Assuming that the country takes all the necessary precautions ahead and keeps the infection curve trajectory more flattened, India has a good chance to come out on the better side of the crisis with lesser deaths and rate of infections. And that offers India a window of opportunity in this crisis particularly to the Pharmaceutical Companies.

VIII. CONCLUSION

In a post-corona virus world, healthcare would emerge as a major focal point of attention for many nations across the world. Along with the significance to R & D in pharmaceuticals, appropriate planning to reduce the socio-economic burden. And, in a reordered version of globalisation, global public goods like healthcare security will attract nations to seek partners with more comparative advantage in providing for: essential drugs; medical expertise for treatment, and in-state capacity-building for medical-aid and service to other nations as required. The improvements in the Pharmaceutical sector will undoubtedly improve the Indian pharma's global image and popularity. But very small companies may find themselves under stress and could become a source of the additional capacity that the larger players with deeper pockets are looking at. Some companies that are seeing increased demand for their portfolio and have also started incentivizing employees especially in the production function who are supporting plant operations during this COVID-19 pandemic period. However, like all others sectors, pharmaceutical companies too are deploying methods of "trimming the fat", revisiting capital expenditure, looking at renegotiating rentals, looking for new sources of incomes from owned assets as well as using digital mechanisms for meetings and conducting business.

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