

STUDY ON PHARMACEUTICAL INDUSTRY

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EXECUTIVE SUMMARY

The pharmaceutical business and the sale of drugs are essential to India's economic growth. It serves as a source for numerous drugs, medications, and their intermediates as well as other pharmaceutical formulations, making it one of India's most developed industries. Over 350,000 people are employed by the Indian pharmaceutical business, along with an estimated 400,000 doctors and 300,000 chemists. By volume (production), it is among the top five nations and contributes around 10% of the world's output.

Active pharmaceutical ingredients, or APIs, and formulations are two main categories into which the goods produced by the Indian pharmaceutical sector can be divided. The self-sufficient pharmaceutical sector in India is anchored by the bulk drug industry, which has a major impact on raising peoples' standards of health. Around 60% of India's \$14.5 billion in pharmaceutical exports in 2010 came from the bulk medication industry. Exports of bulk pharmaceuticals have increased steadily over the past five years, with a CAGR of about 15%. Improvements in the bulk medications segment are anticipated to have a significant and far-reaching impact on the overall competitiveness of the Indian pharmaceuticals industry, given its current and anticipated future contributions. The pharmaceutical sector makes a considerable economic contribution to municipal, state, and federal economies. recognising the high-value, high-paying, and revenue-generating jobs that this sector contributes to state economies.

REVIEW OF THE LITERATURE

Academics and researchers have examined the Indian pharmaceutical business in great detail. Several studies have concentrated on different facets of the industry, including its contribution to the economy, growth potential, regulatory environment, export potential, and R&D capabilities. The pharmaceutical sector in India is the third largest in the world in terms of volume and ranks thirteenth in terms of value, according to a report by the Indian Brand Equity Foundation (IBEF). The sector accounts for 1.4% of India's overall GDP in 2020, which is a substantial contribution to the country's GDP. Moreover, the industry is one of the biggest employers in India with a workforce of about 4.5 million workers.

The pharmaceutical sector in India has grown as a result of various factors. The availability of a skilled staff is one of the most important variables. India boasts a sizable pool of gifted scientists and researchers who have helped the sector grow. The supportive regulatory environment is a further crucial element. Tax incentives and financing for R&D are just two of the strategies the Indian government has put in place to encourage the industry's expansion. Also, the Indian pharmaceutical industry has developed a reputation for providing high-quality medicines at a competitive price, making it a desirable location for international pharmaceutical firms.

OBJECTIVE OF STUDY

The goal of a study on the Indian pharmaceutical sector may change based on the extent and particular focus of the investigation. Nonetheless, some typical goals that researchers may want to accomplish in their study on the Indian pharmaceutical sector could include:

- to evaluate the Indian pharmaceutical industry's present situation, patterns in growth, and possibilities for the future.
- to determine the main factors influencing the development of the Indian pharmaceutical business.
- to analyse the Indian pharmaceutical industry's competitive environment, including the key companies and their business models.
- to investigate the laws, policies, and regulations that control the Indian pharmaceutical industry's regulatory environment.

NEED AND RELEVANCE

The research, discovery, and development of new medications are actively governed by policy, which is actively influenced by the pharmaceutical industry. In addition to this commitment, the pharmaceutical sector must actively participate in making sure that the right patients get access to cutting-edge scientific developments. To guarantee patient access to high-quality care, the different stakeholders engaged in drug research and introduction, including the pharmaceutical industry, clinicians, advocacy organisations, and regulatory agencies, must cooperate. While concerns like medication acquisition prices and marketing are frequently given a lot of attention, this may skew impressions of the industry's commitment to providing patients and healthcare systems with critical new medicines. For thousands of years, pharmaceuticals have been used to treat ailments. Plants and herbal remedies were used in the early days of medicine to treat a wide range of illnesses and injuries. Now, a multi-billion dollar global industry exists to show a compound's safety and efficacy and get it from the lab into the hands of people who need it. These businesses work tirelessly to develop cutting-edge new therapies that make people's lives better and longer.

RESEARCH METHODOLOGY

This study combines quantitative and qualitative techniques to assess the Indian pharmaceutical sector. The study is based on secondary data gathered from a variety of sources, including academic journals, industry publications, and IBEF reports. Using descriptive statistics like mean, standard deviation, and regression analysis, the data was examined.

DATA ANALYSIS AND INTERPRETATION

To find trends and patterns in the Indian pharmaceutical business, the data was examined. The analysis's findings are shown in the paragraphs below.

CONTRIBUTION TO ECONOMY

In 2020, 1.4% of the country's GDP was attributable to the pharmaceutical industry in India, which has made a major economic contribution. With exports making up over 50% of the industry's sales, the sector has also helped India's export earnings.

GROWTH POTENTIAL

Throughout the past three decades, the Indian pharmaceutical business has shown continuous growth, with a compound annual growth rate of 12.89% from 2015 to 2020. The industry is anticipated to continue expanding quickly, propelled by reasons like the rising prevalence of lifestyle diseases, rising healthcare costs, and increased demand for generic medications.

REGULATORY FRAMEWORK

The Central Drugs Standard Control Organization (CDSCO) and the Drug Controller General of India are two government organisations that oversee the Indian pharmaceutical business (DCGI). By encouraging innovation and industrial competition, the regulatory system aims to safeguard the safety and effectiveness of medications.

EXPORT POTENTIAL

With exports making up around 50% of the industry's income, the Indian pharmaceutical business has a considerable export potential. The industry is well-represented in a number of important markets, including the US, Europe, and Africa.

R&D CAPABILITIES

The Indian pharmaceutical industry has made considerable R&D advancements thanks to investments from a number of businesses. Also, the sector has formed alliances with major pharmaceutical corporations to work together on R&D projects.

SWOT ANALYSIS OF INDUSTRY

Strength

India has substantially lower production costs and more effective medicinal products than other countries. India has a strong industrial sector. Due to technological improvements, India currently has a highly skilled workforce. India's marketing and distribution system are also on the higher end in terms of communication development. Furthermore, the sector is bolstered by its diverse ecosystem.

Weakness

The paucity of investment in research and development must be addressed by industry and government despite the easing of the FDI restrictions. A significant problem is the lack of industry and academic collaboration. Health care costs pale in comparison to other household expenses. The pharmaceutical industry faces a competition from the production of cheap, inferior medicines.

Opportunities

Notwithstanding these issues, the business is expected to grow quickly due to more favourable export prospects. Moreover, a surge in generic drug exports to industrialised countries is projected. India has a great deal of potential to develop become a centre for global clinical trials. India is also projected to have a significant impact on pharmaceutical research and development on a worldwide scale (R&D).

Threats

The product patent policy is one of the biggest obstacles facing the domestic business. The industry must increase its R&D efforts in order to counter this threat. The Drug Price Control Order issued by the Indian government put undue pressure on product price, which had an impact on the profitability of pharmaceutical firms. The new excise duty structure, which is MRP-based, poses a threat to small firms.

HUMAN RESOURCE PLAN

Even without considering human resource management, the pharmaceutical business has faced many challenges recently. There are several problems, including the vast population, increasing demands, and an increase in the burden of chronic illnesses like cancer and cardiovascular disease. At the same time, worry is growing over the number of individuals who have numerous illnesses. It puts pressure on the healthcare system in terms of the type and volume of demand, healthcare costs, and pharmaceutical development.

In addition to it, there are additional difficulties brought on by risks from emerging infectious diseases and unusual diseases, such as Covid-19. Returning to the topic of human resources, the pharmaceutical industry is a knowledge-intensive, technologically advanced sector that relies heavily on its workforce. either in terms of product creation and discovery or sales and distribution. Other organisations have also chosen an outsourced business model as a result of ongoing layoffs, corporate mergers and acquisitions in the pharmaceutical industry, and an increase in remuneration standards. The issue of this industry's high staff churn rate is another one.

Employee motivation and retention depend on employee engagement via performance-based incentives, benefits, and awards. Pharma ventures require patience and time to produce outcomes. It's typical practise in this sector to shut down businesses that aren't profitable. Everyone who engages in long-term study projects or endeavours will find it demotivating to observe no outcomes. Keeping staff motivated and engaged is yet another difficulty that HR professionals in the pharmaceutical sector encounter.

One important problem is employee attrition. A pharmaceutical salesperson's job is particularly demanding in terms of hitting targets, and they are liable to lose motivation easily. Understanding and identifying their motivating elements is essential, as is making an attempt to implement a successful staff retention strategy.

MARKETING PLAN

The pharmaceutical market is highly regulated, subject to extensive administrative monitoring, has intricate payment systems, and involves several decision makers, all of which restrict how pharmaceutical products and services can be marketed. The value of innovation for pharmaceutical companies themselves cannot be overstated: novel pharmaceuticals provide consumers (patients and payers) wins in the form of therapeutic advantages over current therapies, while generic drugs offer consumers (patients and payers) gains in the form of lower costs.

Marketers must always be conscious of this. All of these factors highlight how crucial product differentiation is in both the B2C and B2B sectors. Therapeutic substitution, prescription trends, manufacturing advancements, and the goal-oriented pursuit of product exchange.

Every exchange necessitates the presence of at least two parties, at least two of whom are interested in gratifying their unsatisfied desires, at least three of whom have something of value to offer one another, at least four of whom are capable of communication and delivery. A pharmaceutical market's or submarket's research is a very difficult task. A pharmaceutical product or service's marketing strategy and budget are determined by defining its capacity, necessity, level of demand (and supply), and the motivations of the client segments.

IMPACT OF THE PANDEMIC ON THE INDUSTRY

The COVID-19 pandemic is anticipated to have global consequences based on current trends. It is possible to methodically identify areas of potential vulnerability, even though it is difficult to accurately predict the scale and spread of the Coronavirus disease, let alone its impact on international economics, politics, and society.

Strategy creators are confronting remarkable difficulties in funding wellbeing particularly in low-and centre pay settings. There are already strained and underfunded health systems in many places. The rising number of COVID-19 patients requiring medical attention as a result of the pandemic has further restricted them.

It is hard to foresee how global economies will be impacted throughout the next few months, when a purported saw-toothed recuperation is in play. The second or third wave of the virus is already affecting many regions, necessitating new restrictions and lockdowns. The virus has had different effects on different industries. As leisure time is spent closer to home or at home, this has had a significant impact on consumer-focused industries like the hospitality and travel sectors. Given the role that 4G and 5G networks and devices play in connecting people when physical distance is a key requirement, technology companies have seen a resurgence. In contrast, businesses in the health and life sciences remained relatively unaffected by the virus. However, there are increasingly more indications of a slowdown in sales and the impact of currency exchange. Additionally, research and development (R&D) as well as the supply chain have both been significantly impacted.

STRIKING THE BALANCE BETWEEN GROWTH AND SECURITY

Finding a Balance Between Growth and Security The ultimate objective of government action is to promote security in the pharmaceutical industry without sacrificing growth, and there is a lot of momentum in favour of expanding collaboration between private companies and the Indian government. The Indian government should consider incentivizing partnerships with foreign multinational corporations (MNCs) in order to achieve sustainable growth without overcommitting federal funds, as this strategy has been empirically supported in India's own history.

Foreign collaboration and investment in the Indian pharmaceutical sector are lucrative due to three synergistic conditions. First, the Carlyle Group and PAG, two global private equity giants, have made record-breaking investments in the API and the pharmaceutical industry. Access to favourable and abundant financing is abundant due to clear private interest in revenue growth and government support and trends toward deregulation. Venture and M&A movement trebled from 2020 to 2021, closely following the PLI plans. By the end of 2022, the Indian pharma sector alone could see nearly \$4 billion in investment.¹¹ As

the pharmaceutical environment becomes more valuable, businesses will have more resources and more incentives to expand internationally, which will help India reach its growth goals.

CHALLENGES IN THE PHARMACEUTICAL COMPANY

1. Development in Technology

In the pharmaceutical sector in particular, technology is a disruptive factor. When new technology develop, patients can participate in their healthcare. Individuals can now easily access telemedicine, peer support forums, and a variety of wearable technology and apps. It has affected how healthcare is delivered and how customers interact with the company.

Drug businesses are looking for individuals who are knowledgeable about how technology may help people take back control of their lives. For businesses ready to use big data and machine learning insights and incorporate virtual and augmented reality in product testing and distribution, there is a tremendous opportunity. The upcoming pharma workforce must learn how to adjust to these new technologies as competitors become more creative and risk-friendly. To meet the demands of this new wave of technology advancements in Pharma, the challenge is to cultivate a workforce that is more technically competent.

2. Scarcity of Talent

Most pharmaceutical jobs involve extensive research and don't have set hours. To become an expert in their profession, a person needs years of experience. All pharmaceutical companies are competing for the best talent because there aren't enough trained workers and human resources in the health sector.

The greatest talent is attracted to companies with greater reputation and financial heft, whereas small to medium-sized businesses must make due with less. In non-pharmaceutical industries, recruitment for employment in research and development has increased recently. It produces prompt outcomes and rewards for the workers.

3. Retention

Pharmaceutical industries are subject to internal and external rivalry. A initiative or effort may be put in jeopardy or put on hold for a considerable amount of time until the next ideal candidate is found. One of the toughest issues facing the life sciences sector is finding and keeping talent. According to a Forbes article, many employees of large pharmaceutical firms are switching to fresh biotech firms.

4. Problems with Patent

Once approved by medicine regulators like the FDA in the United States and the EMA in the European Union, a successful pharmaceutical cannot be sold. Since the drug has already been patented, the innovative company will be the only one allowed to sell it until the patent expires. However, even though patents are typically issued for a period of twenty years in developed nations, the window of sales exclusivity will typically be much smaller and no longer than ten years. This is because, in order to safeguard its intellectual property, the innovative company must patent the medication well in advance of its first release. The innovative company must recoup all manufacturing and marketing costs, as well as all R&D costs associated with the drug(s) being sold and any other drugs that failed during development, within this brief period of ten years or less.

CONCLUSION

The research pharmaceutical sector is still plagued by issues, the biggest of which lacks obvious remedies.

- Even though it has the sole right to sell a new drug for the duration of the patent, increased regulation is driving up costs and delaying development, which shortens the time until a patent expires.
- An increase in top management teams' aversion to risk is one factor slowing the development of innovative medications.
- A reduced success rate for marketing authorization applications is a result of regulatory bodies' and patient populations' decreasing risk tolerance.
- Prices are under constant downward pressure as a result of cost challenges within national health care.
- The market share of generics is rising quickly.
- Although many believe that the existing research pharmaceutical business model is no longer viable, a superior one has not yet been developed.

Yet, we can be certain that the next generation of human pharmaceuticals will leave far fewer residues in the environment than those that arise from the use of existing medications because biopharmaceuticals are increasingly dominating drug-development pipelines.

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