CHAPTER 1

PHARMACEUTICAL INDUSTRY: AN OVERVIEW

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1.1 INTRODUCTION
The word “Pharmacy” is derived from the Greek word pharmakon it means medicines or drugs. Pharmaceutical is science based company. India’s work in science is very old. The record of Hindu medicines begins with the Atharva-veda it means Ayurveda. The name of chemistry is come from “Rasayana shastra” and which developed from two sources that medicines and industry.

Pharmacy was considered as an art of compounding and dispensing of medicines. Today sciences and technology is developing day by day and need of people is also increasing so a lots of progress has been made in profession of pharmacy. Pharmaceutical companies adopt changes very quickly.

The Indian pharmaceutical industry currently tops the charts amongst India’s science-based industries with wide ranging capabilities in the complex field of drug manufacture and technology. A highly organized sector, the Indian pharmaceutical industry is estimated to be worth $ 4.5 billion, growing at about 10 percent annually. It ranks very high amongst all the third world countries, in terms of technology, quality and the vast range of medicines that are manufactured. It ranges from simple headache pills to sophisticated antibiotics and complex cardiac compounds; almost every type of medicine is now made in the Indian pharmaceuticals industries.

The Indian pharmaceutical sector is highly fragmented with more than 20,000 registered units. It has expanded drastically in the last two decades. The Pharmaceutical and Chemical industry in India is an extremely fragmented market with severe price competition and government price control. The Pharmaceutical industry in India meets around 70% demand for bulk drugs, drugs intermediates, pharmaceuticals formulations, chemicals, tablets, capsules, orals and injectibles. There are approximately 250 large units and about 8000 Small Scale Units, which form the core of the pharmaceutical industry in India (including 5 Central Public Sector Units).

In the words of Richard Gerster, the famous economist and activist from Switzerland, Indian pharmaceutical industry can be defined as a success story
providing employment for millions and ensuring that essential drugs are available at affordable prices to the vast population of Indian sub-continent.

Health is defined both as cause and effect of economic development. Therefore, the pharmaceutical industry is specifically recognized in the UN Millennium Development Goals as an actor that can contribute to economic development. In addition, the pharmaceutical industry provides significant socio-economic benefits to the society through creation of jobs, supply chains, and through community development. The industry also plays an important role in technological innovation, which may reduce costs of economic activity elsewhere in the economy.

1.2 HISTORY
A man can escape from anything except diseases. Since the inception of human life diseases have become unwanted companions. But man is the cleverest animal on this universe along with other knowledge; he got the basic unit of life, the cell and its response to various chemicals, extracts of plants and developed various branches of treatments to cure diseases. They are Ayurved, Yunani, Naturopathy, Homeopathy etc. with the new inventions and R&D a new discipline of treatment came in medical treatment in which the use of pure chemicals started for curing diseases. This discipline of treatment was established and was known as “Alopathi”.

With the use of innovative instruments and study of knowledge of different disciplines of science this “pathi” has become popular by touching new heights in curing diseases and respectable position in medical science. With the acceptance of Allopathi the need for chemical drugs got an importance giving a green signal to the development of pharmaceutical products. In present era, pharma market has accelerated its growth and has kept all other pathies far behind.

In year 1811 the first chemist shop opened in India, by the young man Mr. Bathgate in Calcutta and in year 1910 this firm started manufacturing of tinctures and spirit. After hundreds years it started retail and dispensing business.
In year 1821 Smith Stanistreet and company was started as a small shop and in year 1918 it started its manufacturing business which was pure “Alkaloids” like strychnine and brucine.

In year 1901 a small factory Bengal Chemical and Pharmaceuticals in Calcutta (now known as Kolkata) as a small unit started by Acharya profulla Chandra Roy with a Capital of ₹ 25000/- in Calcutta. In year 1903 Prof T. K. Gajjar has opened a small factory in Mumbai in Parel and this leads to development of another manufacturing concern. In year 1907 which was the Alembic chemicals works ltd. in Vadodara. Prof. Gajjar has joined ventures with Shri A. S. Kotibhaskar and Raj Mitra B. D. Amin.

In 19th Century practically Drug industry was not exist in India. So that many things which are required by pharmaceutical were imported from U.K., France and Germany. After world war 1st situation is changed a few firm joined together with foreign firm for manufacturing of various types of pharmaceutical at a cheaper rate and to compete with imported drugs.

During 1939-1945 the world faced Second World War which changed the equation of world and had triggered the process of industrialization and economic growth. Industrialization changed the sticking of two old products. It gave way to many innovative things. A concept of better health was accepted by people gradually increasing the demand for healthcare products to cure diseases. During pre and post-independence periods, Indian pharma market was dominated by multinationals. The production of drugs was not initiated in India and our drugs requirements were mainly dependent on countries like England, France and Germany. In beginning years of independence many Indian companies were not inclined to venture in pharmaceutical. But after 1995 the Indian entrepreneurs had ventured in the field of pharmaceutical. Indian Drugs and Pharmaceuticals Ltd. (IDPL), Hindustan Antibiotic Ltd. (HAL), Alembic Chemicals, Ranbaxy, Sun Pharma, Cadila, Core Parenterals (now known as Core Health Care) and many more companies were established to capture the increasing Indian drugs market.
Since July 1991, government started economic reforms and LPG policy has opened up the horizons of the pharma industry resulted into unprecedented growth particularly in pharma industry and overall development of trade and industry in general in our country with the change in policies of the government more and more companies have come up in pharma industry due to the following favorable government policies like:

1. Restrictions on import of drug and intermediaries.
2. Licensing of import – export and production of drugs.
3. Putting drugs under price control.
4. Putting check on forex transactions.
5. Absence of patent law.

With these new government policies, new players from Indian market came to garner the benefits of new policies for pharma business and it gave an impetus to many companies in the establishment and growth of pharma business. In past, a man was unable to get the best treatment, what he gets in modern era for the treatment and curing of the diseases. A remarkable change has been bought by Allopathi treatment and is largely accepted by a common man.

The Indian pharmaceutical industry can be classified on the basis of management control as: multinationals (MNCs) and Indian companies. MNCs hold 40% of total organized market sector while 60% is accounted for public sector units and private limited companies of the country.

1.3 OVERVIEW

The Indian Pharmaceutical industry has been witnessing phenomenal growth in recent years, driven by rising consumption levels in the country and strong demand from export markets. The pharmaceutical industry in India is estimated to be worth about US $ 10 bn, growing at an annual rate of 9%. In world rankings, the domestic industry stands 4th in terms of volume and 13th in value terms. The ranking in value terms may also be a reflection of the low prices at which medicines are sold in the country.
The industry has seen tremendous progress in terms of infrastructure development, technology base and the wide range of products manufactured. Demand from the exports market has been growing rapidly due to the capability of Indian players to produce cost-effective drugs with world class manufacturing facilities. Bulk drugs of all major therapeutic groups, requiring complicated manufacturing processes are now being produced in India. Pharma companies have developed Good Manufacturing Practices (GMP) compliant facilities for the production of different dosage forms.

In addition to having GMP, WHO, several Indian companies have also been getting plant approvals from international regulatory agencies like US FDA, MCA (UK), TGA (Australia), MCC (South Africa). India possesses the highest number of US FDA approved manufacturing facilities outside the USA and currently tops in filing the Drug Master Files (DMF) with the US FDA. This has also facilitated the domestic industry to attract contract manufacturing opportunities in the rapidly growing generics market.

A paradigm shift occurred in the Indian pharmaceutical industry with India becoming a signatory to the WTO order, ushering in the Product Patent Regime. Earlier, with the enactment of The Patent Act, 1970, only process patent was applicable for pharmaceuticals.

With the introduction of the product patent beginning 01-Jan-05, which has now made India TRIPS compliant, the Indian market has become an attractive option for the introduction of research-based products. As a result, the Indian companies are now exploring new business models such as contract research, for drug and discovery research & development, as well as contract manufacturing.

However, it poses a challenge to the generics industry as it would no longer be able to freely continue with the production of generics of the new patented molecules without license/payment of royalty to the innovator company.
1.4 NATURE
One of Ralph Nader's goals when he ran for president was to stop corporate welfare. He figured if Congress was so thoughtful to cut welfare to mothers and children (less than 3% of the federal budget), then perhaps it was time to eliminate corporate welfare (greater than 17% of the federal budget).

Nader was quick to focus in on corporate welfare to the pharmaceutical industry, because the American people pay for drugs twice: first in funding the research to prove a drug is safe and effective, and then again when their doctor prescribes the drug, you pay at the pharmacy.

Now there is a lot of talk about conspiracy theories and doctors suppressing therapies and the FDA suppressing therapies, but whether or not there is a conspiracy are a moot point. There doesn't have to be a conspiracy. We have capitalism, a system in which every person has the right to grow up and make money. Every major corporation has the right to make as much money as possible, and for some reason, major corporations get more welfare than little corporations. Thus it must be assumed that large corporations are much more important than small corporations.

The pharmaceutical industry is an example of the worst parts of capitalism, capitalism at its least respectable low and capitalism at its most ludicrous high.

Pharmaceutical companies insure their profits by supporting medical schools and physicians. The pharmaceutical industry is the single largest supporter of medical schools. Thus, the schools teach the medicine that the pharmaceutical industry wants them to teach. Doctors get kickbacks for prescribing certain drugs.

And then there's the FDA. Former FDA Commissioner Dr. Herbert Ley stated: "The thing that bugs me is that people think the FDA is protecting them. It isn't. What the FDA is doing and what the public thinks its doing are as different as night and day."

1.5 SCOPE AND IMPORTANCE
Over the years pharmacy has grown in the form of pharmaceuticals sciences through research and development processes. It is related to product as well as to services.
The various drugs discovered and developed are its products and the healthcare it provides comes under the category of services.

Pharmacy involves all the stages that are associated with the drugs i.e. discovery, development, action, safety, formulation, use, quality control, packaging, storage, marketing, etc. This profession has a large socio-economic relevance to the Indian economy. In India this sector is among the future economy drivers. It is committed to deliver high quality drugs and formulations at an affordable price, so that majority of people can afford them.

This profession has a large socio-economic relevance to the Indian economy. In India this sector is among the future economy drivers. It is committed to deliver high quality drugs and formulations at an affordable price, so that majority of people can afford them. The transformation of the sector from conventional pharmacy to drug experts, which is both desired and necessary to reach the global standards, has already made commendable progress.

Liberalization, privatization and globalization (LPG) have helped the Indian pharmaceutical companies to achieve international recognition. It's remarkable to note that today several Indian pharma companies are approved by US FDA and are listed at NASDAQ.

The multibillion-dollar pharma industry grows mainly through knowledge wealth creation. This sector has transformed a lot over the years. The big pharma companies that were there about 15-20 years back are not in picture these days.

The analysis of Indian pharmaceutical sector shows that the innovative products, product life cycle management and marketing management steps taken by the pharma companies have led them to flourish. And the companies that refused to change their strategy lost the race. Cipla and Sun Pharma are two companies that are focused on new product development and have grown tremendously.
1.6 ADVANTAGE OF INDIA

Chart 1.1: Advantage of India

Source: BMI, Aranca Research 2016 revenue forecasts are estimates of BMI.

1.7 EVOLUTION OF THE INDIAN PHARMACEUTICAL SECTOR

Chart 1.2: Evolution of the Indian Pharmaceutical Sector

Source: Aranca Research.
1.8 STRENGTHS OF INDIAN PHARMACEUTICAL INDUSTRY
It needs to be emphasized at the outset that the pharmaceutical industry in India, almost uniquely, has not only performed exceedingly well in terms of production, domestic R & D, value addition, regional spread and diversification but also in contributing to better health for millions of people by being largely cost-effective and, hence, providing medicines at affordable prices. Moreover, the Indian pharmaceutical industry has been able to export its products to a number of countries where Indian medicines have been popular due both to their low cost and effectiveness.

The pharmaceutical industry today is in the front rank of India’s science-based industries, with wide ranging capabilities in the complex field of drug manufacturing and technology. It is a front-runner in the third world in terms of technology, quality and range of medicines manufactured. Almost all types of medicines – ranging from simple pain relieving pills to sophisticated antibiotics and complex cardiac compounds – are now made in the country. These have made India fairly self-sufficient in this field. A large domestic market and relatively inexpensive trained manpower have also enabled the country to emerge as a low-cost production centre. The Indian pharmaceutical industry has registered significant increases in capital investment over the years. It has also been a net export earner and a major source of employment.

1. Competent workforce
India has a pool of personnel with high managerial and technical competence as also skilled workforce. It has an educated work force and English is commonly used. Professional services are easily available. One of the reasons of the progress of Indian Pharmaceutical Industry is its relatively large resource of well-educated and trained scientist and engineers, compared to other developing countries, which enabled domestic companies to develop new methods to produce even complicated pharmaceutical products.
2. Cost-effective chemical synthesis
Its track record of development, particularly in the area of improved cost-beneficial chemical synthesis for various drug molecules is excellent. It provides a wide variety of bulk drugs and exports sophisticated bulk drugs.

3. Legal & Financial Framework
India has a 53 year old democracy and hence has a solid legal framework and strong financial markets. There is already an established international industry and business community.

4. Consolidation
For the first time in many years, the international pharmaceutical industry is finding great opportunities in India. The process of consolidation, which has become a generalized phenomenon in the world pharmaceutical industry, has started taking place in India.

5. Technologically Strong
Despite of severe criticism of Indian pharmaceutical industry by the foreign companies and the foreign media the fact remains clear that Indian Pharmaceutical industry has made noteworthy progress in the technological side of the industry. Looking to the limited resources available to the Indian firms and the low profit margin business, they have not spent enough money on R & D as they would have liked but some of the fine discoveries in the field of medicine has been made by the Indian scientists. This would be evident by the fact that the number of Indian patent applications has certainly increased, a large number having come from public sector organizations, notably, the CSIR and IITs. And a notable move was by the Council of Scientific Industrial Research, the apex national organisation, when its scientists were particularly encouraged to apply for patents and not just to publish scientific papers. This transformation of approach, it was argued by the CSIR director-general, has given Indian scientists an edge over their competing counterparts elsewhere (Jolly, 2001). As the debate on the proposed new patent legislation came to a hear, it was possible for those advocating the product-patent system to point to the definite rise in patent applications observed during the post- 1995 era – and this despite the significant presence of foreign firms in India.
6. Low cost of Production

One of the highlighting features of Indian pharmaceutical market is its low price. This low price situation is achieved by the extremely low cost of production. Plenty availability of labour at cheap rates and there is no shortage of highly skilled talented scientists in India, this has made the production significantly cheaper. India is a developing nation and majority of its population is middle-class and lower-middleclass income group, hence it was a challenge to provide medicines to this major population of the country, as such they cannot afford costly medicines and highly sophisticated medical treatment. Pharmaceutical industry of India has definitely contributed to the better health of millions of people of India by providing medicines at affordable prices.

Moreover, the Indian pharmaceutical industry has been able to export its products to a number of countries where Indian medicines have been popular due both to their low cost and effectiveness.

A large domestic market and relatively inexpensive trained manpower have also enabled the country to emerge as a low-cost production centre.

1.9 ACHIEVEMENTS OF INDIAN PHARMACEUTICAL INDUSTRY

Pharmaceutical industry in India, almost uniquely, has not only performed exceedingly well in terms of production, domestic R & D, value addition, regional spread and diversification but also in contributing to better health for millions of people by being largely cost-effective and, hence, providing medicines at affordable prices. Moreover, the Indian pharmaceutical industry has been able to export its products to a number of countries where Indian medicines have been popular due both to their low cost and effectiveness.

The phenomenal progress, technological capabilities, and cost and production efficiencies achieved by the Indian drug industry are demonstrated by the facts:

1. Indian researchers have developed more than a dozen new drugs in the past four decades and released in the market;
a. One of them is Guggulipid (a blood cholesterol reducing drug) extracted and purified from the plant Guggul (Commiphora Mukul).
b. Another such new drug developed by Indian Scientists from CDRI is Drug Memory Plus; this memory reinforcing drug contains Baculosides (a chemical extracted from family of the Brahmi plant).
c. NCL scientists have developed indigenous technology for extracting a cancer curing drug Vincristine from Sadabahar (Vinca Rosea) plants.

2. One of the very important medicines, Vitamin B6, which is required for many medicinal formulations as well as by food industries, was not earlier produced in sufficient quantity in India and it was imported till the 1980 at a price of US $ 1000 per kilogram. This was produced by only two producers, who were not ready to share the know-how of this product with India, but scientists at IICT took the challenge and in just two years of time they set up a factory for producing Vitamin B6. The result is, today the price of this chemical is US $ 80 per kilogram, and India has not just became self-reliant but she is also exporting this chemical. Same case is with the anti- AIDS drug AZT (also called zidovudine), once it was imported at a whopping price and today India is self-reliant in that very same drug, due to the development of the process by the scientists of IICT.

3. A very useful painkiller Paracetamol was once imported, but in 1960s the scientists of CDRI found out the new process of developing the drug.

4. Today world is looking to India as a major supplier of important drugs like Ethambutol, Metronidazole (used for diarrhea and other gastrointestinal infections), Tinidazole and Paracetamol.

5. After independence, India has acquired a strong hold over the biomedical research; following are the examples of its feat:
a. Jaipur foot, an entirely indigenous artificial limb-prosthesis that can be flexed just like a natural foot. This foot has lent support to thousands of handicapped to lead a normal life by freeing them from using rigid prosthesis.
b. The Chitra Heart Valve developed by the Sri Chitra Tirunal Institute of Medical Technology, Trivandrum is not only of world standard but is quite affordable and offers better chances of survival for patients of rheumatic heart disease.

c. Sri Chitra Tirunal Institute of Medical Technology has also developed disposable polymeric bags for storage and transport of blood. This bag has, besides reducing the risks of contamination, also helped easy transportation and storage.

d. DRDO scientists have developed biomedical stent which is used as a shunt during heart surgeries.

e. DRDO scientists have also developed a heart pace maker device.

f. Central Glass and Ceramics Research Institute, Kolkata has developed a hybrid hip-prosthesis using titanium metal and ceramic materials, is used in patients of arthritis who need hip replacement.

6. One of the major problems for India after independence is the Population Explosion, and thus the top most priority of the government was to slow down the population growth rate. CDRI scientists have proved their mite in this regard by developing a once-a-week contraceptive pill, now marketed as Saheli, which has the distinction of being the ONLY NON-STEROIDAL CONTRACEPTIVE PILL IN THE WORLD. Besides, being user-friendly (it is needed to take only once in a week instead of everyday as is the case with other pills), Saheli also protects women from developing breast cancer.

7. National Institute of Immunology, New Delhi, have come up with a vaccine developed from much revered Neem Tree which acts like a contraceptive. NII also has the distinction of producing the second immunological contraceptive, a vaccine based on HCG (a human hormone), which is now being tested on humans. A group of researchers at the Indian Institute of Science, Bangalore have developed a male injectable vaccine which has been found quite effective on monkeys.

8. In February 2001, CIPLA offered to supply one year course of the triple combination drug required for treatment of AIDS/HIV to countries in Africa, @ US $ 350, as against the patent holder’s price of US $ 10,000 to 12,000 for the same quantity of the same drug.
9. Even under the continuing process patent regime of Patent Act 1970, many of the national sector units like Ranbaxy, Dr. Reddy's Laboratories, CIPLA, Sun Pharma, Wokhardt, Zydus Cadila, J. B. Chem., and others have come out with original research on development of new drugs, delivery systems and even new molecules, acquiring patents in countries like USA and others.

10. Some of the multinational corporations have entered into arrangements with some of these Indian Companies for research or co-marketing such new products for other countries, confirming the value of such research.

11. The products of Indian manufacturers are accepted on WHO lists of essential drugs and also approved by regulatory authorities in USA, and EU countries.

12. Some of the Indian companies have set up their own associate companies or entered into collaboration for production, marketing or research in other countries; and that the exports of drugs have gone ₹1490 crores in 1992-93, to ₹8730 crores in 2000-2001 i.e. more than six times in 8 years.

13. Some of the other significant achievements include availability of most sophisticated medical facilities in every major city of India, like every other city of India has an Ophthalmologist using laser knives to mend defective sight. Transplantation of organs such as kidneys and hearts has also become common. Diagnostic techniques like Ultrasonography, Magnetic Imaging (MRI), CT scan and so on are available in major cities.
1.10 DEcadal PROGRESS OF PHARMACEUTICAL INDUSTRY

<table>
<thead>
<tr>
<th>Year</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>Formulations Multinational Companies based</td>
</tr>
<tr>
<td>1960</td>
<td>Formulations Indigenous production based on imported drugs</td>
</tr>
<tr>
<td>1970</td>
<td>Formulations + Bulk Production based on indigenously produced and drugs imported drugs</td>
</tr>
<tr>
<td>1980</td>
<td>Formulations + Bulk Production based on indigenous drugs mainly bulk drugs</td>
</tr>
<tr>
<td>1990</td>
<td>Formulations + Bulk Indigenous production serving domestic and bulk drugs export market</td>
</tr>
</tbody>
</table>

Source: Dr. Laxman Prasad, Research in Pharmaceutical Industry in India, A macro view 24th December 2001, www.phrmabiz.com

1.11 INDIAN PHARMACEUTICAL INDUSTRY

The Indian Pharmaceutical Industry is no less than a success story as it has provided employment for millions and made the drugs available to the vast population of the country at very affordable prices. The Indian pharmaceutical industry with a domestic market turnover of ₹ 18,000 Crores and growing at five percent as per the MAT - ORG September 2003 is poised for a paradigm shift. The Indian pharmaceutical industry has moved through several phases of ups and downs.

The evolution and growth of the Indian pharmaceutical industry has been largely driven by regulatory forces — the DPCO (Drug Price Control Order), which regulated the prices of bulk drugs and formulations, and the Indian Patent Act, which granted process patents but not product patents.

Pharmaceutical Business came into existence in India in the year 1901 when Bengal Chemicals and Pharmaceutical Company started its production in Calcutta. Since then there is no looking back and today India has become one of the leading pharmaceutical products manufacturing nation. This fact would become evident by the current scenario of the industry, wherein it is not just meeting the increasing demand of the huge population of the country, but also exporting the products to other developing and developed countries of the world including the USA. Starting from the humble beginning of repacking imported raw materials; the Indian
pharmaceutical industry has graduated to become a net foreign exchange earner, making its presence felt in the global pharmaceutical area. India is the fourth largest producer of bulk drugs and formulations in terms of volumes though not in terms of value. Indian drugs have the distinction of being the most competitive in terms of price causing much heartburn to the MNCs. In spite of the impressive statistics of the Indian pharmaceutical industry, our per capita consumption of drugs is one of the lowest in the world and only 30 percent of the population mostly in the urban areas has access to modern drugs. The shortcomings of the Indian pharmaceutical industry are in the fields of R & D and new drug discovery.

1.12 PHARMACEUTICAL IN INDIA

“Indian pharmaceutical industry in success story providing employment for million and essential drugs at affordable prices are available to the vast population of this Sub-continent”. – Richard Gerster

The Pharmaceutical industry in India is the world's third-largest in terms of volume and stands 14th in terms of value. According to Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, the total turnover of India's pharmaceutical industry between 2008 and September 2009 was US $ 21.04 billion. While the domestic market was worth US $ 12.26 billion. Sale of all types of medicines in the country is expected to reach around US $ 19.22 billion by 2012.

Exports of pharmaceuticals products from India increased from US $ 6.23 billion in 2006-07 to US $ 8.7 billion in 2008-09 a combined annual growth rate of 21.25%. According to Price Waterhouse Coopers (PWC) in 2010, India joined among the league of top 10 global pharmaceuticals markets in terms of sales by 2020 with value reaching US $ 50 billion. Some of the major pharmaceutical firms include Ranbaxy, Cipla, Sun Pharma, Cadila Healthcare and Piramal Healthcare.

The government started to encourage the growth of drug manufacturing by Indian companies in the early 1960s, and with the Patents Act in 1970. However, economic liberalization in the 1990s by the former Prime Minister P.V. Narasimha Rao and the then Finance Minister, Dr. Manmohan Singh enabled the industry to become what it is today. This patent act removed composition patents from food and drugs, and
though it kept process patents, these were shortened from a period of seven years to five years.

The lack of patent protection made the Indian market undesirable to the multinational companies that had dominated the market, and while they streamed out. Indian companies carved a niche in both the Indian and world markets with their expertise in reverse-engineering new processes for manufacturing drugs at low costs. Although some of the larger companies have taken baby steps towards drug innovation, the industry as a whole has been following this business model until the present.

India's biopharmaceutical industry clocked a 17 percent growth with revenues of ₹ 137 billion ($ 3 billion) in the 2009-10 financial year over the previous fiscal. Bio-pharma was the biggest contributor generating 60 percent of the industry's growth at ₹ 8,829 crores, followed by bio-services at ₹ 2,639 crores and bio-agri at ₹ 1,936 crores.

### Table 1.1: Lists of Top 10 Pharmaceutical Companies in India 2012

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of Companies</th>
<th>Net Profit (in ₹ Cr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sun Pharma</td>
<td>1927.98</td>
</tr>
<tr>
<td>2</td>
<td>Cipla</td>
<td>1123.96</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Reddy’s Laboratory</td>
<td>912.40</td>
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<tr>
<td>4</td>
<td>Lupin Limited</td>
<td>804.37</td>
</tr>
<tr>
<td>5</td>
<td>Cadila Healthcare</td>
<td>657.50</td>
</tr>
<tr>
<td>6</td>
<td>Jb Camicals</td>
<td>642.70</td>
</tr>
<tr>
<td>7</td>
<td>Divis Lab</td>
<td>545.97</td>
</tr>
<tr>
<td>8</td>
<td>GlaxoSmithKline</td>
<td>430.60</td>
</tr>
<tr>
<td>9</td>
<td>Torrent Pharmaceuticals Ltd.</td>
<td>311.25</td>
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<tr>
<td>10</td>
<td>IPCA Lab</td>
<td>280.17</td>
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**Source:** Dissertation of Mehul Mistry (2012), Department of Business Studies, Sardar Patel University, Vallabh Vidyanagar.
The Pharmaceutical Industry in India is The World’s Third-Largest in term of volume and stands 14th in terms of value. Here is a List of the Top 10 Pharma Companies Ranked on the basis of Net Profits of 2012.

1.13 PHARMACEUTICAL INDUSTRY TODAY

The number of purely Indian pharma companies is fairly low. Indian pharma industry is mainly operated as well as controlled by dominant foreign companies having subsidiaries in India due to availability of cheap labour in India at lowest cost. In 2002, over 20,000 registered drug manufacturers in India sold $ 9 billion worth of formulations and bulk drugs. 85% of these formulations were sold in India while over 60% of the bulk drugs were exported, mostly to the United States and Russia. Most of the players in the market are small-to-medium enterprises; 250 of the largest companies control 70% of the Indian market. Thanks to the 1970 Patent Act, multinationals represent only 35% of the market, down from 70% thirty years ago.

Most pharma companies operating in India, even the multinationals, employ Indians almost exclusively from the lowest ranks to high level management. Mirroring the social structure, firms are very hierarchical. Home grown pharmaceuticals, like many other businesses in India, are often a mix of public and private enterprise. Although many of these companies are publicly owned, leadership passes from father to son and the founding family holds a majority share.

In terms of the global market, India currently holds an unsecure 1- 2% share, but it has been growing at approximately 10% per year. India gained its foothold on the global scene with its innovatively engineered generic drugs and active pharmaceutical ingredients (API), and it is now seeking to become a major player in outsourced clinical research as well as contract manufacturing and research. There are 74 U.S. FDA-approved manufacturing facilities in India, more than in any other country outside the U.S, and in 2005, almost 20% of all Abbreviated New Drug Applications (ANDA) to the FDA are expected to be filed by Indian companies. Growth in other fields notwithstanding, generics is still a large part of the picture. London Research Company Global Insight estimates that India’s share of the global generics market will have raised from 4% to 33% by 2007. The Indian pharmaceutical industry has become the third largest producer in the world and is
poised to grow into an industry of $ 20 billion in 2015 from the current turnover of $12 billion.

1.14 INITIATIVES BY GOVERNMENT OF INDIA
1. Tax breaks are offered to pharma industry.
2. New procedure for the development drugs.
3. Proper clinical procedures.
4. New Millennium India Technology Leadership Initiative and the Drugs and Pharmaceuticals Research Programmed – Two schemes launched by the government.

1.15 TRENDS IN EXPORTS OF INDIAN DRUG AND PHARMACEUTICAL INDUSTRY

Table 1.2: CAGR of pharmaceuticals v/s overall foreign trade in India

<table>
<thead>
<tr>
<th>Period</th>
<th>India’s Pharmaceutical Exports</th>
<th>India’s Total Exports</th>
<th>India’s Pharmaceutical Imports</th>
<th>India’s Total Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-2009</td>
<td>22.859</td>
<td>15.816</td>
<td>16.626</td>
<td>6.262</td>
</tr>
</tbody>
</table>


As is evident from table 1.2, the growth rate of Indian pharmaceutical exports far exceeded that of imports from 1995 to 2012. Overall, India earned a surplus in this product category, although overall merchandise imbalance had shown a tremendous increase in the post – 2005 period. The compound annual growth rates (CAGR) of pharmaceutical exports witnessed is more than a 20% increase in the period starting from the commencement of the product patent regime until 2012.
Table 1.3: International Sales on Consolidated Basis

(₹ in crore)

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Consolidated Net sales</th>
<th>International Sales</th>
<th>Export as % of Net Sales 2010-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranbaxy Labs</td>
<td>8960.77</td>
<td>6771.74</td>
<td>75.6</td>
</tr>
<tr>
<td>Dr Reddy’s Labs</td>
<td>7236.80</td>
<td>5940.70</td>
<td>82.1</td>
</tr>
<tr>
<td>Lupin</td>
<td>5706.82</td>
<td>3983.08</td>
<td>69.8</td>
</tr>
<tr>
<td>Cipla</td>
<td>6130.31</td>
<td>3361.49</td>
<td>54.8</td>
</tr>
<tr>
<td>Sun Pharma</td>
<td>5721.43</td>
<td>2898.20</td>
<td>50.7</td>
</tr>
<tr>
<td>Wockhardt</td>
<td>3751.24</td>
<td>2709.91</td>
<td>72.2</td>
</tr>
<tr>
<td>Jubilant Life science</td>
<td>3433.40</td>
<td>2369.11</td>
<td>69.0</td>
</tr>
<tr>
<td>Cadila Healthcare</td>
<td>4464.70</td>
<td>2288.70</td>
<td>51.3</td>
</tr>
<tr>
<td>Biocon</td>
<td>2300.52</td>
<td>1956.79</td>
<td>85.1</td>
</tr>
<tr>
<td>Glenmark Pharma</td>
<td>3089.59</td>
<td>1955.83</td>
<td>63.3</td>
</tr>
<tr>
<td>Stride Arcolab</td>
<td>1695.84</td>
<td>1637.67</td>
<td>96.6</td>
</tr>
<tr>
<td>Plethico Pharma</td>
<td>1535.20</td>
<td>1367.22</td>
<td>89.1</td>
</tr>
<tr>
<td>Piramal Healthcare</td>
<td>2509.86</td>
<td>1280.58</td>
<td>51.0</td>
</tr>
<tr>
<td>Divi’s Labs</td>
<td>1307.11</td>
<td>1204.95</td>
<td>92.2</td>
</tr>
<tr>
<td>Aurobindo Pharma</td>
<td>4381.48</td>
<td>1112.06</td>
<td>25.4</td>
</tr>
<tr>
<td>Torrent Pharma</td>
<td>2121.97</td>
<td>1101.57</td>
<td>51.9</td>
</tr>
<tr>
<td>Ipca Laboratories</td>
<td>1882.54</td>
<td>1025.18</td>
<td>54.5</td>
</tr>
<tr>
<td>Dishman Pharma</td>
<td>990.84</td>
<td>911.56</td>
<td>92.0</td>
</tr>
<tr>
<td>Orchid Chemicals</td>
<td>1781.79</td>
<td>725.85</td>
<td>40.7</td>
</tr>
<tr>
<td>Shasun Chemicals</td>
<td>799.42</td>
<td>676.78</td>
<td>84.7</td>
</tr>
<tr>
<td>Panacea Biotec</td>
<td>1143.78</td>
<td>610.44</td>
<td>53.4</td>
</tr>
</tbody>
</table>

Source: Dissertation of Mehul Mistry (2012), Department of Business Studies, Sardar Patel University, Vallabh Vidyanagar.
1.16 REGULATORY AUTHORITY IN INDIA

To comply with rules and regulations requirement by pharmaceutical profession some Regulatory Authorities is appointed to regulate market.

Chart 1.3: Regulatory Control of Pharmaceutical Industry
1.17 ASSOCIATION OF PHARMACEUTICAL IN INDIA
Pharmaceutical association in professional association of pharmacists in India, with 10,000 members spread across the nation. It operates through 17 states branches and more than 33 local branches. Pharmaceutical association as being member of drug technical advisory board in India, it is also engaged in advising the Govt. on matter of professional importance.

Followings are various associations in India.
1. Indian Drug Manufacturers Association (IDMA)
2. The Organization of Pharmaceutical Producers of India (OPPT)
3. The Bulk Drug Manufacturers Association (BDMA)
4. The Confederation of Indian Pharmaceutical Industry (SSI)

1.18 SWOT ANALYSIS
SWOT analysis refers to strength, weaknesses, opportunities and threats. These have been discussed in brief as under:

Strengths
• Net exporter of Bulk Drugs.
• India enjoys the advantage of low cost & high skill in process development.
• The cost of research in India is much lower than compared to any other nation.
• Indian has the third largest scientific pool in the world.
• In volume terms, Indian consumes 8-10 % of the world’s volume.
• The pharma industry has reached maturity stage.
• There is high potential for the generics in the use and European markets. And the governments worldwide showed a bullish trend in their national health care budgets.
• Many pharma companies have increased their expenditures on R & D. These companies are alembic Shawn chemicals, Ind. swift laboratories and J. B. Chemicals.
• Over and above the R & D up gradation the Indian companies have gone for high profile acquisitions and marketing tie ups. Examples are zydus Cadillac
acquisitions of French generic drug manufacturer Al Pharma and its acquisition of German Remedies Torrent is also seeking for acquisition in the U. S. Market.

- There has been a trend of Indian pharma companies to acquire brands from MNCs.
- The entry strategy of Indian pharma companies who are planning to set shop in Europe will be through acquisition rout which will help companies to start with a readymade marketing infrastructure and certain market share.
- Zydus Cadillac acquisition of Al pharma France, the French affiliate of one of the world’s largest genetic companies will also help the pharma sector to serve the entire European market.

**Weaknesses**

- Though India accounts for 1/6th of world’s population it accounts only 1.6% of the world’s values of pharmaceutical consumption.
- Price control and changes in drug policies adversely affect the pharma sector.
- Research and Development expenses are on higher side and small companies do not afford it. Moreover, it is a continuous process requiring huge expenses and time consuming too.
- Research institutions are very few and there is lack of coordination with pharma industry.
- Industry size is very small and not viable for large investments.
- The basic and petrochemical industries which are the main supplier of raw material for pharma industry do not give adequate support to the industry.
- Supplier industry is fragmented.
- The customers are mainly diverted by the doctors and drug choice is with the doctors.
- Price sensitive customers are opting to purchase substitute from the market.

**Threats**

- Many drugs will be going off patent by the year 2005 and the Indian companies can take advantage of the situation.
- Only 30% of the population has access to modern medicines. There is vast scope to acquire more customers in the market.
• Possibility of export of drugs and pharmaceuticals is more as these are identified as thrust areas of export by the Government of India.
• India’s market share is less than 1% in terms of value in the global market. Indian pharma companies can pay its attention to increase its exports.
• Indian companies can emerge as major bulk drug suppliers to the world.
• Multinational companies are eager to enter the Indian markets through joint ventures and Indian companies can avail its benefit.
• Pharma products are mainly used to save life. Indian companies can produce quality lifesaving drugs and can get good market and reputation.
• Technology is fast changing and becomes obsolete and hence pharma products are subject to change.
• Different custom tariff increases the cost of indigenously produced bulk drugs and sometimes its cost is higher than the imported bulk drug.
• Exports of bulk drugs are subject to many changes in the international market.
• The labour and others costs in china are so low that it can become serious threat to the industry.
• The commutative approach of multinational companies at global level can affect the Indian companies.

Considering the strength of Indian pharma companies in respect of production and technology and rising production and exports, India has high potential to achieve higher position in global market for this, it should focus attention to go for using competitive technology, low cost of production and achieve high quality standards to face the competition in global market.

Indian pharma companies are on the crossroad of growth and are reaching international levels in production and marketing. It can restructure its units to ensure that at least dozen of companies succeed on the path of globalization and can become multinationals in a true sense in their operations.

It is true that market share of pharma companies is insufficient and insignificant but if they pay their attention to join hands with major players in global market through tie-ups. Joint ventures a fair and just share in the global market can be achieved.
Due to various diseases affecting human life the Indian companies can produce innovative products to meet the challenges by using the strengths of major players in the global market and can achieve global excellence.

Only sky is the limit for achieving success and touches the heights in progress. Indian companies with excellent knowledge of its youth and industry can play freely in international market by promising to provide high quality products at competitive price.
1.19 PROFILE OF SELECTED PHARMACEUTICAL COMPANIES IN INDIA

1.19.1 CADILA HEALTHCARE LIMITED (HERE AFTER USED AS CHL)

Introduction
The company was incorporated on the 15th May, 1995 as a private limited company and thereafter converted into public limited company on 21st June, 1996. Pursuant to the scheme of Arrangement and Amalgamation approved by the Gujarat High Court, the company has issued 1, 48, 84, 423 equity share of ₹ 10 each to the shareholders of Cadila group of companies.

CHL is 5th largest pharmaceutical company in India and is a flagship company of the Ahmedabad based Zydus Cadila Group. It basically deals with pharmaceuticals, diagnostics, herbal products, skin care products and OTC products.

CHL possess a market share of 3.85% with a turnover of about $ 290 ml. The pharmaceutical products of the company comprise of human formulations, veterinary formulations and bulk drugs. CHL gained came into power separately from Zydus Cadila Group on May 15, 1995 which went public on 17th July, the same year. The consumer products of CHL include sugar free a low (calorie based table top sweetener) a variety at skin care products of Everyuth and Nutralite. The drugs products at CHL are found in various forms such as tablets, powders and granules, liquids, dry syrups, capsules, injections and ointments. In 2007, the company launched 39 new products in the Indian market. CHL has received a range of important certifications which include Medicines Control Council of South Africa and United States Food and Drugs Administration. The pharmaceutical Medicines Control Council of South Africa estimates around $ 1 bn and the United States Food and Drugs Administration unit trades benzonatute tablets and naproxen tables in a variety of range. The company is headed by Mr. Pankaj Patel who is the Chairman and Managing Director of the company. CHL has a subsidiary and 2 joint venture companies which are popularly known as Zydus Atlanta and Sarabhai Zydus centre’s around animal healthcare and is also known to be one at the most leading animal healthcare farms in India.

**Activities of Cadila**

The company has adopted the model of performing organisation with self-reliant strategic business units. The various strategic business units function as self – managed profit centres. The Zydus Group is structured into the following strategic business units:

- Manufacturing (Pharma): Manufacturing operations of pharmaceuticals formations.
- Marketing (Pharma): Marketing and distribution of pharmaceuticals information.
- Bulk – drug: Bulk – drug manufacturing activities at the plant located in Ankleshwar.
- International Marketing: Exporting the company is product worldwide.
- Aqrovet: Manufacturing and Marketing of veterinary drugs, feed supplement and agriculture products.
- Pathline: Manufacturing/Marketing of diagnostic products.
- Cosmetics: Manufacturing and Marketing of skincare cosmetics and other OTC products.
- Phytosurge: Manufacturing and Marketing of ayurvedic and herbal medicine.
- Zymed: Marketing of Medical Electronic Product.

**Company’s Strategies**

Short – term strategies:

- Focus on branded generics growth in the domestic market.
- Leverage existing process synthesis and reverse engineering capabilities.
Medium – term strategies:

 Step up formulations export/ establish overseas operations in attractive export markets.
 Target generic markets in developed countries.
 Focus on the domestic OTC markets.

Long – term strategies:
 Seek attractive options for new drug discovery and development.
1.19.2 RANBAXY LABORATORIES LIMITED (HERE AFTER USED AS RANBAXY)

Background
Ranbaxy Laboratories Limited (Ranbaxy), India’s largest pharmaceutical company, is an integrated, research based, international pharmaceutical company, producing a wide range of quality, affordable generic medicines, trusted by healthcare professionals and patients across geographies. Ranbaxy today has a presence in 23 of the top 25 pharmaceutical markets of the world. The company has a global footprint in 46 countries, world-class manufacturing facilities in 7 countries and serves customers in over 125 countries. In June 2008, Ranbaxy entered into an alliance with one of the largest Japanese innovator and generic pharmaceutical powerhouse. The combined entity now ranks among the top 20 pharmaceutical companies, globally. The transformational deal will place Ranbaxy in a higher growth trajectory and it will emerge stronger in terms of its global reach and in its capabilities in drug development and manufacturing.

History
Ranbaxy was incorporated in 1961 and went public in 1973. For the year 2010, the company recorded Global Sales of US $ 1868 Mn. The company has a balanced mix of revenues from emerging and developed markets that contribute 50% and 44% respectively.

In 2009, North America, the company’s largest market contributed sales of US $ 660 Mn, followed by Europe garnering US $ 272 Mn. and Asia clocking sales of US $ 468 Mn.

Products
Using the finest R & D and Manufacturing facilities, Ranbaxy Laboratories Limited manufactures and markets generic pharmaceuticals, value added generic pharmaceuticals, branded generics, Active Pharmaceuticals and Intermediates (API). Ranbaxy diverse product basket of over 5,000 SKUs available in over 125 countries worldwide encompasses a wide therapeutic mix covering s majority of the chronic and acute segments. Its robust performance in Cardiovascular, Central Nervous
System, Respiratory, Dermatology, Orthopaedics, Nutritionals and Urology segments, clearly indicates that the company has strengthened its presence in the fast–growing chronic and lifestyle disease segment.

Top 10 products are Valacyclovir, Simvastatin, Co – Amoxyclav, Ciprofloxacin and Combinations, Amoxycillin and Combinations, Isotretinoin, Ketorolac Tromethamine, Loratadine and Combinations, Ginseng + Vitamins, Cephalexin, Atorvastatin and Combinations.

**Company’s Strategies**

- Generic Drugs
- Patent Medicines
Background
Biocon is a fully integrated healthcare company that delivers innovative biopharmaceutical solutions. From discovery to development and commercialisation, it has the defining science, cost–effective drug development capabilities and significant manufacturing capacity to move ideas to market.

Leveraging India’s globally competitive cost base and exceptional scientific people resource, it is advancing in–house R & D programs, while also providing custom and clinical research services to international pharmaceutical and biotechnology majors through its subsidiary companies, Syngene and Clinigene.

Biocon has rapidly developed a robust drug pipeline, led by monoclonal antibodies and several other molecules at exciting stages in the biopharmaceutical value chain.

With the successful commercial launch of its first anti–cancer drug and several promising discovery partnerships in the clinic, it remains committed to scaling new heights in frontier science and achieving new milestones in affordable medicine.

History
Biocon’s Founding Day - the start of a biorevolution in India. Over the years, Biocon has evolved from an enzyme-manufacturing company into a fully integrated biopharmaceutical enterprise. Today, we leverage a formidable combination of proprietary fermentation technologies and research skills to develop affordable therapy for unmet medical needs. Biocon India is incorporated as a joint venture between Biocon Biochemicals Ltd. of Ireland and an Indian entrepreneur. (November 29, 1978).

Products
In India strategy is to develop market presence all its products. It is currently present in four main therapeutic areas – Diabetology, Cardiology, Nephrology and Oncology. Oral Insulin (Diabetes), Anti–EGFR (Oncology), Anti CD6 (Oncology/Inflammatoty/ Autoimmune), Targeted Immune Conjugates (Oncology), Anti CD20
(Oncology/ Immunology) Insulin Analogs – Lispro, Aspart (Diabetes), Recombinant Human Insulin Glargine (Diabetes), GCSF, EPO (Oncology).

Company’s Strategies
- Innovation – LED Strategy
- Licencing and Developing proven molecules
- Shown positive signs and demonstrable results
- To achieve annual revenues of $ 1 billion
- Biogenetic insulin & monoclonal antibody lunch
- Fully integrated business model
- Build bio – similar therapeutic protein franchise
1.19.4 AVENTIS PHARMA LIMITED (HERE AFTER USED AS AVENTIS)

Background
Aventis Pharma (APL) was incorporated on May 1956 as Hoechst Fedco Pharma. Later the name was changed to Hoechst Pharmaceuticals, Hoechst India and Hoechst Marion Roussel. Sanofi-aventis is one of the world's leading pharmaceutical companies, and its 100% subsidiary, Hoechst GmbH together hold 50.12 percent of its paid-up.

History
Sanofi was formed in 2004 when Sanofi-Synthélabo (created from 1999 merger of Sanofi and Synthélabo) acquired Aventis (the result of the 1999 merger of Hoechst and Rhône-Poulenc).

Sanofi was founded in 1973 by the French oil company Elf Aquitaine, when it acquired the pharmaceutical group Labaz. Sanofi expanded through a combination of international acquisitions and internal product development epitomized by the launch of its first major product, Ticlid. Sanofi entered the American market in 1994 with the acquisition of Sterling Winthrop. Innovation remained centre stage and in 1986 the prestigious Prix Galien was awarded for Sanofi’s work on the anti-coagulant heparin and in 1987 for the anti-platelet drug Ticlid.

Synthélabo was formed in 1970 with the merger of two French pharmaceutical laboratories, the Laboratories Dausse (founded in 1834) and the Laboratories Robert & Carrière (founded in 1899).

Aventis was created in 1999, via the merger of the French company Rhône Poulenc and Hoechst Marion Roussel. Hoechst’s history mirrors the expansion of the chemicals industry. Hoechst strengthened its existing drug-development engagement with the 1974 acquisition of Roussel-Uclaf, followed by its merger with the American pharmaceutical company Marion Merrell in 1995. As a result, Aventis had global reach and a strong foundation in innovative life science technologies. The company was one of the first to invest in the emerging “new wave” technologies of genomics, immunology and gene therapy.
Rhône-Poulenc was created in 1928 when it was active in chemicals, textiles and pharmaceuticals. In the 1990s the company acquired the American pharmaceutical company Rorer (in two steps, 1990 and 1997), the vaccine laboratory Pasteur Mérieux Connaught (1994) and the British pharmaceuticals company Fisons (1995) to become an important global player in pharmaceuticals.

Since 2004, Sanofi has developed as a diversified global healthcare company using innovation to meet the needs of patients throughout the world.

Today, the core strengths of Sanofi comprise a worldwide presence, market leadership in vaccines with sanofi pasteur, major biological products and a strong and long-established presence in emerging markets. Company business activities also include consumer healthcare products, generics and animal health products.

**Products**
Sanofi India Limited in India provides medicines for the treatment of patients in several therapeutic areas: cardiology, thrombosis, oncology, diabetes, central nervous system, internal medicine and consumer healthcare.

List of direct links to sections:
- Cardiovascular Diseases
- Cardiovascular Diseases – Onsite range
- Thrombosis
- Diabetes
- Diabetes – Onsite range
- Oncology
- Respiratory System
- Central Nervous System
- Dermatology
- Analgesics
- Anti - infectives
- Bone and Joint
- Gastrointestinal Disorders
- Consumer Healthcare
Company’s Strategies

- Improve the quality of healthcare practices in rural India
- Improving healthcare access is to make quality medicines available at affordable prices for rural India patients
1.19.5 GLAXOSMITHKLINE PHARMACEUTICAL LIMITED (HERE AFTER USED AS GSK)

Background
GlaxoSmithKline – one of the world’s leading research – based pharmaceutical and healthcare companies – is committed to improving the quality of human life by enabling people to do more, feel better and live longer.

With opportunities in India opening up, GSK India is aligning itself with the parent company in areas such as clinical trials, clinical data management, global pack management, sourcing raw material and support for business processes including analytics.

GSK's best-in-class field force, backed by a nation-wide network of stockists, ensures that the Company's products are readily available across the nation. GSK has two manufacturing units in India, located at Nashik and Thane as well as a clinical development centre in Bangalore. The state of art plant at Nashik makes formulations while bulk drugs and the active pharmaceutical ingredients are manufactured at Thane.

History
Established in the year 1924 in India, GlaxoSmithKline Pharmaceuticals Ltd. (GSK Rx India) is one of the oldest pharmaceuticals company and employs over 3,500 people. Globally, the company is a £28.4 billion, leading, research–based healthcare and pharmaceutical company. In India, it is one of the market leaders with a turnover of ₹2080 crore and a share of 5.1%. At GSK, our mission is to improve the quality of human life by enabling people to do more, feel better and live longer. This mission drives it to make a real different to the lives of millions of people with its commitment to effective healthcare solutions.

Products
It manufactures products related to Analgesic, Anti – Infective, Anti – Inflammatory, Anti – Parasitic, Cardiovascular, Dermatology, Diabetes, Endocrine, Gastrointestinal, Gynaecology, Immunosuppressant’s, Nutritional, Respiratory, CNS (Central
Nervous System), Oncology, Vaccines. The GSK India product portfolio includes prescription medicines and vaccines. Its prescription medicines range across therapeutic areas such as anti–infectives, dermatology, gynaecology, diabetes, cardiovascular disease and respiratory diseases.

The company is the market leader in most of the therapeutic categories in which it operates. GSK also offers a range of vaccines, for the prevention of hepatitis A, hepatitis B, invasive disease caused by H. influenzae, chickenpox, diphtheria, pertussis, tetanus, rotavirus, cervical cancer and others.

Company’s Strategies

- Special focus on the speedy implementation of the project to substitute the sugar with artificial sweeteners to significantly reduce the calorie content of the formulations and simplify the processes used for manufacturing of all Liquid Oral products in a phased manner is being planned.
- The department is planning to implement SMS Technology (mass encryption technology) for major products like Augmentin on commercial scale as an anti-counterfeit measure.
1.19.6 SUN PHARMACEUTICAL INDUSTRIES LTD. (HERE AFTER USED AS SUN PHARMA)

Background

It is an international specially pharma company, with a large presence in the US and India, and a footprint across 40 other markets. In the US, which is our largest market, we have built a strong pipeline of generics, directly and through our subsidiaries Caraco and Sun Pharmaceutical Inc. Taro add strong dermatology range to this portfolio.

In India and rest of the world markets, its brands are prescribed in chronic therapy areas like cardiology, psychiatry, neurology, gastroenterology, diabetology etc. we are market leaders in specially therapy areas in India.

History

Sun Pharma began in 1983 with just 5 products to treat psychiatry ailments. Sales were initially limited to two states in Eastern India. Sales were rolled out nationwide in 1985. Products for cardiology were introduced in 1987, and Monotrate, one of the first products launched then, continues to be sold even today. Important products in Cardiology were later added; several of these introduced for the first time in India, and these brought patients the latest treatments at a sensible cost, a belief it has always lived by. Realizing the fact that research is a critical growth driver, it established its first research centre, SPARC, in 1993 and this created the base for strong product and process development that enables growth in the subsequent years.

Sun Pharma was listed on the main stock exchanges in India in 1994; and the ₹ 55 crore issue of a ₹ 10 face value equity share offered at a premium of ₹ 140/- was oversubscribed 55 times. The minimum 25% that was required under the regulations then for listing was offered to the public, the founder’s family continues to hold a majority stake in Sun Pharma.
Products
Inca – Cernos Injection (Hypogonadism), Ovurelix (Infertility treatments), Afdura (BPH).
Solares – Lesuride (Gastric prokinetic), SomprazFast (Proton pump inhibitor),
Arian – Rozawel EZ (Cholesterol reducer), Riobant (Obesity), Prolomet AM (Antihypertensive), Fibomet (Antidiabetic with lipidlowering agent),
Avior – Ranozex (Antianginal), Aztor EZ (Cholesterol reducer),
Sun – Riosity (Obesity), Lofecam (Pain management), Lactihep (Osmotic laxative),
Pantocid (Fast Peptic ulcers),
Spectra – E2 (Postmenopausal),
Ortus – Zemosal (Inflammatory bowel disease), Dynolap S (Antiallergic), Sunpatrop (Corticosteroid),
Synergy – Sulpatac (Antipsychotic), Dicorate (Antiepileptic),
Avesta – LotepredT (Ophthalmic, corticosteroid – antiinfective - combination),
Symbiosis – Quipine – SR (Antipsychotic), Levipil Injection (Antiepileptic),
Aravon (Cerebral infarction), Nexipride Antipsychotic.

Company’s Strategies
• Partnership and Collaboration as an integral part of our business strategy.
• The company is planning to focus on identifying products which will help it grow in limited competition markets.
• Sun Pharma’s strategy to grow business on the back of acquisitions has stayed concurrent with its earlier strategy.