CHAPTER -1

OVERVIEW OF PHARMACEUTICAL COMPANIES
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CHAPTER - I

OVERVIEW OF PHARMACEUTICAL COMPANIES

This research work includes comparative study of Pharmaceutical Industry related to corporate governance. So, researcher want to try to studied the concept of Pharmaceutical Industry.

1.0 Introduction

Looking to the features of Indian population like huge size, majority of lower income group, lees personal budget for medical treatment, adverse climatic condition etc., it is very important that they get quality medical treatment and medical products, not only that but affordable prices. Indian pharmaceutical industry has not only performed exceedingly well in terms of production, domestic R&D, value addition, regional spread and diversification but also provided employment for millions and also in contributing to better health for millions of people by being largely cost-effective and, hence providing medicines at affordable price. Moreover, the Indian pharmaceutical industries has been able to exports its products to a number of countries where Indian medicines have been popular due both to their low cost and effectiveness. Thus Indian pharmaceutical industry is rapidly globalizing making it important for Indian pharmaceutical companies to ensure their practices match those of the best pharmaceutical industry in the world. Therefore the governance of the pharmaceutical companies is significantly important compared to other companies.

A sound corporate governance culture enforces better discipline upon corporate management which in turn, can hold the given company to increase the shareholder’s value. The Kumar Mangalam Birla committee’s recommendations on various aspects of company management are applicable and being followed in pharmaceutical company’s management. These recommendations are both mandatory and non mandatory.

Today in India, Pharmaceutical Industry rank's first of India's science -base industries with wide ranges of capabilities in the complex field of drug manufacture and technology. The industry is estimated to be worth $4.5 billion, which is growing
at 8-9% annually. It is one of the best and highly organized sectors. The sector specializes in terms of technology, quality and range of medicines manufactured, the product of the industry ranges from simple headache pills to sophisticated antibiotics and also complex cardiac compounds almost every type of medicine is now made indigenously pharmaceutical industry promotes the sustainable development in the vital field of medicines by boosting the quality producers and many units approved by regulatory authorities in USA and UK. The Companies associated with this sectors which are international have stimulated assisted and spearheaded the dynamic development in the past 53 years and helped to put India on the pharmaceutical map of the world.

The industry deals in life-and-death issues, and its products not only relieve illness, but can often improve the quality of life. In addition to the life-giving aspect, the composition of products usually consists of highly toxic chemicals, which, when mixed discriminately, can cause serious health problems and even death. Since public health is of concern to all governments, the pharmaceutical industry is heavily regulated on the national level worldwide. This regulation takes the form of prior approval in order to market a new product and in some countries the establishment of a price for the product.

The growth of Indian Pharmaceutical Industry has grown tremendously since 2008-09 in term of exports. The Indian Pharmaceutical Industry has grown from a humble Rs. 1500 Crore turnover in 1980 to approximately Rs. 100611 in 2009-10.¹ The Pharmaceutical products account for 8% of the global Pharmaceutical sales and India is the fifth largest producer of bulk medicines in the world. In 2001, the value of India's exports of medicines approached US $1.7 billion.

1.1 Kinds of Pharmaceutical Industry

At the international level the pharmaceutical industry is divided in to two kinds of firms, the innovative firm and the generic firm (producer of generic drugs.)²

The first the innovative or patent-protected firms rely heavily on patent protection. These firms believe that in order to carry old the intensive research required to produce new products patent protection is essential. As a result of the
extensive research and cost to produce a patent-protected drug. Patent-protected firms tend to be located in highly developed and industrialized countries. Not all research efforts are successful. It is only a small fraction that reaches the market. It is through the period of exclusivity provided under the patent, generally twenty years from the date of filing, that the firm can recoup its research and development (R & D) costs to continue new and innovative research. Actually, the effective term of the patents is more like 14-15 years due to delays in the patent approval process and in obtaining rights to market the new drug. These firms are dependent on patent protection and are reluctant to introduce new products in countries that deny such protection. Because the patent grant provides a period of exclusivity, the patent owning firm can establish a higher price for the product since no competition is allowed. This is true when patent protection exists, even in contrives where the government regulates the price of the product.

The second the generic pharmaceutical firm, manufactures and markets pharmaceutical products that are not subject to patent protection. In countries with patent protection, generic firms come in to their own at the expiration of the patent. At such time the technology is in the public domain (as referred in us) and any one is free to manufacture the product. Generic products are subject to some government regulation before any sales can be made (in the united states the manufacturer must demonstrate to the satisfaction of the Food & Drug Administration (FDA) that the generic version is the bio-chemical equivalent of the patented product).

Generally speaking one the generic drug appears on the market it will be available at the lower cost than the original patented version. Often, several generic products will appear on the market within the same timeframe, thus causing even larger price reduction. In countries lacking pharmaceutical patent protection, the entire industry could said to be generic. In such countries, the profile of the industry will include firms that may manufacture, internationally used drug, which are in the public domain in the country of origin. In such a case, the industry is similar to the generic firm in the United States. However, many firms in countries that do not recognize pharmaceutical product patents manufacture products that are still under patent protection in the country of origin, thus diluting the value of the patent. This practice is viewed negatively by the country providing patent protection and is often characterized as piracy of counterfeiting by the firm whose patent is not being
recognized. Yet it is perfectly legitimate and legal in the country where the drug is being manufactured and sold.

The Pharmaceutical Research Manufacturers Association (PHRMA) located in Washington, Dc is a trade association representing the interests of the innovative or patent-protected manufacturers of pharmaceuticals. It mission: is to help the research-based pharmaceutical industry successfully meet its goal of discovering, developing and bringing to market medicines to improve human health, patient satisfaction, and the quality of life around the world, as well as to reduce the overall cost of health care.  

1.2 Classified the production of pharmaceutical Industry

Be it anywhere in the world, a pharmaceutical company, producing pharmaceutical products will be engaged in basically two types of products:

(a) **Bulk Drugs**, which is the therapeutic molecule (molecules are the bulk drugs that are the active component in any pharmaceutical product) in powder form in the drugs, in other words chemicals having therapeutic value and used far production of pharmaceutical formulations.

(b) **Formulations**, which is the final compound. Formulations can be tablets, injections and syrups or in the form of plasters where the therapeutic drug is absorbed through the skin. In other words formulations are medicines ready for consumption by patients.

1.3 Indian Pharmaceutical Companies

The history of Indian Pharmaceutical market in 1970's was almost non-existent, Today, India has gained immense importance and carved a niche for it self in the Pharmaceutical domain in fact, it has emerged as a big mart for the Pharmaceutical industry. In today's world, Indian Pharmaceutical Industry ranks 4th in term of volume and 13th in term of value. For example it might be anything like formulations, bulk drugs generics, Novel Drug Delivery Systems, New Chemical Entities or Biotechnology, etc Indian Companies are dominating in the market place, which was traditionally manned by MNC's. In 1930, in Calcutta the first
Pharmaceutical Company called Bengal Chemicals and Pharmaceutical works, which still is today as one of 5 government-owned drug manufacturer was started. In the 1960’s the government started to encourage the growth of drug manufacturing by Indian Companies and also passed the Patent Act in 1970. India currently holds a modest 1 to 2% share, but it has been growing of approx 10% per year in terms of global markets. India with its innovatively engineered generic drugs and Active Pharmaceutical ingredients (API), has gained a good foothold in the global science and today India is seeking to major player in outsourced clinical research as well as contract manufacturing and research.

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 arena. 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 per cent 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.

➢ **Size of the Pharmaceutical Industry**

There are 20,000 laboratories in India's Pharmaceutical Industry and the Scale of the Pharmaceutical market amounts to Euro 5.3 billion. It has been expending in a tremendous manner in the last two decades. The leading 250 Pharmaceutical companies control 70% of the market with market leader holding
nearly 7% of the market share. It is an extremely fragmented market with server price competition and government price control.

Around 10% of the Country's demand for bulk drugs, drug intermediates, Pharmaceutical formulations, Chemicals, tablets, capsules, orals and injections is met by home production. There are about 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).

➢ **Growth of the Pharmaceutical Industry:**

The growth of Pharmaceutical industry in India is US $3.1 billion with growing rate at 14% year. As India is most advanced countries among the developing countries.

In India the output of Indian Pharmaceutical industry increase to Rs. 260 billion in the financial year 2002, which accounts for 1.3% of the global Pharmaceutical sector. The bulk drugs accounts for Rs. 54 billion (21%), the remaining Rs.210 billion (79%) for formulations, imports were Rs.20 billion while exports were Rs.87 billion in year 2002. There is huge expension of Domestic Pharma Sector which estimated US$11.72 billion (Rs.55454cr.) in 2008-09 from US $6.88 billion (Rs.32574Cr.) in 2003-04. India exports its Pharma Product to various countries around the globe including highly regulated markets of USA, Europe, Japan and Australia.

More than 85% of the formulations produced in the country are sold in the domestic market. Over 60% of India's bulk drug production is exported and Import of bulk drugs have slowed down in the recent years.

The global Pharmaceutical market grew rapidly in the 1990s and in the early 2000s, spurred primarily by market demand in North America and Europe However, with impending patent expiries, declining R &D productivity, increasing regulatory and pricing pressures, growth in these markets have been slowing down. As a result, Pharma Companies are looking for new avenues of driving growth and ways to improve operational efficiencies. In this context, emerging markets represent a potential growth driven for the industry its contribution to the growth of the global pharma market increased from eight percent in 2003 to 40 percent in 2010.
Consequently, global pharmaceutical MNCs have adopted prudent strategies to future expand their footprint in emerging markets such as Brazil, Russia, India and China.\(^5\)

The Indian pharmaceutical Industry witnessed rapid growth and transformation of past 40 years. From a more volume of just Rs. 10 cores in 1947, the industry registered a sales turnover of about US $ 5.5 billion in 2004 with annual growth rate of about 17\%. The flexible provisions of the patent Act of 1970 and other supportive policies of the Government of India played an instrumental role in the growth and development of this industry.\(^6\)

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 has moved through several phases of ups and downs. The evolution and growth of the Indian pharmaceutical industry has been largely driven by regulatory force 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.\(^7\)

1.4 **Features of Indian Pharmaceutical Industry**

In the 21\(^{st}\) century that is said as “century of life science " The Indian Pharmaceutical industry is the one that is expected not only to contribute to improvement of the level of medical treatment for health of citizens but also to largely contribute to economic growth. Because of such industry, competition is accelerated in the world scale.

(1) **Self Sufficient to meet the domestic demand:**

Looking to the features of Indian population, like, huge size, majority of lower income group, less personal budget for medical treatment, adverse climatic conditions, etc, it is very important that they get quality medical treatment and medical treatment and medical products, not only that but at affordable prices. Indian Pharmaceutical Industry is called a success story, because it has served the population of the country in spite of the above limiting features.
The Pharmaceutical Industry in India meets around 70% of the country's demand for bulk drugs, drug intermediates, pharmaceutical formulations chemicals, tablets, capsules, orals and injectibles. More than 85% of the formulation produced in the country are sold in the domestic market. India is largely self-sufficient in case of formulations some life saving, new generation under-patent formulations continue to be imported, especially by MNC, which then market them in India. Overall, the size of the domestic formulations market is around Rs. 160 bn and it is growing at 10% p.a.

The pharmaceutical industry today is in the first rank of India's wide ranging capabilities in the complex field of drug manufacturing and technology. It is a first - 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.

(2) Gigantic size

Over 20,000 registered pharmaceutical manufacturers exist in the country. The leading 250 pharmaceutical companies control 70% of the market with leader holding nearly 7% of the market share. Over the four decades between 1969 - 70 and 1998 - 99 the number of business units engaged in the production of drugs and pharmaceutical grew nearly ten times from 2257 to 02253 (OPPI, 1998 -99). Indian Pharmaceutical Industry is one of the largest and most advanced among the developing countries.

The data shown in the following table, will give an idea of how the size of the industry has increase over the period of 30 to 35 years.
Table: 1.1

Growth of Pharmaceutical Industry in India [Rs, In Cr.]

<table>
<thead>
<tr>
<th>Particulars</th>
<th>1999-00</th>
<th>2001-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Investment</td>
<td>2,500</td>
<td>100611</td>
</tr>
<tr>
<td>Production of Bulk Drugs</td>
<td>3,777</td>
<td>20053</td>
</tr>
<tr>
<td>Production of Formulation</td>
<td>15,960</td>
<td>75860</td>
</tr>
<tr>
<td>Import</td>
<td>3,441</td>
<td>17325</td>
</tr>
<tr>
<td>Export</td>
<td>6,631</td>
<td>33095</td>
</tr>
<tr>
<td>R &amp; D Expenditure</td>
<td>320</td>
<td>1044(About3%)</td>
</tr>
</tbody>
</table>

Source: www.pharmaceutical-drug-manufacturers.com / pharmaceutical industry

(3) High Volume of Production

Between 1999-00 and 2001-10 the production of formulation rose from a value of Rs. 1.5 million to almost Rs. 139 billion, and that of drugs from Rs. 180 million to more than Rs. 31 billion.11

Table: 1.2

Production of Bulk Drugs and Formulation in India [Rs. Million]

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bulk Drugs</td>
</tr>
<tr>
<td>1980-81</td>
<td>2400</td>
</tr>
<tr>
<td>1990-91</td>
<td>7300</td>
</tr>
<tr>
<td>1994-95</td>
<td>15180</td>
</tr>
<tr>
<td>1998-99</td>
<td>31480</td>
</tr>
<tr>
<td>2000-01</td>
<td>55053</td>
</tr>
<tr>
<td>2004-05</td>
<td>96780</td>
</tr>
<tr>
<td>2009-10</td>
<td>143556</td>
</tr>
</tbody>
</table>

(4) Low Prices

Another significant factor characterizing India's pharmaceutical market is its extremely low drug prices, among the lowest in the world. In a country of almost one billion people, price controls served as a means of ensuring that even the poorest has access to drugs. A price Comparison of certain drugs is illustrated in the following table of U.S. prices and Indian price.

Table: 1.3
Price Comparison of Drugs in U.S. & India.

<table>
<thead>
<tr>
<th>Brand Name / Generic Name</th>
<th>Dosage</th>
<th>U.S. Price</th>
<th>Indian Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Per Tablet ($)</td>
<td>Per Tablet($)</td>
</tr>
<tr>
<td>Prilosec / Astra Merck omeprazole</td>
<td>20 mg</td>
<td>3.76</td>
<td>0.09</td>
</tr>
<tr>
<td>Prozec / Eli Lilly Fluoxetine</td>
<td>10 mg</td>
<td>2.28</td>
<td>0.63</td>
</tr>
<tr>
<td>Zocor / Merck Simvastain</td>
<td>10 mg</td>
<td>2.07</td>
<td>0.21</td>
</tr>
<tr>
<td>Zqntao / Glaxo- Well come Renitidine</td>
<td>150 mg</td>
<td>1.72</td>
<td>0.02</td>
</tr>
</tbody>
</table>

(Source : Investing in the Indian pharmaceutical Industry. The American Graduate school of international management, professor Robert Tancer and student srinivas Josyuls, 1999 Thunderbird)

1.5 Strengthen Steps of Indian Pharmaceutical Companies

The Indian Pharmaceutical sector is highly fragmented with more than 20,000 registered units. It has expanded drastically in the last two decades. The leading 250 Pharmaceutical Companies control 70% of the market with market leader holding nearly 7% of the market share. It is an extremely fragmented market with severe price competition and government price control.

The Pharmaceutical industry in India meets around 70% of the country's demand for bulk drugs intermediates, Pharmaceutical formulations,
chemicals, tablets, capsules, orals and injectibles. There about 250 large units and about 8000 small scale units and 20,000 registers units all over India.¹²

Technologically strong and totally self-reliant, the Pharmaceutical industry in India has low costs of production, low R & D costs, innovative scientific manpower, strength of national laboratories and increasing balance of trade. The Pharmaceutical Industry with its rich scientific talents and research capabilities, supported by Intellectual property protection regime is well set to take on the international market.

1. **Competent workforce**
   India has a parallel of personnel with high managerial and technical competence as also skilled workforce. It has an educated workforce and English is commonly used professional service are easily available.

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 provided a wide variety of bulk drugs and exports sophisticated bulk drugs.

3. **Legal and Financial Framework**
   India has a 65 years old democracy and hence has a solid legal framework and strong financial markets. There is already an established international industry and business community.

4. **Information & Technology**
   India has a good network of world-class educational institutions and established strengths in Information Technology.

5. **Globalization**
   The Country is committed to a free market economy and globalization. Above all, it has a 70 million middle class market, which is continuously growing.
6. **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.

Indian Companies need to attain the right product-mix for sustained future growth. Core Companies will play an important role in determining the future of many Indian Pharmaceutical Companies in the post product-patent regime after 2005. Indian Companies, in an effort to consolidate their position, will have to increasingly look at merger and acquisition options of either companies or products. This would help them to offset loss of new product options, improve their R & D efforts and improve distribution to penetrate markets.

Research and development has always taken the basic seat amongst Indian Pharmaceutical Companies. In order to stay competitive in the future, Indian Companies will have to refocus and invest heavily in R & D.

The Indian Pharmaceutical Companies also needs to take advantage of the recent advances in biotechnology and information technology. The future of the industry will be determined by how well it markets its product to several regions and distributes risks, its forward and backward integration capabilities, its R & P, its consolidation through merger and acquisitions, co-marketing and licensing agreements.

**1.6 Key Characteristics of the Indian Pharmaceutical Companies**

The Indian Pharmaceutical market is marked by the following significant features:

- Self-reliance displayed by the production of 70% of bulk drugs and almost the entire requirement of formulation within the country.
- Low Cost of production.
- Low Research and Development Cost
- Innovative Scientific Manpower
- Excellent and world-class national laboratories specialization in process development and development of cost effective technologies.
• Increasing balance of trade in Pharmaceutical sector.
• An efficient and cost effective source for procuring generic drugs especially the drugs going off patent in the next few years.
• An excellent centre for clinical trials in view of the diversity in population.

1.7 Drug Price Control Order (DPCO)

The central government remained a key influence and a controlling factor in the direction of India's pharmaceutical industry. The inward-looking policies adopted by politicians since independence had slower foreign direct investment into industries of India, and pharmaceutical were no exception. The Drug Price Control Order (DPCO) was established in 1985, enabling the government to dictate drug prices for 143 basic drugs, with the purpose of ensuring the availability of medicines at low prices, price controls disrupted free-market forces further because there was no control over the price of any raw materials needed for manufacturing drugs. In 1999, there were 76 bulk drugs under the DPCO and approximately 260 formulations that use this bulk ingredients.\(^\text{13}\)

In a country of almost one billion people, price controls served as a means of ensuring that even the poorest had access to drugs. A drug would be controlled if its overall turnover exceeded $1.05 million or if there were less than five bulk drug manufacturers or ten formulation manufacturers of that specific drug. However, with the liberalization of the industry, the government felt strongly encouraged to dissolve the price controls in favor of natural market economic pricing.

1.8 Domestic pharmaceutical Companies Play a Larger Role in Global Pharmaceutical Market

India is among the most significant emerging markets for the global pharmaceutical industry, given that it will feature among the world's top-10 sales markets by 2020 currently, it is regarded as one of the fastest-growing Pharmaceutical industries globally, primarily driven by a large population, evolving patient demographics, increasing health care expenditure, growing urbanization, rising life expectancy and active private-sector participation.
The Indian Pharmaceutical Industry has been able to claim a share in the
global market by leveraging its strengths and enhancing its regulatory and technical
maturity. Formulations manufactures in India Constitute 20% of the global generics
market by value and the overall share of Indian manufactured formulations is as high
as 46% in the generics segment in the emerging markets. However, with the onset of
the patent regime, the traditional reverse engineering capabilities of Indian
pharmaceutical companies are no longer helpful, as they would not be able to
replicate the patented product and launch it is the domestic market. Hence, going
forward, India would be required to leverage its strengths is supply of low cost
medicines across the world and invest in newer areas to drive growth. Opportunities
exist ranging from the low-value added segment, to the high value New Chemical
Entity (NCE) / New Biopharmaceutical Entity Segment. Thus, Domestic Companies
can look forward to purse all these opportunities and build capabilities to conduct
drug discovery and in house development.

1.9 Expenditure on Research and Development

Research and development is the key factor to the future of pharmaceutical
industry. The pharmaceutical advances for considerable improvement in life
expectancy and health all over the world are the result of a steadily increasing
investment in research. The pharmaceutical industry is such an industry which is very
much dependent on research and development and this industry is a typical case
where the Research and development and profit are closely interrelated. Ironically, the
shortcomings of the Indian pharmaceutical industry are in the field of R&D and new
drug discovery R&D has always taken the back seat amongst Indian pharmaceutical
companies.

Few firms from these groups have also ventured onto product R&D. It was
first started by Dr. Reddy's laboratory and Ranbaxy as early as 1995 and today there
are almost 15 companies engaged in product R&D. Major players such as Ranbaxy,
Dr. Reddy's and Torrent, are recognizing that to remain viable once product patent
laws took effect, they must begin developing their own molecules to compete
effectively in India and abroad.
There is considerable scope for collaborative Research and development in India. India can offer several strengths to the international R&D community. These strengths relate to availability of excellent scientific talents who can develop combinatorial chemistry, new synthetic molecules and plant derived candidate drugs.

Research and Development in the pharmaceutical industry in India is critical to find answers for some of the diseases peculiar to a tropical country like India and also for finding solutions for unmet medical needs. Industrial Research and Development groups can carry out limited primacy screening to identify lead molecules or even candidate drugs for further in vivo screening, pre-clinical pharmacology, toxicology animal and human pharmacokinetics and metabolic studies before taking them up for human trials. In such collaborations, harmonized standard of screening can be assured following established good laboratory practices.

When it comes to clinical evaluation at the time of multicenter trials, India would provide a strong base considering the real availability of clinical materials in diverse therapeutic areas. Such active collaboration will be mutually beneficial to both partners. According to a survey by the pharmaceutical outsourcing management Association and Bio / Pharmaceutical outsourcing Report, Pharmaceutical companies are utilizing substantially the services of contract Research organization (CROs). Indian pharmaceutical Industry, with its rich scientific talents, provides cost-effective clinical trial research. It has an excellent record of development of improved, cost-beneficial chemical syntheses for various drug molecules. Some MNCs are already sourcing these services from their Indian affiliates.

The Pharmaceutical and Biotechnology Industry is eligible for weight deduction for Research and Development expense up to 150%. These Research and Development companies will also enjoy tax holiday for 10 years. A promotional research and Development fund Rs. 150 crores is set up by the Government to promote research and Development in the Pharmaceutical sector. 16

Although the Domestic R&D intensity has improved during the latter part of the 1990s, the level of investment has remained very low (pradhan,2002 : 650). Moreover, much of this investment has been made by a few dominant pharmaceutical firms, such as Rambaxy, Lupin, Dr. Reddy's Labs and Nicholas piramal. That
majority of Indian pharmaceutical units, mostly small, have no resources to invest in R&D remains the hard fact.

### 1.10 Adequate Government Support

In the Last 10 years, the Government of India (GOI) has aggressively adopted prudent strategies to boost the country's healthcare industry. From granting 100% Foreign Direct Investment (FDI) in the drugs and Pharma sector to establishing various pharma SEZs across the country, a range of initiatives have further strengthened the Indian Pharma Industry. Moreover, the GOI is providing incentives to encourage investment in the pharma sector.

In Aug. 2010, the GOI announced its plans to set-up a $639.56 million venture capital (CVC) found to give impacts to drug discovery and strengthen the country's Pharma infrastructure. Both domestic and MNC Pharmas are expected to leverage these initiatives to expand their operations in the country.

### 1.11 GOI Supported to Pharmaceutical Vision 2020

The department of Pharmaceutical has prepared "Pharma Vision-2020" aimed at making India one of the leading destinations for end-to-end drug discovery and innovation. It envisages meeting this objective by building top-notch infrastructure for talent and research, encouraging Public-Private Partnership (PPP) models, offering financial incentives to encourage and incubate innovation and shaping a favorable regulatory environment. The GOI also aims to position India among the top five Pharmaceutical innovation hubs by 2020, with one cutoff every 5 to 10 drugs discovered world-wide by 2020 originating from the country.

The government has made crucial changes to the original draft to ensure big Pharmaceutical MNCs can't dictate medicine prices arbitrarily. The most important change in the Act is a tighter definition of what can be patented. Now only a product, including drugs, which makes a technical advance or has economic significance, can get a patent, some of the changes that bill proposes include giving manufacturing rights to Indian companies, which currently produce drugs patented abroad after paying a 'reasonable' royalty for them.
The bill also restricts a Pharmaceutical company from renewing its patent every time it expires, citing a new use for the same drug. It gives companies more grounds and time to challenge a patent claim even before it's granted. The government will also have the right to issue a compulsory license to an Indian company to produce a patented product if the patent holder is charging abnormally high rates or increase of a national emergency.

The GOI's long term vision is to provide quality and affordable health care services to all classes of Indian Society Consequently, the GOI Plans to cover at least 50% of the country's population under health insurance by 2020, compared with the current average of 15%.

### 1.12 Growing Pharmaceutical Companies

The Indian Pharmaceutical Industry is highly fragmented, but has grown rapidly due to the friendly patent regime and low cost manufacturing structure. Intense competition, high volumes and low prices characterize the Indian domestic market starting from the 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 arena. India is the fourth largest producer of bulk drugs and formulations in terms of volumes though not in terms of value.

The number of pharmaceutical firms in India multiplied dramatically from 3000 in 1977 to over 24,000 in 1997. By 1999, India's pharmaceutical market was growing at 15% per year in terms of sales revenues. Which was among one of the highest growth rates in the world, According to Dr. Parvinder Singh chairman of Ranbaxy, one of India's largest pharmaceutical companies, India's pharmaceutical sales were expected to grow to $ 8 to $ 10 billion by the year 2005  

The Indian pharmaceutical market is also very fragmented. The top 400 produce 80 percent of the drug requirements of the country, and the remaining 20 per cent is met by the rest, with a good share accounted for by small scale manufacturers. Twenty per cent of the drug produced by the small - scale manufacturers is supplied to 70 per cent of the population, as these manufacturers largely depend upon the supplies to the government agencies. This is mainly due to the regulatory provision requiring the government to purchase on a 'rate contract' basis. The market is dominated by low
-end pharmaceutical products. Antibiotics constitute 24 per cent of the drugs sold in the country as compared to 13 per cent in the developed world cardiovascular treatments, the largest selling therapeutic category in the developed market (16 per cent of annual drug sales), constitutes only six per cent of the Indian market.

Over the years the drugs and pharmaceuticals sector has emerged as a net foreign exchange earner, a status it has maintained since 1988-89. The average annual growth rate of exports between 1980-81 and 1998-99 was about 33 per cent as against 22 per cent in the case of Imports.19

1.13 Latest Development of pharmacy companies

Today the Indian Pharmaceutical market is worth US$ 13 billion, with the domestic retail market expected to cross the US$10 billion mark in 2012 and reach an estimated US$12 billion to US$ 13 billion by 2015. The outsourcing opportunities are on the verge for growth of US$ 53 billion in 2010 from US$ 26 billion in 2006. The industry was estimated to be around US$13.2 billion in 2006-07, out of which the domestic consumption of pharmaceuticals for nearly 57% while the rest 43% was constituted by exports. In 2006, the market of Pharmaceutical witnessed an accelerated growth of more than 17% , primarily on account of increased clarity on tax reform especially the ValueAdded Tax (VAT) implementation. The country's Pharmaceutical market is expected to maintain a healthy growth rate of 12-13% and expected to cross the US$10 billion mark by 2012 and reach approximately, US$12 to 13 billion by 2015.20

Indian Pharmaceutical Industry influenza share feathers that allow vaccine -generated antibodies to recognize both viruses. One more mile stone in the Industry is that India's first domestic vaccine against Swine flue made possible.21

The Indian Pharmaceutical Industry is also getting increasingly U.S. FDA complaint to harness the growth opportunities in areas of contract manufacturing and research. Indian companies such as Ranbaxy, Sun Pharmaceutical and Dr. Reddy's are increasingly focusing on tapping thaw U.S. generic market. Recently, Ranbaxy Laboratories Ltd. has received a tentative approval from the US Food and Drug Administration to manufacture and market Lamivadine Tablets (150 mg), a medicine
used in treating HIV infection. This tentative approval has been granted under the US president's Emergency Plan for AIDS Relief Initiative (PEPFAR).22

- **Expanding Supplement Growth**

  Indian Pharmaceutical companies run on growth path vis-a-vis the Pharmaceutical related sectors growth are increase like Indian healthcare sector, opening new hospitals, Medico tourism, health insurance penetration etc.

  According to a report by an industry body, The Indian Health Care sector is forecast to reach $280 billion by 2020, contributing expected G.D.P. expenditure of 8% by 2012, compared with 4.2% in 2009. Other key growth drivers for this section include a growing population, the opening of new hospitals, growing lifestyle related health issues, less expensive treatment costs, the growth of medical tourism, improving health insurance, government initiatives and enhanced focus on PPP models.

  The overall growth of supplement units sector is likely to create a sizeable demand for quality and affordable medicines, thereby providing significant growth opportunities for domestic.

  India's pharma market has evolved and shifted gears to set foot on an accelerated growth path. In conclusion, as emerging markets become increasingly important and India's role among these becomes progressively significant, both domestic and pharma MNCs will need to adopt their business models, organizations and processed and create customized strategies overall, active participation from domestic and International pharma companies, increased investments and strategic initiatives will likely underpin future growth and enable the Indian Pharma market to break in to the global top tier in the present decade.

- **Employment Opportunities** 23

  Career in Pharmaceutical industry or in Pharmacy requires a candidate to take up D.Pharma or B.Pharma after completion of 12th class. Both PCB and PCM stream students can apply for these courses.

  1. D-Pharma: It's a two years diploma course in pharmacy.
  2. B-Pharma: It's a four year degree Course in pharmacy.
The job opportunities that pharmacy courses after are as follows:

- Pharmacist
- Drug Therapist
- Hospital Drug Coordinator
- Preparing prescription to patients
- Drug Inspector
- Chemical / Drug Technician
- Research Officer
- Pathological Lab Technician
- Research & Development
- Scientist
- Bio-tech Industries

All above supplement pharmaceutical industry emerged as developing industry which has been able to prepare H_{1}N_{1} Vaccine. The National Institute of Allergy and Infectious Diseases (NIAID), Part of the National Institute of Health, funded the scientists and the Vaccines were developed. This new vaccine works against the old virus because the 1918 and 2009 strains of H_{1}N_{1}.

1.14 Sample Profile of Selected Pharmaceutical Companies

Researcher has taken selected 5 companies. For the purpose of this research, researcher has selected the pharmaceutical companies, which are considered for computing the BSE, NSE. The main reason of selection of these pharmaceutical companies is that their scripts dominate and influence the stock movement of the country. Further, pharmaceutical companies considered for the stock exchange represents the major pharmaceutical companies of the country. The list of all these pharmaceutical companies are given below in the table no: 1:4
Table: 1.4

Selected Pharmaceutical Companies for the study

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Pharmaceutical Companies</th>
<th>PVT/PUB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cadila Health Care Ltd.</td>
<td>PVT Ltd.</td>
</tr>
<tr>
<td>2</td>
<td>Cipla Ltd.</td>
<td>PVT Ltd.</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Reddy's Laboratories Ltd.</td>
<td>PVT Ltd.</td>
</tr>
<tr>
<td>4</td>
<td>Ranbaxy laboratories ltd</td>
<td>PVT Ltd.</td>
</tr>
<tr>
<td>5</td>
<td>Sun pharmaceutical Industries Ltd.</td>
<td>PVT Ltd.</td>
</tr>
</tbody>
</table>

1.14.1 General Information of Selected Pharmaceutical Companies

For the purpose of the brief profile of each selected pharmaceutical companies including the performance parameters, the list of pharmaceutical companies given below in table : 4.2 for General information consist name of the office, corporate office, investor service center, Registered office, Company secretary, website etc
### Table 1.5

General Information of selected Pharmaceutical companies

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>List of Companies</th>
<th>Corporate Office</th>
<th>Investors Service Center</th>
<th>Registered Office</th>
<th>Website</th>
<th>Script Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ranbaxy laboratories Limited</td>
<td>Plot No. 19 Sector 32, Gurgaon - 122001 Haryana(India)</td>
<td>M.N. Nehru Place, New Delhi</td>
<td><a href="http://www.ranbaxy.com">www.ranbaxy.com</a></td>
<td>(BSE)500 359(NSE) Ranbaxy ISIN Code: INE015A01028</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Cipla Ltd.</td>
<td>Goa, maharastra, Karnataka</td>
<td>M.N. Mumbai center, Mumbai</td>
<td><a href="http://www.cipla.com">www.cipla.com</a></td>
<td>(BSE) 500087 (NSE) CIPLAEQ ISIN for NSDL &amp; CDSL INE059A01028</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Cadila Health care Ltd.</td>
<td>Zydus Tower, Setelie Cross Road, Ahmedabad</td>
<td>Website Zydus Tower Setelie Cross Road, ahmedabad</td>
<td><a href="http://www.zydus">www.zydus</a> cadila.com</td>
<td>(BSE)532 321 (NSE)CA DILA HC ISIN code:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Company Name</td>
<td>Address</td>
<td>Contact Details</td>
<td>Website</td>
<td>ISIN Codes</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------------------------</td>
<td>----------------------------------------------</td>
<td>--------------------</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Dr. Reddy's lab</td>
<td>7-1-27 Amarpreet Hgdrabad, 500016 Andhrapradesh, India</td>
<td>t.+91-40-2373 1946    f.+91-40-2373 1955</td>
<td>Same as corporate office</td>
<td><a href="http://www.drreddys.com">www.drreddys.com</a></td>
<td>(BSE)500 124 (NSE)DR REDDY (NYSE)R DY ISIN codes : INE089A0 1023</td>
</tr>
<tr>
<td>5</td>
<td>Sun Pharmaceutical Industries Ltd.</td>
<td>Acme Plaza, Andheri Kurla Road,Andheri (East),Mumbai 400059 Maharashtra</td>
<td>M.N.</td>
<td>Sunpharam Advance Research Center (SPARC) Tandalja Vadodara 390020 Gujarat</td>
<td><a href="http://www.sunpharma.com">www.sunpharma.com</a></td>
<td>(BSE)524 715 (NSE)SUNPHARM A ISIN NO : INE044A 01036</td>
</tr>
</tbody>
</table>

General information disclosure by the Pharmaceutical companies has been displayed in above table by the researcher. It covers the companies namely Cadila Health care Ltd., Dr. Reddy's laboratory limited have mentioned all details. Ranbaxy laboratory limited, Cipla Ltd. and Sun pharmaceutical Industries ltd. have not disclosed Investors service centre information.
1.15 History and Development of Individual Companies under the study.

1.15.1 Ranbaxy Laboratories Ltd.

- **History**

Ranbaxy was started by Ranbir Sing and Gurbax Singh in 1937 as a distributor for a Japanese Company Shionogi. The name of its first owners Ranbir and Gurbax. Bhai Mohan Singh bought the company in 1952 from his cousins Ranbir and Gurbax. After Bhai Mohansingh's son Parvinder Singh joined the company in 1967, the company saw an increase in scale now a day Ranbaxy 13420 employee in the country.

Ranbaxy laboratories ltd is an Indian multinational pharmaceutical company that was incorporated in India in 16 June 1961. The company went public in 1973 and Japanese Pharmaceutical Compani Daiichi Sankyo acquired a controlling share in 2008. In June, 2008, japan's Daiichi Sankyo company took a majority (50.1%) stake in Ranbaxy. with a deal valued at about US $ 4.6 billion. Ranbaxy's Malvinder Singh remained as CEO after the transaction.

Most of Ranbaxy product are manufactured under license from foreign pharmaceutical developers, though a significant percentage of their product are off patent drugs that are manufactured and distributed without licensing from the original manufacturer because the patents on such drug have expired. Ranbaxy exports its product to 125 countries with ground operations in 43 and manufacturing facilities in eight countries in 2011, Ranbaxy Global consumer Healthcare received the OTC company of the year award.
Ranbaxy Laboratories Ltd. is one of the India's largest Pharmaceutical Company integrated in research based, international pharmaceutical company, producing a wide range of quality, affordable generic medicines.

- **Development**

  Ranbaxy Laboratories limited was incorporated in 1961 and began operations in 1973. Ranbaxy is an international pharmaceutical company with its headquarters in India and engages in research-based production of affordable and high quality generic medicines. Ranbaxy Laboratories has already made a make in the global markets and has a presence in 49 countries. It also reached a sales figure of US $ 1339 million in 2006. The Top contributors towards this sales figure were North America at US $ 332 million and Asia at US $ 260 million.

  The care aspect of the Ranbaxy business has been the Research and Development Breakthrough research has been taking place through a group of 1200 export scientists at his research and Development center which was established in 1994. Innovative formulations have been an out-come of export endeavors through New Chemical Entity (NCE) and Novel Drug Delivery system (NDDS). Ranbaxy research areas for Drug Discovery and Development include metabolic diseases, inflammatory, respiratory, oncology and ant-infective, Ranbaxy's top-20 pharmaceutical has brought in revenues of US $ 600 million.  

- **Corporate Governance:**

  Company. has a strong Board with independent Directors guides and works through Corporate Governance committees that focus on aspects like Audit, compensation, science, share transfer shareholders grievances etc. The Board committees regularly scrutinize the policies and proposals made by the operating management and also an unbiased independent assessment of the state of robustness of the business processes in place. Corporate Governance committee also guide the management to continuously up grade standards and proactively address-potential vulnerability areas.

  Ranbaxy in 2008 proactively adopted the latest financial guidelines AS-30 related with foreign currency instruments and harmonized its financial reporting
accordingly to committee members of corporate Governance, "we were amongst the earliest companies India to adopted these guidelines, ahead of time, thus aligning our company with the global reporting norms while maintaining high standards of disclosure and complete transparency.  

### 1.15.2 Sun Pharmaceutical Industries Ltd.

- **History**

  Sun Pharmaceutical was set-up in 1983 and the company started off with only 5 products to cure psychiatric illness Sun Pharmaceutical is best known world-wide as the manufacture of especially active pharmaceuticals ingredients and formulation.

  However, the company is also concerned with chronic treatment such as cardiology, psychiatry, neurology, astroenterology, diabotology, and respiratory ailments. Active pharmaceutical ingredients (APT) include peptides, steroids hormones and anti—cancer drugs and their quality is internationally approved.

  The international offices of Sun Pharmaceutical Ltd. are located in British Virgin Istaland, Russia and Bangladesh. In India, The offices are in Vapi, Silvassa, Panoli, Ahmednagar and chennai Mr. Dilip S. Shangvi is the Executive chairman and managing Director of Sun Pharma and Mr. Kamlesh H. Shah is the secretory.

  There are 3 major group companies of Sun Pharmaceutical industries are —

  - Caraco Pharmaceutical laboratories (based in Detroit Michigan)
  - Sun Pharmaceutical Industries Inc. (Michigan)
  - Sun Pharmaceuticals (Bangladesh).
In 1983, when Sun Pharma was set up, it only dealt with two cities in India—west Bengal and Bihar. In 1985, it started trading nationally and by 2000, Sun Pharmaceuticals made its way through the international market - products used in cardiology were manufactured in 1987 and at that time Monotrate was one of the first product that was launched and went on to become a best - seller. In 1993, Sun Pharmaceuticals industries set up their own research institute and named it SPARC. SPARC become popular by generating knowledge and honing process development skills across the world. In 1994, Sun Pharma enrolled itself in the main stock exchange in India. Subsequently in 1995, the First API manufacturing plat was established at panoli mark its standard beyond competition and also capture the international market.

- Development

Sun Pharmaceutical Industries Ltd. is an international specialty pharma company head quartered in Mumbai, Maharashtra. The company Manufactures and markets pharmaceutical formulation as branded generic, as well as generic in India, the United stated and several other markets across the world. The company’s business is divided into four segments; Indian Branded Generics, US Generics, International Branded Generics (ROW) and Active pharmaceutical Ingredients (API). Their brand are prescribed in chronic therapy areas like cardiology, psychiatry, neurology, gastroenterology, diabetology and respiratory. They make specialty APIs, including peptides, steroids, hormones and anticancers. API and Dosage from are made at 20 plants across India, Israel the united states, Canada, hungary, Brazil, Mexico and Bangladesh. Their API products include Acaprosate calcium, Alendronate Sodium, Amifostine, trihydrate Budensionide and carvediol.

Sun pharmaceutical Industries Ltd. was incorporated in the year 1983. The company was established by Mr. Dilip Shanghvi in Kolkata with 5 products to treat Psychiatry ailments. They set up a compact manufacturing facility for tablets/capsules at Vapi, sales were initially limited to two state in Eastern India. In the year 1986, the company set up an administrative office in Mumbai. They extended the customer coverage to select cities in western India. In the year 1987, they rolled out their marketing operations nation wise. In the year 1988, the company launched Monotrate and Angizem product. In the year 1989, the Introduced product used in
gastroenterology. The moved their corporate office to Baroda. Also, they began exporting their products to neighboring countries. In the year 1998, the company established their first research centre. SPARC and this created the base for strong product and process development that enabled growth in the subsequent years. Also, they began office in Moscow. In the year 1994, the company was listed on the main stock exchanges in India. They started product production, in a dosage from plant at Silvassa. Also, they completed the major expansion at Vapi plant. In the year 1995, the company's first API plant at Panoli started production. Also, a new division, Azura, was begun for cardiology products. Inca, a new division to market critical care medication to intensive care units began operations. They strengthened the international marketing with offices in Ukraine and Belarus. In the year 1996, the company acquired an API plant at Ahmednagar from the multinational knoll pharmaceutical and expanded and substantially upgraded for regulated markets, with capacity addition over the years across differentiated API line such as anti-cancer and peptides. Also, the company acquitted equity stake in Gujarat Lyka organics Ltd. a manufacturer of cephalixin Active with a USFDA approval for the intermediate, TADCA. In the year 1997, the company's headquarters was shifted to Mumbai, Indias. Commercial capital. Also, they began the first of their international acquisitions with an initial $ 7.5 million investment in caralo, Detroit. Also, they took equity stake in MJ pharma, a manufacturer of several dosage from line with UK MHRA approval for cephalixin capsules. The company acquired TDPL with an extensive product offering and its portfolio streamlined. In the year 1998, the company acquired a basket of products including several commenced operations. In the year 2001, the company built a new formulation plant in dadra. Also they erstwhile TDPL division was renamed spectra. A new division, Arian, targeting cardiologists / hysician and dialectologists, was launched In the year 2004, the company acquired common stock and options from 2 large shareholders of caraco, increasing stake to over 60% from 44% at a total outlay of about $ 42 million. The upgraded and expanded formulation. Site in Halol. India (the erstwhile MJ pharma site) received approval from USFDA, UK MHRA, South African MCC Brazilian ANVISA and columbian INVIMA. During the year, the company completed the construction at a formulation manufacturing site at Jammu. The commissioned their first joint venture manufacturing unit in Dhaka, Bangladesh also. Two of their API factories received USFDA Approval taking the total number of USFDA approval sites
to three. The company acquired a cephalosorin Active Manufacturer phlox pharma, with European approval for cefuroxime axetil amorphous. In December 2004, a research center spread over 16 acres was inaugurated by the president of India, with special lab space for drug discovery and innovation. In the year 2005, the company bought a plant in Bryan, ohio, US and the business of ICN, Hungary from valent pharma. In December 2005 they acquired the intellecutal property and assets of Able Labs from the US District Bankruptcy court in new Jersey. In the year 2007, the company demerged the innovative research and business into a new company. SPARC Ltd. SPARS Ltd., was listed on the stock exchanges in India. The first pure research company along with their subsidiaries, signed definitive agreements to acquire Taro pharmaceutical Industries Ltd. (TAROF, Pink Sheets) a multinational generic manufactories with established subsidiaries manufacturing and product across the U.S., Israel, canada for $ 454 million. In November 2008, the company along with their subsidiaries acquired 100% ownership of chattem chemical. Inc., a narcotic rawmaterial importer and manufacturer of controlled substance with an approval API facility in Tennessee. This offer vertical integration for our controlled substance dosage from business in the US. In September 2010, the company acquired Taro pharmaceutical Industries Ltd announced formation of an India specific strategic Partenership agreement under which sun pharma will have the right to market, promoter and distribute MSD's diabetes products, sitagliptin and sitagliptin plus metformin, undr diffeent brand named in India. In June 14, 2011, carco pharmaceutical Laboratories of the company, Thus, caraco became a wholly owend subsidiary of the company.

Sun pharma was listed on the stock exchange in 1994 and an issue oversubscribed 55 times. The founding family continues to hold a majority stake in the company. Today sun pharma is the third largest and the most profitable pharmaceutical company in India as well as the largest pharmaceutical company by market capitalisation on the Indian exchanges. The Indian pharmaceutical industry has become the third largest producer in the world in term of volumes and is poised to grow into an industry of $ 20 billion in 2015 from the current turnover as $ 12 billion. In term of value India still stands at number 14 in the world.
Sun Pharmaceuticals shifted its headquarters in Mumbai as it is at the center of India commercial trade. The company began its first international acquisition with an amount of US $ 7.5 million, acquiring Caraco Pharma Lab in Detroit. After 8 acquisition by 2000, Sun Pharma established another research center at Mumbai with an objective to sharpen skills for the US market. Later on, the company introduced a few more treatment areas which include orthopedics, gynecology, and oncology.

Sun Pharma’s speedy acclivity is one of its best attributes that has made it gain an international status across the world. It is always up dated with the latest date and is highly competent. Quality remains the prime concern and is maintained strictly by the team. There are 3 forms of medicines manufactured plied by the company oral, injectable and delivery—system based Caraco Pharma and the Holol Pharma lab have got the approval of UKMHRA and USFDA in recent years.

Sun Pharmaceuticals was one of the first pharmaceutical firms to file an application to market a generic known as ANDA by assuring a 180 day marketing rights to formulate a more usual version of anti-ulcer drug in the US market. Sun Pharma shared this honorable 180 day achievement with Israel's Teva Pharmaceutical Industries with such achievements, Sun Pharmaceutical Industries limited is still ruling the pharmaceutical industry all across the world and is aiming high to gain popularity and success in brand building by making newer discoveries every day.

- **Corporate Governance**

The company's financial performance was strong in last one decade. the company completed a significant acquisition enriched the portfolio of products, company offer in the US, strengthened its specialty ranking in India and rest of world markets, added to its intellectual capital and yet again reaffirmed company's commitment to high standards of Corporate Governance and stake holder transparency.

Report on Corporate Governance and certificate of the auditors of every year company regarding compliance of the condition of corporate governance as stipulated in clause - 49 of the listing agreement with stock exchanges are annexed.
The company submits the report on the matters mentioned in the said clause and lists the practices followed by the company.  

- Company’s philosophy on code of corporate governance  
- Board of Directors  
- Code of Conduct  
- Audit committee  
- Remuneration committee  
- Shareholders'/Investors' Grievance committee.  
- Committee of Directors  
- General Body meetings  
- Disclosures  
- means of communication  
- General shareholder information
1.15.3. Dr. Reddy's Laboratories Ltd.

- **History**

Dr. Reddy's laboratories ltd. was set-up in Dt. 7-1-27 at Ameerpet, Hyderabad, and the company started of with Manufactures and markets a wide range of pharmaceuticals both in India and abroad. the company had 60 active pharmaceutical ingredients to manufacture drugs, critical care product, diagnostic kits and biotechnology products. The company has 6 FDA plants that product active pharma ingredients and 7 FDA inspected and ISO 9001 and ISO 14001 certified plants. Dr. Reddy's Q1 Fy 10 result shows the revenues of company at 18,189 million which is up by 21% During this quarter the company introduced 24 new generic products, applied for 22 new product registrations and filed 4 DMF, in details.28

- **Development**

Dr. Reddy's Laboratories Ltd. is an Integrated global Pharmaceutical company committed to providing affordable and innovative medicines healthier lives. The company offers a portfolio of products and services including Active pharmaceutical Ingredients (APIs), Custom pharmaceutical services (CPS), Generics, biosimilars, differentiated formulation and Novs chemical Entities (MCEs) through their three businesses Pharmaceutical Service and Active Ingredients, Global Generics and proprietary products. Their Therapeutic focus is on gastraintestinal, cardiovascular, diabetology, encology, plain management, anti-infective and padiatrics. Their major markets include India, USA, Russia and CIS, Germany, UK, Venezuela, South Africa, Romania and Newzealand.

Dr. Reddy's laboratory was incorporated in the year 1984 in Hyderabad. The company was established by Dr. Anji Reddy with an initial capital outlay of Rs. 25
The company made their beginning with the manufacture of Active Pharmaceutical Ingredients and Intermediates (API) and commenced operations with a single drug in a 60 tonne facility near Hyderabad, India. In the year 1986, the company share was listed on the Bombay Stock Exchange. Also they entered international market with exports of methyldopa. In the year 1987, the company obtained first USFDA approval for Ibuopofen API. In the year 1988, they acquired Benzex Laboratories Pvt. Ltd. to expand their Bulk Actives business. In the year 1990 they exported Norfloxacin and ciprofloxacin to Europe and Far East. In the year 1991, they commenced formulation exports to Russia. In the year 1993, the company established Dr. Reddy's Research Foundation and initiated drug discovery programme. In the year 1994, they finished dosages facility established to cater to highly regulated markets such as the US. In the year 1995, the company set up joint venture in Russia. In the year 1997, they filled first ANDA with the United States Food and Drug Administration for Ranitidine. In the year 1999, the company acquired American Remedies Ltd. a pharmaceutical company based in India. In the year 2000, cheminor Drugs Ltd. a group company merged with the company and thus the company became India's third largest pharma company. In the year 2001, the company launched Fluoxetine capsules. They became the first Indian company to win 180 day exclusivity for a generic drug in the US. Also they launched their first generic product Ranitidine, in the US Market. In the year 2002, the company made their first overseas acquisition of BMS Laboratories limited and Meridian Heath care in UK. In the year 2003, they launched Ibuprofen, first generic product to be marketed under the Dr. Reddy's label in the US. In the year 2005, they acquired Roche's API Business at its manufacturing site in Mexico. In the year 2006, the company acquired Betapharm the fourth largest generics company in Germany for a total enterprise Value of Rs. 480 million. In the year 2007, the company launched Reditux the world's first biosimilar MAb for the reatment of Non Hodgkins Lymphoma. Also they became India’s leading and most profitable Pharmaceutical Company. During the year 2008-09, the company acquired Dow pharmas Small molecules business in UK under chirotech technology Ltd, BASE corporations manufacturing facility at shreveport in Lousiana, USA under Dr. Reddy's Laboratories Lousiana LLC and Jet Generici SRL, company engaged in the sale of generic finished dosages in italy. In addition, Perlecan Pharma Pvt. Ltd., Macred India Pvt. Ltd. and Dr. Reddy's Laboratories ILAC Tieret also became subsidiary of the company. During the year 2009-10, Dr. Reddy's
Pharma SEZ Ltd was incorporated as a wholly owned subsidiary of the company for the Purpose of formulation manufacturing at special Economic Zone and Perlecan Pharma Pvt. Ltd. was amalgamated with the company. Further, the company acquired the balance stake of 30% in Dr. Reddy’s (Australia) Pvt. Ltd. The company filed 12 Abbreeriated New Drug Applications (ANDAs) in US including six para IV filling during the year. During the year 2010-11, the company acquired Glaxo Smithkline's (GSK) oral penicillin manufacturing facility located in Tennessee, USA. This allows the company to enter the US Pencilling containing antibacterial market segment through brand such as Augmentin and Amoxil and serve the needs of customer through manufacturing and other capabilities that did not previously exist within the company. Also, the increased the stake in the south African joint venture company launched cresp in India, the first biosimilar darbepoetin alfa in the world. In March 11, they launched peg granteel TM in India in the form of an affordable pegfilgrastim, which is used to stimulate the bonemarrow to produce more neutrophils to fight infection in partients undergoing chemotherapy. peg graffel TM During the year, Idea 2 Enterprises (India) Pvt. Ltd. Dr. Reddy's Laboratoris Romania SRL, I-ven Pharma Capital Ltd., Dr. Reddy's Laboratories Tennesnel LLC and Dr. Reddy's Venezuela C.A. became wholly owned subsidiaries of the company Further, Dr. Reddy's Laboratories (Proprietary) Ltd. also became wholly owned subsidiary by virtual of purchase of its balance 40% India Pvt. Ltd. ceased to be a subsidiary of the company.

Dr. Reddy's Laboratories aims at marking the lives of the individual healthier and happier. This company is one most popular pharmaceutical companies with base in more than 100 countries. the medicines of Dr. Reddy's Laboratories limited are easily available all across the globe.

Dr. Reddy's Pharmaceutical company is very much customer friendly. It takes care of the fact that maximum people get benefited by the products of this pharmaceutical company. It commercialized various treatments so as to provide high tech treatment to the masses. it tries to meet the medical needs of the people.

Though Dr. Reddy's Laboratories is located in verious parts of the world, if has it's headquarters in India. This global pharmaceutical company con found over 100 countries. this subsidiaries of this company are found at various countries like US, germany, UK, Russia and Briazil- 16 countries have the representative offices of
Dr. Reddy's laboratories limited 21 countries have third party distribution. It is one of the prestigious companies to be listed in NYSE.

It is become of the best quality products and wide reach of its medicines that it gives a tough competition to other pharmaceutical companies. It has already left a make in the global pharmaceutical market.

Dr. Reddy's pharmaceutical company has some set values that make it stand out among all pharmaceutical companies. These include:

- Quality
- Harmony and social Responsibility
- Respect for the individual
- collaboration and tram work
- Innovation and continuous learning

Some of the branded formulations of Dr. Reddy's Laboratories are brands like omez. Enam,. Ciprolet, Nise, Stamlo, Ketorol and many others. The research centers offer various new medicines to fight different disease.

- **Corporate Governance**

A detailed report on the corporate Governance system and practices of the company are given in asiparete section in this Annual Report- Detailed information for the shareholders is given in additional shareholders information section

Dr. Reddy's has designed a system of international control with the objective of safe guarding the company's as sets, ensuring that transaction are properly authorized, and providing significant assurance at responsible cost, of the integrity and objectivity and reliability of financial information. The management of Dr. Reddy's consider and takes appropriate action on recommendation made by the statutory auditors, internal auditors and the independent Audit Committee of the Board of Director. Details of internal controls are in the chapter on corporate Governance. [Dr. Reddy's Annual Report - 2007 p-g. 36]
1.15.4 Cipla Limited

- **History**

Cipla limited is a pharmaceutical company based in Mumbai, India. It was founded by Dr. Khwaja Abdul Hamied as "The Chemical Industrial & Pharmaceutical Laboratories" in 1935 in Mumbai. The name of the company was changed to 'Cipla limited' with effect from 20 July 1984, where in the word Cipla come from the first letter of each word in the old name 'The Chemical Industrial and Pharmaceutical Laboratories. In the year 1985, US FDA Approved the company's bulk drug manufacturing facilities. In 1994, Cipla launched Defer prone, the world's first oral iron chelator. In 2001, Cipla offered medicines (antiretravirals) for HIV treatment at a fractional cost (less than $ 350 per year per patient)

Cipla manufactures a range of pharmaceutical and personal care product. Cipla has 34 manufacturing units in 8 locations across India and has presence in 170 countries. Exports accounted for 52% of its revenue for recent years. Cipla cooperates with other enterprises in areas such as consulting, commissioning, engineering, project appraisal, quality control, know how transfer, support and plant supply.

As on recent year, the company has 27562 employees, and the recent year company incurred INR 10.36 billion on employee benefit expenses.

• Development

Cipla Limited today stands as one of the most trusted name in the pharmaceutical industry in India serving the nation for over 70 years with an unprecedented record of quality. Cipla has managed to win the hearts of millions of Indians with its wide range of personal care and pharmaceutical products.

Cipal was founded by Khwaja Abdul Hamied in 1935. It was earlier known as the chemical Industrial and pharmaceutical laboratories. Through it is better known by the acronym Cipla today. Cipla was registered in August, 1935 as a public limited enterprise and it began with an authorized capital of 6 lakh. Today the company is one of the leading Indian pharmaceutical companies.\textsuperscript{31}

Though set-up in 1935, it was only in 1937 that cipla began manufacturing and marketing its pharmaceutical products. Today the company has its facilities spread across several location in India such as Mumbai, Goa, PatalGanga, Kurkumbh, Banglor and Vikhrali. Cipla commands and important position in the India pharmaceutical industry by dint of its pioneering efforts in manufacturing cost-effective drugs for patients infected with HIV-AIDS.\textsuperscript{32}

In terms of retail sales Cipla is the second largest profit making pharmaceutical company in India. The company manufactures a diversified range of pharmaceutical and personal care products. Cipla is not only restricted to India has managed to spread its tentacles across 170 countries in the world.

Cipla's product portfolio included products for Animal Health care, OTC (over the counter), Flavors & Fragrances, Bulk Drugs and Agrochemicals Cipla has a slogan:  "Big or small we cover it all"

• Corporate Governance.

The company is committed to good corporate Governance practices. The company given report on corporate Governance as stipulated under clause 49 of the listing Agreement forms part of this report. The company committed good corporate governance the company respects the rights of its shareholders to seine information on the performance of the company and it is its Endeavour to maximize the long term
value to the shareholders of the company. The Compliance Report on corporate Governance here in signifies compliance of all mandatory requirement of clause - 49 of the listing Agreement.\textsuperscript{33}

1.15.5 Cadila Healthcare Limited

- **History**

  Cadila Healthcare Limited, founder by late Mr.Tamanbhai M. Patel, Cadila Healthcare Ltd. The flagship Company of the Ahmadabad based Zydus Group is one of India's leading integrated Pharmaceutical Companies. It currently ranks amongst the top 5 in the domestic formulations market with a market share of 3.85%. The Company is also a leading producer of niche and complex bulk drugs. While, the domestic business currently contributes over four fifth of the revenue. Over the past two years, the company has put in place a focused strategy. Invested resources and credited the infrastructure to benefit from the global generic opportunities, both in dosage forms and bulk APIs. The Company aims to be a leading global generics player by the end of this decade and to be innovation driven in the long run.\textsuperscript{34}

  Cadila health care Ltd. An integrated health care company, discovers, Develops, manufactures and markets a range of healthcare product worldwide, Cadila healthcare ltd. is a well-known research oriented, technology driven pharmaceutical company focused on the research areas of biotechnology, formulations and Active pharmaceutical ingredients. They are an Indian based pharmaceutical company having their presence around the world. They are having their manufacturing facilities of Ahmedabad, Ankleshwar and Vadodara in Gujarat, Ponda in Goa, Raigad in Maharashtra and Solan in Himachalpradesh. Cadila healthcare ltd. the flagship of Zydus Cadila group was incorporated in 15 may 1995 and they became a public limited company in July 1996.
• Development

The company's operation includes pharmaceuticals, which includes human formulations, veterinary formulation and bulk drugs, diagnostics, herbal products, skin care products and OTC products. In the year 1996, the company made a strategic alliance with guilin pharma of china and launched Fakigo in India, which is an anti-malarial segment. In May 2000, the company acquired formulation business of Recon ltd., which strengthens the company in the southern market. In the year 2001, they acquired German Remedies which was the largest M & A in the Indian pharmaceutical sector and in the same year, they entered into a joint venture with US based onconova for collaborative research in the field of oncogenomics. In April 2002, the company acquired Banyan chemicals, a Vadodara based company with the US FDA approved plant. In the year 2003, German Remedies, Recon Healthcare, Zoom properties and Zydus Pathline merged with the company. Also, they acquired Alpharma France, which spearheaded the group operations in France. In the same year, the company emerged as a 'partner of choice' sharing AG to manufacture and market the products in India. In November 2004, the company entered in to a strategic alliance with Zambon Group in Italy to open up new avenues in contract manufacturing. In the same year, the company entered into a long term strategic pact. With Boechringer Ingelheim India Ltd., a wholly owned subsidiary of Boerhringer Ingelheim (BI) to manufacture and market BI's products in India. In the year 2005, the company entered into a strategic alliance with Mallinckrodt Pharmaceutical Generics, a business unit of Tyco Healthcare to market the product manufactured by the company under a joint label. In the same year, the company signed a 50:50 joint venture with mayne pharma of Australia to manufacture generic injectable, cytotoxic [anti – cancer] medicinesd as well as active pharmaceutical ingredients (API) for global markets. During the year 2005-06, the company signed a s50 : 50 joint venture with one of Indias top biotech companies Bharat serums and Vaccines Ltd. (BSV) and formed Zydus BSV Pharma Pvt. Ltd. to develop, manufacture and market non infringing and proprietary Novel Drug Delivery System (NDDS) of an approved anti-cancer product for global markets. During the year 2006-07, the company entered into share purchase agreement to acquire 97.95% stack in Liva Healthcare Ltd. which is carring on business of manufacturing and marketing of Formulations. They also installed lyophilisation facility at Moraiya plant with annual capacity of 7.5 million
dosages to cater to both Indian and International markets. During the year 2007-08, the company restructured their formulation division namely Alidac and launched two new sulo division namely corza and Fortiza. Also, they forayed into the nutraceutical industry and launched a new division, Zydus Natriva. The upgradation of the injectibles facility at Moraiya was completed and also, they expanded their manufacturing facility at Ankleswar Zydus Healthcare Brasil Ltd., Brazil, a wholly owned subsidiary of the company acquired 100% shareholding of Quimica e-Farmaceutica Nikkho Da company to expand their branded business in Brasil. Also, Zydus Pharmaceutical Inc, Japan, a wholly owned subsidiary of the company acquired 100% shareholding in Nippon Universal Pharmaceutical Co. Ltd., Japan. A company which is carrying out business of manufacturing and marketing of pharmaceutical product in Japan. In February 2008, the company and Karo Bid of Swedon made a three year strategic collaboration in the area of drug discovery and development. The company is in the process of setting up a time chemical facility at Dabhara at a cost of about Rs. 200 million, which will commence their production in the financial year 2008-09. In May 2008, the company entered into Spain with the acquisition of 100% stake in Laboratories combix. In June 2008, the company through their wholly owned subsidiary, Zydus Healthcare SA Pty Ltd. is acquiring majority state of 70% in simarla company decided to demerge the consumer product Division of the company and transferred to carnation Nutra Analogue Foods Ltd. which is a subsidiary of Cadial Healthcare and the merger of Zydus Hospital and medical Research Pvt. Ltd. with the company. In August 2008, the company has entered into an agreement with WHO to explore a possible collaboration in the development of a cocktail for the treatment of rabies, through the use of monoclonal antibodies.

- Corporate Governance

The company has complied with the mandatory provision of C.G. as prescribed in the clause-49 of the listing Agreement with the Stock Exchange. A separate Report on C.G. and audit report on C.G. and auditors report thereon are included as a part of the annual report, Company considered below matter in C.G. Report.  


1.16 Importance of Corporate Governance in Pharmaceutical companies in India.

The Kumar Mangalam Birla committee’s recommendations on various aspects of company management are applicable and being followed in pharmaceutical company’s management. These recommendations are both mandatory and nonmandatory.

- **Board of Director:**

  An effective CG system is one which allows the board to perform these dual functions efficiently. The board of directors of a company thus directs and controls the management of a company and is accountable to the shareholders. The board directs the company, by formulating and reviewing company’s policies strategies, major plan of action, risk policy annual budgets and business plans setting performance objectives, monitoring implementation and corporate performance and overseeing major capital expenditures, appositions and change in financial control and compliance with applicable law taking into the account the interests of the stakeholders.

- **Composition of the B.O.D.**

  The board of directors is constituted according to the provisions of the listing agreement and the applicable status. The board of directors is
headed by the chairman with managing director, nominee directors and
directors elected by the shareholders. The role of the board of director in
pharmaceutical companies has become significant as it lay down policies in
critical areas.

- **Audit Committee**

  The audit committee of the board is constituted which provides
directions as also oversee the total audit function in the pharmaceutical
companies. Total audit functions imply the organization operationalization
and quality control of internal audit and inspection within the pharmaceutical
companies. Audit committee also reviews with management the annual
financial statements before submission to the board.

- **Remuneration Committee**

  The committee is of the view that a company must have a creditable
and transparent policy in determining and accounting for the remuneration of
the directors. For this purpose the committee to determine on their behalf of
the shareholders with agreed terms of references. This committee is
important for the shareholders to be informed of the company, which is
mandatory.

- **Risk Management Committee**: It manage effectively the risk
profile of the pharmaceutical companies, provide oversight of the
senior management’s activities in managing credit, market
operational legal and other risk of the pharmaceutical companies.

- **Shareholders/Investors Grievance Committee of the Boar**: In term of the
clause: 49 of the listing agreement with the stock exchanges, the
shareholders/investors grievance committee of the board is constituted by the
pharmaceutical companies which review the complaints received and ensure
for resolving them satisfactory
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