

INDIAN PHARMACEUTICAL MARKET

Pharmaceutical companies in India both Indian and foreign, manufacture bulk drugs in several therapeutic categories and the industry has facilities to manufacture various types of dosage namely capsule, tablets, injectables, orals, and liquids. Of the 400 bulk drugs in the Indian market, it is estimated that 300 are domestically produced.

Moreover, India is emerging as the most favoured destinations for collaborative Research & Development bioinformatics, contract research and manufacturing and clinical research as a result of growing compliance with internationally harmonized standards such as Good Laboratory Practices (GLP), current Good Manufacturing Practices (cGMP) and Good Clinical Practices (GCP).

Factors contributing to the growth of the Pharmaceutical Market:

India today has the distinction of producing high quality generic medicines that are sold around the world. Further, India is poised to be one of the fastest growing pharmaceutical markets in the world. The following factors have fuelled the growth for the drugs and pharmaceutical market:

- The growing population of over a billion;
- A huge patient base;
- Increasing incomes;
- Improving healthcare infrastructure;
- An increase in lifestyle-related diseases such as diabetes, cardiovascular diseases, and central nervous system;
- Penetration of health insurance;
- Adoption of patented products;
- Patent expiries and aging population in the US, Europe, and Japan.

As a result, a number of multinationals have entered the Indian Pharmaceutical market. Already 15 of the 20 largest pharmaceutical companies in the world have a presence in India. In fact, during April 2000 to October 2007, drugs and pharmaceuticals are the tenth largest FDI-attracting sectors in India.

The following challenges faced by the global pharmaceutical industry also open up a number of opportunities for the Indian Pharmaceutical Industry:

- higher healthcare costs;

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- competition from generics;
- patent expiries of blockbuster drugs;
- drying R&D pipelines; and
- increasing R&D costs.

This offers immense growth opportunity for the Indian Pharmaceutical Industry in the following segments:

- Bulk-drugs;
- Domestic formulations;
- Exports to non regulated markets;
- CRAMS;
- Exports of generics to regulated markets;
- NCE research for global pharmaceutical companies.

The Indian patent act of 1970 was amended in 2005 in order to gain admittance to the World Trade Organization (WTO) and become compliant with TRIPs (Trade-Related Aspects of Intellectual Property rights), an important WTO regulation. The Amendment established patent protection for pharmaceutical products in India. The recognition of product patent has provided global companies with better IPR protection and as a result has opened up a new segment for the Indian Pharmaceutical Industry in Contract Research and Manufacturing Services (CRAMS).

The Indian pharmaceutical market at present is highly fragmented, with the top three companies having a market share of around 5% each. However, introduction of the product patent regime is likely to result in heavy consolidation in future.

End Users:

Around three quarters of the pharmaceuticals are for the retail market, rest for direct sales to the hospitals and nursing homes. The End users of pharmaceuticals are the government and private healthcare service providers, and retailers.

In India, healthcare service is provided both by the government (public) and private sector. The size of the Indian healthcare delivery market is estimated at \$18.7 billion. The private sector provides for 63 percent of the healthcare market.

Key Characteristics of the Indian Pharma Sector:

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 formulations within the country;
- Low cost of production;
- Low R&D costs;
- Innovative Scientific Manpower;
- Excellent and world-class national laboratories specializing in process development and development of cost effective technologies;
- Increasing balance of trade in pharma 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.

Laws and Regulations governing Indian Pharmaceuticals:

The Drugs and Cosmetics Act, 1940: This Act regulates the import, manufacture, distribution and sale of drugs in India.

- Schedule M of the Drugs and Cosmetics Act specifies the general and specific requirements for factory premises and materials, plant and equipment and minimum recommended areas for basic installation for certain categories of drugs.
- Schedule T of the Drugs and Cosmetics Act prescribes Good Manufacturing Practices (GMP) specifications for manufacture of Ayurvedic, Siddha and Unani medicines.
- Schedule Y of the Drugs and Cosmetics Act governs the clinical trials legislative requirements of the Drugs and Cosmetics Act.

The Pharmacy Act, 1948: This legislation regulates the profession of Pharmacy in India. Under the provisions of this act the Central Government constitutes a Central Pharmacy Council of India and the State Governments constitute State Pharmacy Councils.

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The Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954: This Act provides to control the advertisements regarding drugs and prohibits the advertising of remedies alleged to possess magic qualities.

The Narcotic Drugs and Psychotropic Substances Act, 1985: This is an act concerned with control and regulation of operations relating to Narcotic Drugs and Psychotropic Substances.

The Medicinal and Toilet Preparations (Excise Duties) Act, 1956: An Act to provide for the levy and collection of duties of excise on medicinal and toilet preparations

The Drugs Price Control Order (DPCO), 1995: This is an order issued by the Government of India under the Essential Commodities Act, 1955 to regulate the prices of drugs. The Order provides the list of price controlled drugs, procedures for fixation of prices of drugs, method of implementation of prices fixed by Government and penalties for contravention of provisions among other things. For the purpose of implementing provisions of DPCO, powers of the Government have been vested in the National Pharmaceutical Pricing Authority (NPPA).

Good Clinical Practice (GCP) Guidelines: The Ministry of Health, along with Drugs Controller General of India (DCGI) and Indian Council for Medical Research (ICMR) has come out with draft guidelines for research in human subjects. These GCP guidelines are essentially based on Declaration of Helsinki, World Health Organization (WHO) guidelines and International Conference on Harmonization (ICH) requirements for good clinical practice.

The following are some of the other laws which have a bearing on pharmaceutical manufacture, distribution and sale in India:

- The Industries (Development and Regulation) Act, 1951
- The Trade and Merchandise Marks Act, 1958
- The Indian Patent and Design Act, 1970
- Factories Act

Regulatory Bodies:

The Ministry of Health & Family Welfare (MoHFW) and the Ministry of Chemicals and Fertilisers (MoC&F) of the Government of India play a major role in regulating the pharmaceutical sector in the country.

Ministry of Health & Family Welfare (MoHFW):

Department of Health: The following are the main agencies of the department which deal with key issues including drug approvals:

- Central Drugs Standard Control Organisation (CDSCO): As an agency of the Department of Health, the CDSCO works both at the Central and the State level and is responsible for ensuring safety, efficacy and quality of drugs supplied to the public. The agency performs the above mentioned functions with the Drugs Controller General of India (DCGI) as the executive head.
- Drugs Controller General of India (DCGI): The DCGI is an apex body in the pharmaceutical industry governing issues such as product approval and standards, clinical trials, introduction of new drugs, import licences for new drugs and enforcing new drug legislation.

The following are the major acts which the Department of Health administers:

- The Drugs & Cosmetics Act, 1940
- The Prevention of Food Adulteration Act
- The IMA Act
- The Tobacco Control Act

Ministry of Chemicals and Fertilisers (MoC&F):

The Ministry of Chemicals & Fertilisers constitutes bodies such as the Department of Chemicals & Petrochemicals and the National Pharmaceutical Pricing Authority (NPPA). These departments are entrusted with the responsibility of policy making, planning, development and regulations relating to Chemicals, Petrochemicals and Pharmaceuticals.

Department of Chemicals & Petro-Chemicals: This department is the concerned authority for formulating and implementing policies and programmes for achieving growth and development of pharmaceuticals in the country. In order to attract investment into the sector, the Department has undertaken several initiatives, the major being the Pharmaceutical Policy with the objective to strengthen the production, export & R&D.

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The first comprehensive pharmaceutical policy in India was formulated in 1978. The national pharmaceutical policy has seen a number of changes through new policy guidelines issued in 1986, 1994 and recently in 2002.

Pharmaceutical Policy 2002 - The main objectives of the policy are:

- To ensure availability of good quality essential pharmaceuticals at reasonable prices for mass consumption.
- To strengthen the indigenous capability for cost effective quality production and export of pharmaceuticals by reducing trade barriers in the pharmaceutical sector.
- Quality control system for pharmaceutical production and distribution to make quality an essential attribute of the domestic industry.
- Encouraging pharmaceutical R&D that is compatible with the country's needs.
- To encourage new investment in the pharmaceutical industry and the introduction of new technologies and new drugs.

Draft Pharmaceutical Policy 2006 - The Department of Chemicals has released the draft of the New Pharmaceutical Policy 2006 which is waiting for approval by the Indian Government.

The draft National Pharmaceutical Policy, 2006 seeks to strengthen the Drug Regulatory System and Patent offices in the country. It focuses on research and drug development with clinical trials. The policy aims at providing a better access to anti-cancer and anti-HIV/AIDS drugs to the patients. It seeks to rationalize the excise duty on pharmaceuticals and to streamline the system of bulk procurement of drugs by the Government besides promoting the generic medicines.

National Pharmaceutical Pricing Authority (NPPA): It has been entrusted with the task of fixation / revision of prices of bulk drugs and formulations, enforcement of provisions of the Drugs (Prices Control) Order and monitoring the prices of controlled and decontrolled drugs in the country.

Drugs Price Control Order (DPCO), 1995: The Drugs Price Control Order (DPCO), 1995 is an order issued by the Government of India under the Essential Commodities Act, 1955 to regulate the prices of drugs. DPCO controls the domestic prices of major bulk drugs and their formulations with an aim to provide patients with medicines at affordable prices. DPCO ascertains, as per Drug

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Policy guidelines, the bulk drugs (and their formulations) to be kept under price control.

At the State level, the State Food and Drug Administrations (FDAs) monitor the drug manufacture, sale, and testing by companies in their jurisdiction. There are also two main statutory bodies formed by Parliament:

- the Drugs Technical Advisory Board, whose technical experts advise the Central and State Governments on special technical matters involving drug regulation, and
- the Drugs Consultative Committee, where Central and State drug officials ensure that drug control measures are enforced uniformly in all states.

The domestic pharmaceutical industry is represented by the following three main pharmaceutical associations:

Organization of Pharmaceutical Producers of India (OPPI): This is a premier association of research based international and large pharmaceutical companies in India and is also a scientific and professional body.

Indian Drug Manufacturers' Association (IDMA): The IDMA represents the interests of domestic manufacturers and plays a vital role in the growth and development of the pharmaceutical industry, by taking up with the Government major issues such as Price Control, Patents and Trade Marks Laws, Quality & GMP, R&D, Exports and so on.

Indian Pharmaceutical Association (IPA): This is the premier professional association of pharmacists in India.

Drug Application Procedures:

Foreign pharmaceutical firms looking to export drugs to India must first obtain a license from the Drugs Controller of India (DCI) which is granted upon assurance that the firm's manufacturer abroad complies with Indian production and safety standards.

Prior to the release of any drugs for import into India, the importer must submit the following documents to the Central Drug Control Organization:

- documents of import (Bills of Entry),
- protocols test and analysis,

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- a sample of the product(s) label, and
- a drug sample.

The drug sample is tested by the government, which in turn releases a consignment to the importer if the test results approve the drug as meeting "standard quality." Importers are also permitted to import drugs for experiment, test research or clinical trial under a test license.

Companies looking to manufacture drugs locally must go through a "preparatory" or Pre-Licensing Phase to show that their manufacturing facilities are up to standard. After being granted a license, the manufacturer must also produce a test batch of drugs that is approved by the government for safety. All companies must also follow specific labeling requirements.

Both importers and local manufacturers must label every product with the following information:

- name of the drug;
- a correct statement of the net content of the drug;
- content of active ingredients;
- name and address of the manufacturer;
- batch or lot number;
- manufacturing license number (if applicable);
- number of the license under which the drug is imported (if applicable);
- date of manufacture and expiration date, which must not exceed 60 months.

Pharmaceutical companies must have their label and pack insert approved by the DCI before the drug is marketed.

Pharmaceutical Registration:

To register a new drug in India, a New Drug Application must be submitted to the regulatory authority Drugs Controller General of India, along with the documents such as details of the drug's regulatory status in other countries; restrictions of use in approved countries; a free sale certificate from the country of origin; results of clinical data based on approved protocol; published data of confirmatory Phase III trials undertaken abroad; details of bio-availability and dissolution studies; a sample of the marketing information, including draft labels and cartons and inserts; a sample of the pure drug substance along with testing

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protocol for analysis at the Central Drugs Laboratory (CDL) in Calcutta. Generally, local Phase III clinical trials are required for the registration and marketing approval of all new drugs in India.

According to the industry, drug registration can take 12-18 months, longer time if delays are encountered. Decisions on fast track approvals for drugs are on the basis of demand for the drug and in public interest.

Pharmaceutical Pricing:

The Department of Chemicals and Petrochemicals of the Ministry of Chemical and Fertilizer develops the pricing policy for the pharmaceutical industry. In India, the prices of some drugs are controlled through the Drug Price Control Order (DPCO) 1995.

Price controlled drugs are divided into two categories, the first category includes drugs considered as essential and is subject to more stringent rules than those in the second category. Concessions exist for manufacturers who conduct in-house bulk drug research and development, and for new drugs introduced into India, either by domestic or foreign firms.

Tax Regime:

The following major initiatives have been taken by the Indian Government for the pharmaceutical industry in the Budget 2008-09:

- A reduction in excise duty from 16 percent to 8 percent on all goods produced in the pharmaceutical sector.
- Amounts spent on R&D eligible for a 125 percent weighted deduction.
- A reduction in customs duty from 10 to 5 percent and a total exemption of excise duty on certain specified life-saving drugs and bulk drugs used in the manufacture of Anti-AIDS drugs.
- Central sales tax on specified life saving drugs has been reduced to two percent from three percent.

Value Added Tax:

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- Drugs and medicines are taxed at 4% except Assam where the rate is 6%.
- Medical devices are taxed at 12.5% in three states Maharashtra, Gujarat and Kerala, whereas in all other states, the tax rate is 4%.
- Some states have introduced a system of levying tax on MRP at a single point i.e. first sale in the state is subject to VAT on the basis of MRP and subsequent sales, in general, are exempt. The MRP system is optional in some states. States such as Madhya Pradesh, Chattisgarh and Orissa levy entry tax on entry of medicines and devices in to these states.

Other Initiatives:

- An allocation of Rs 16, 534 crore for the healthcare sector.
- An increased allocation for the National Rural Health Mission (NRHM) amounting to Rs 12, 050 crore.
- An amount of Rs 993 crore provided for the National Aids Control Programme (NACP) and Rs 1, 042 crore provided for the eradication of polio.
- A 5 year tax holiday for hospitals in the Tier –II and Tier –III cities.

Foreign Direct Investment:

FDI up to 100% is permitted through the automatic route for the manufacture of drugs and pharmaceuticals provided the activity does not attract compulsory licensing or involves the use of recombinant DNA technology and specific cell / tissue targeted formulations. FDI proposals for the manufacture of licensable drugs, pharmaceuticals and bulk drugs produced by recombinant DNA technology and specific cell / tissue targeted formulations will require prior approval of the Foreign Investment Promotion Board (FIPB) of the Government of India.

Market Trends:

- In terms of the global market, the Indian Pharmaceutical market currently holds a modest 1-2% share, but it has been growing at approximately 10% per year.
- The size of the domestic pharmaceutical market is larger than export market. However, owing to the growth of global generics market, stringent price controls in the domestic market, and better margins, the export market is growing much faster than the domestic market.
- Traditional branded generics presently dominate the Indian pharmaceutical market but the future will see strong growth in the specialty branded generics and patented drug segments.
- Drugs for diabetes and cardiovascular diseases are expected to see the fastest growth among all therapy areas during 2007-2011.
- The retail pharmaceutical market in India is presently highly unorganized; however, a vast opportunity exists for the organized market.
- Over the last few years, Cipla, Ranbaxy and GlaxoSmithKline are controlling the top three positions in the Indian pharmaceutical market.
- Between 2000 and 2005, domestic pharma industry grew at a CAGR of about 9.5 percent and touched the market size at \$5.13 billion by March 2005. However, towards March 2006, the growth rate jumped to 11 percent to hit the market size of \$5.7 billion. It is estimated that it will hover around 13.6 percent during 2006 - 10 to take up Indian domestic pharma market size at \$ 9.48 billion by 2010.
- The country's pharmaceutical market is a US\$ 7.3 billion opportunity with the domestic retail market expected to cross the US\$ 10 billion mark in 2010 and be worth an estimated US\$ 12-13 billion in 2012.
- The Indian pharmaceutical industry ranks 4th in terms of volume (with an 8 per cent share in global sales) globally.
- In terms of value it ranks 13th (with a share of 1 per cent in global sales) and produces 20-24 per cent of the world's generic drugs (in terms of value).

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- India is also one of the top five active pharmaceutical ingredients (API) producers (with a share of about 6.5 per cent).
- The Indian Pharmaceutical Industry today is in the front rank of India's science-based industries with wide ranging capabilities in the complex field of drug manufacture and technology. The sector is estimated to be worth US\$ 6 billion, and growing at over 13 per cent annually. Indian pharmaceutical companies now supply almost all the country's demand for formulations and nearly 70 per cent of demand for bulk drugs.
- The domestic pharmaceutical market in India has grown at a CAGR of nearly 12% in the last five years.
- The major pharmaceutical companies in India are the main R&D investor in the country. The R&D spend (capital and current) of these major companies has grown at CAGR of 38 percent during the period 2000–01 to 2005–06.
- In 2005–06, the R&D expenditure of 50 major companies totaled \$495.19 million growing at a rate of 26 percent over the previous year. The higher growth rate is attributed to product patent implementation in the country in January 2005.
- The Indian prescription drug market in 2006 was worth Rs 27,333 crore (Rs 273.33 billion), up 18 per cent as compared to Rs 23,243 crore (Rs 232.43 billion) in 2005. Bulk of this business came from the sale of drugs that do not enjoy patent protection, a reason for the dominance of domestic companies.

Estimated Growth:

- According to a McKinsey study, the Indian pharmaceutical industry is projected to grow to US \$ 25 billion by 2010 whereas the domestic market is likely to more than triple to US\$ 20 billion by 2015 from the current US\$ 6 billion to become one of the leading pharmaceutical markets in the next decade.
- Between 2007-08 and 2011-12, the Indian domestic pharmaceutical market is expected to grow at a CAGR of nearly 16%.

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- It is estimated that the clinical trial market in India will be \$1 billion by 2010.
- Over the last 5 years the Contract research and manufacturing services (CRAMS) industry has been contributing close to 8 percent of the total Indian pharmaceutical business. Developed countries are expected to further propel the CRAMS industry to grow at a CAGR of nearly 32 percent from 2006 to 2013 as India offers global pharma companies both quality and cost advantage. Already, India has the largest number of US Food and Drug Administration (US FDA)-approved plants outside the US, with over 100 facilities and the contract manufacturing market is expected to reach \$ 900 million by 2010.
- Patented drugs, which had no share in the pharmaceutical market, are expected to have a 10% market share in 2010.
- Driven by factors such as rising rural incomes and a strong distribution network, India's rural pharmaceutical market is experiencing a strong growth.
- The product patent regime will encourage the Indian companies to invest more in Research and Development.

Import Market:

The imports of pharmaceuticals are estimated at 10 to 12 percent of the total market. The major suppliers are Switzerland, China, USA, Germany, Italy, Denmark, France, and UK. Imports include raw materials and finished products. Some major pharmaceuticals which are imported include Provitamins and Vitamins, Cortisones, Hydrocortisone, Insulin, Penicillin, Osetrogen, Progesterone and other hormones, Erythromycin and other antibiotics, Antisera & other blood fraction, and Glycosides.

The imports from Switzerland, US and Germany primarily consist of finished medicament in dosage forms for retail sales.

Export Market:

India also exports pharmaceuticals to numerous countries around the world, including to the U.S., Germany, France, Russia and UK.

The Indian pharmaceutical industry ranks 17th with respect to exports value of bulk actives and dosage.

Exports constitute nearly 40 per cent of the production, with formulations contributing 55 per cent and bulk drugs 45 per cent. The industry comprises large, medium and small-scale operators out of which some 300 companies together account for nearly 90 per cent of the domestic market, while the rest is accounted for by a large number of small companies which total about 9000 units.

According to the Pharmaceutical Export Promotion Council (Pharmexcil), the pharmaceutical exports in 2007-08 stood at US\$ 6.68 billion against US\$ 5.73 billion in 2006-07, recording a growth rate of 16 per cent. The industry has been clocking export growth rate, recording 18 per cent, 23 per cent and 17 per cent growth rates during 2006-07, 2005-06, and 2004-05, respectively.

The overall pharmaceutical exports are estimated to increase at a CAGR of 30-32 per cent and reach US\$ 18.3 billion in 2010 - 11.

Pharmaceutical Clusters:

Andhra Pradesh, Gujarat, Maharashtra and Goa are the major pharmaceutical manufacturing clusters in the country.

The bulk drug clusters are located primarily in the following regions:

- Gujarat- Ahmedabad, Ankleshwar, Vapi, Vadodara
- Maharashtra - Mumbai, Tarapur, Aurangabad, Pune
- Andhra Pradesh - Hyderabad, Medak
- Tamil Nadu – Chennai, Pondicherry
- Karnataka - Mysore, Bangalore, Goa

Visakhapatnam (Vizag) in Andhra Pradesh is the upcoming bulk drug cluster that has generated significant interest in the APIs players.

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Goa, Mumbai, Pune and Hyderabad have been the preferred destinations for formulation players in the past. However, Baddi in Himachal Pradesh and Pantnagar and Haridwar in the state of Uttarakhand are the upcoming formulation clusters, attracting formulation manufacturers from across the country due to fiscal incentives offered by the Government.

The R&D clusters have followed a similar development pattern. Apart from the National Capital Region (NCR), other R&D clusters have been limited to the established pharmaceutical regions in the country.

The captive R&D Units are located in the following regions:

- National Capital Region
- Ahmedabad
- Mumbai
- Aurangabad
- Hyderabad
- Bangalore
- Chennai

The contract R&D Units are located in the following regions:

- Mumbai
- Hyderabad
- Bangalore
- Chennai
- Ahmedabad

Key Research Institutes:

- Central Drug Research Institute (CDRI), Lucknow.
- National Institute of Pharmaceutical Education & Research (NIPER), Mohali.
- Indian Institute of Chemical Technology (IICT), Hyderabad.
- Centre for Cell & Molecular Biology (CCMB), Hyderabad.
- Indian Institute of Chemical Biology (IICB), Kolkata.
- Indian Toxicology Research Institute (ITRI), Lucknow.
- Institute of Genomic and Integrated Biology (IGIB), New Delhi.
- Institute of Microbial Technology (IMTECH), Chandigarh.

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- National Chemical Laboratory (NCL), Pune.
- National Centre for Biological Sciences (NCBS), Bangalore.
- Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore.
- Centre for DNA Fingerprinting and Diagnostics (CDFD), Hyderabad
- Indian Institute of Science (IISc), Bangalore.
- National Institute of Immunology (NII), New Delhi.

Key Pharmaceutical players:

The following are the top pharmaceutical companies of the country:

- Ranbaxy Laboratories
- Sun Pharmaceuticals
- Dr. Reddy's Laboratories
- Cipla
- Ashwin Dalvi India
- Aurobindo Pharma
- Nicholas Piramal
- GlaxoSmithKline
- Lupin Laboratories
- Cadila Healthcare
- Wockhardt

Other important domestic companies:

- Biocon
- Serum Institute of India
- Intas Biopharmaceuticals
- Bharat Serums
- Orchid Pharmaceuticals
- Panacea Biotech
- Torrent Pharmaceuticals

Apart from the above, there are five government-owned companies in the Indian public sector. These companies are:

- Indian Drugs and Pharmaceuticals,
- Hindustan Antibiotics Limited,

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- Bengal Chemicals and Pharmaceuticals Limited,
- Bengal Immunity Limited, and
- Smith Stanistreet Pharmaceuticals Limited.

The foreign companies in India include the following:

- Abott India,
- Astra Zeneca India,
- Aventis Pharma India,
- Burrough-Wellcome,
- Glaxo SmithKline,
- Merck India,
- Novartis,
- Pfizer Limited, and
- Wyeth Ledele India.

Mergers and Acquisitions by Indian Pharmaceutical companies:

The largest players in India like Ranbaxy, Wockhardt and Dr. Reddy's Laboratories, have been making targeted acquisitions since early 2006. Some examples of take-overs include the following:

- Ranbaxy Laboratories Ltd. acquired Unbranded generics business of Allen S.p.A (GSK unit), Terpia S.A, Ethimed NV and Be-Tab Pharmaceuticals
- Sun Pharmaceuticals acquired Taro Pharmaceutical
- Dr Reddy's Laboratories acquired Betapharm Arzneimittel GmbH and Litaphar SA
- Nicholas Piramal acquired Pfizer manufacturing unit at Morpeth in UK
- Orchids Chemicals & Pharmaceuticals Ltd. acquired Bexel Pharmaceuticals
- Serum Institute India Ltd. acquired Lipoxen PLC
- Wockhardt Ltd. acquired Pinewood Laboratories
- Panacea Biotec Ltd. acquired Cambridge Biostability Ltd.
- Natco Pharma Ltd. acquired Nick's Drug Store
- Aurobindo Pharma Ltd. acquired Milpharm Limited

Major opportunities in Pharmaceuticals:



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The future of Indian pharmaceutical sector looks extremely positive. India is an attractive global sourcing destination for Pharmaceuticals due to availability of low-cost, high-quality production and regulatory compliance, large and growing US FDA approved plant capacity synthetic chemistry talent for early stage compound development, low cost of research and world-class testing facilities.

The major opportunities in the pharmaceutical sector are in the following areas:

- Marketing of Patented Drugs;
- Contract Research and Manufacturing (CRAM);
- IT enabled services including clinical / market data analysis;
- Clinical Trials;
- Oncology;
- Pharmaceutical Retail.

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