CHAPTER - III

ROLE OF PHARMACEUTICAL COMPANIES IN HUMAN LIFE
3.1. Introduction:

Healthcare will probably see a continued evolution toward closer working relationships between pharmacists and physicians. Many different models of practice will undoubtedly emerge, involving an array of collaborations or partnerships between physician and pharmacist. Pharmacists could eventually become pharmacotherapy experts working as integral parts of medical practices (White and Latif 2006). Now in 21st century hospital care teams usually include a pharmacist for the purpose of enabling consultation on treatment implementation and monitoring of hospitalized patients.

3.2. Components of Pharma sector:

The pharma industries are one of the most important industries in India. The private sector is getting more and more significance in context of liberalization, privatization and globalization. Large scale industries, particularly in the private sector are facing many problems, such as low productivity, low quality, marketing problems and competitive cost of production.

Pharmaceutical industry has been one industry which has been growing continuously, immune to economic recession and commodity cycle. The industry is knowledge driven and its intellectual assets are the key determinants. Pharmaceutical Sector covers a gamut of products like Tablets, Capsules, Liquid orals, Lotions & Liniments, Creams & Ointments, Powders, and Injectibles etc. The consumption of the above are directed mainly through specialized medical fraternity which are adequately informed about their usage and other medical information related to it.

The growth of Pharmaceutical Industry as a healthcare segment will always be high as long as the drug consumption increases due to growing health problems of living beings. Other positive factors of growth include ageing global population and opening up of markets in Europe, Latin America and Asia. Also
Investors continue to have high expectations from the pharmaceutical industry. In spite of all these positive, there are some challenges the industry has to address.

The competitive and technological changes in the pharmaceutical industry right from powerful new drug discoveries to innovative R & D partnerships and marketing plans are reshaping the business strategies of many pharmaceutical companies. R & D spending by major pharmaceutical companies & the current trend in the allocation of R & D in therapeutic segment. By issuing the Patent Ordinance, India met a WTO commitment to recognize foreign product patents from Jan 2005, culmination of a 10 year process patent regime. In this new scenario, Indian pharmaceutical manufacturer won’t be able to manufacture patented drugs.

To adapt to this regime, the Indian industry is exploring business models different from the existing traditional ones which includes:

- Contract Research (Drug Discovery & Clinical trials)
- Contract manufacturing
- Co marketing alliances

In view of the challenges of increasing uncertainties, rising population, new diseases incidence, resurgence of certain diseases, shortening of product cycle besides rigorous competition from multinationals. The pharmaceutical industry has been forced to reconfigure its organizational structure and its impact on supply chain strategy for survival and growth.

### 3.3. Organisational Structure

Organisational structure in pharmaceutical industries mainly categorized into four parts

- a) Research and Development
- b) Operations
- c) Quality
- d) Marketing
All these streams are separate entities and works independently. The impact of Research and Development on supply chain is mainly at the time of new launching of the product. In market lot of companies are in pipeline to launch the molecule at first time. The lunching difference is as low as low one day. The operation group is the core group of supply chain where the working starts from the finished goods inventories working, plan finalization, RM/PM deliveries, manufacturing, supply of finished goods to market. In this chain everybody is important as the failure of one leads to delayed supply which ultimately affects the market requirements. One customer return from medical shop due to unavailability of product is direct loss to company. Generally, operation group is divided mainly in two categories demand and supply team. Quality group is subdivided in two group i.e. Quality control and Quality assurance. They are mainly responsible for testing of Raw materials, packing materials, finished goods and overall control on operations on quality assurance front. Marketing is also subdivided into two categories as like quality. These are mainly distribution and marketing.

**Research and Development:**

Research and Development sector of the Pharma company plays a important role in Drug research and development which involves isolation and identification of the active compound and to determine appropriate formulation and dosing as well as to establish efficacy and toxicity. Pharmaceutical companies generate innovation in health care by inventing and developing new treatments for previously untreated health problems (radical innovation) and also developing improved formulations or new indications for them e.g. to treat diseases other than those for which the medicines were originally invented (incremental innovation). These innovations significantly improve health and quality of life, by providing patients with more choice, better risk tolerance, easier dosing and administration, as well as less side effects.
Modern pharmaceutical R&D is characterized by ever increasing magnitude, complexity and scale. Researchers face challenges from clinical and regulatory environment. They are confronting complex diseases (such as Alzheimer’s, cancer and HIV/AIDS) that require much more basic research to identify novel treatment targets. The recent advances in drug delivery have contributed to the emergence of powerful new research tools such as nanotechnology, pharmacogenomics, high-throughput screening and combinatorial chemistry, which make pharmaceutical innovation both more promising and more challenging than before.

A recent, widely circulated estimate put the average cost of developing an innovative new drug at more than $800 million, including expenditures on failed projects and the value of forgone alternative investments and total time needed about 12 years. The study concluded, and a firm’s actual expenditures make up only about half of the total reported cost. The rest represents the financial cost of tying up investment capital in multiyear drug development projects, earning no return until and unless a project succeeds. That “opportunity cost” of capital reflects forgone interest or earnings from alternative uses of the capital. (Opportunity costs are common to all innovative industries, but they are particularly large for pharmaceutical firms because of the relatively long time that is often required to develop a new drug.)

Research and development spending per NME has grown significantly because of failure rates in clinical trials have increased, possibly because of greater research challenges or a willingness to test riskier drugs in such trials. Total spending on health-related research and development by the drug industry and the federal government has tripled since 1990 in real terms. However, the number of innovative new drugs approved by the Food and Drug Administration each year has not shown a comparable upward trend. On the whole, such approvals have consistently ranged between about 20 and 30 per year. Measured by the number of drugs approved per dollar of R&D, the innovative performance
of the drug discovery declined. Over the past decade, a growing share of the industry’s R&D output has consisted of incremental improvements to existing drugs rather than new molecular entities.

**Supply Chain Management**

Supply chain management is simply a loop; it starts with the customer and ends with the customer. Through the loop flows all materials and finished goods, information and even transactions. It requires looking at business as one continuous process. This process absorbs traditionally distinct functions as forecasting, purchasing, manufacturing, distribution and sales & marketing into a continuous flow of business transaction. Corporate activity is restructured as a seamless pipeline that stretches between company’s suppliers and its customers. Supply chain management, is thus the integration of the management of information systems, sourcing, and procurement, production and scheduling, order processing, inventory management, warehousing, customer service, and after market disposition of packaging & materials.

The Supply Chain Management gets compounded in the post 2005 era where competitive advantage in terms of cost would be of paramount importance for the various categories of products requiring different inventory management suitable for each category. Inventory constitutes nearly 50-60% of the product cost and the management of this cost plays a vital role in the overall profitability of the product. Investment in Inventory represents one of the largest single areas of capital in a business, often more than 25% of total assets.

With the change in competitive environment in the past fifteen years, industrial customers have also changed significantly. They want their needs to be fulfilled in substantially shorter time. Hence strategic importance is placed on supply chain to deal with challenges of delivering the right product of right quality at the right place and at the right time and of course at the cost the customer is happy. In the emerging scenario with implementation of supply chain
management as a key business strategy, many firms are turning away from adversarial relationship with channel echelons and moving towards a closer and collaborative partnership or alliance.

**Inventory** represent aggregate of those items which are either held for sale in the ordinary course of business or are in the process of production for sale (i.e. work in process) or yet to be utilized/consumed in the production of goods and services. Inventories are of two types:

1. **Organization Inventories:**
   
   Cycle Stocks, Safety Stocks and Anticipation stocks of Raw materials, Packing Materials and Finished Products.

2. **Movement Inventories:**
   
   In transit or Pipeline stocks of finished products and Work in process

Stock Inventories can also be categorized into various types indicating their reason for existing in the supply chain.

   a) **Cycle Stock:** This inventory results from the replenishment process and typifies predictable demand and replenishment rates. Cycle inventory exists because producing or purchasing in large lots allows a stage of the supply chain to exploit economies of scale and lower cost.

   b) **In Transit Inventories:** These are items that are being transported from one location to another. Usually in transit inventories are included in the inventory carrying cost in the location from where they are dispatched. Longer the channel and more the shipping locations, greater would this type of inventory.

   c) **Safety Stock:** This is held over and above the cycle stock because of uncertainties that occur in the demand pattern or lead time. Thus there is a proportion of the average inventory holding at any stockholding point which will be devoted to short term variations in either demand and/or replenishment lead time.
d) **Speculative Stock:** It is held often because there have been opportunities to gain advantageous discounts (quantity discounts) if larger than average orders are placed. Alternatively, product procurement has been undertaken ahead of forecast shortages or price increases.

e) **Seasonal Stock:** It is a form of seasonal stock, which involves the accumulation of inventory prior to a season commencing. This provides continuity of merchandise and economies of production for producers.

f) **Dead /absolute Stock:** it is the inventory for which no demand has been registered for a specific period of time. Typically, it is held in one location and written down in value.

g) **Distribution Inventory:** This inventory includes all the finished goods held anywhere in the distribution system. The purpose of holding this inventory is to improve the customer service by locating stock near to the customer and to reduce the transportation costs by allowing manufacturers to ship full loads rather than partial loads over long distances.

Each of the above types of Inventory at Factory as well as all the Warehouses/Depots have to be managed differently depending on a number of factors governing them and therefore the decisions and policies governing various inventories and the costs associated with inventory management have a far reaching impact on the overall Supply Chain Inventory performance.

In addition to the designing a lean supply chains, there are various other approaches, techniques, tools, methods and models to control inventory throughout the supply chain. Some of them are Selective Inventory control (ABC Analysis), Various Forecasting Models, Material Requirement Planning (MRP),
Distribution Requirement Planning (DRP), Just In Time (JIT), Self Certified Vendors, Vendor Managed Inventory (VMI) etc. in a IT enabled system.

In a Global Scenario, we encounter four Clusters of drivers:

1) Market Forces: Homogenization of customer needs is most frequently necessary when we deal with globalization process. As a result, e.g. dispersed production facilities which take into account of multitude of regional specifies are no longer obligatory and instead replaced by fewer and arger production sites which take advantage of economies of scale. Same is the case when dealing with logistics service provider, a single or few large service providers are preferred over many in different countries.

2) Cost Drivers: Economies of scale are the most important drivers of globalization processes with various variables of cost. Global Sourcing, favorable logistics and differences in country costs are essential for the supply chain. Due to liberalized trade agreement, companies are no longer restrained to local suppliers but are free to select their suppliers on a global scale. Favorable logistics or Transportation, which has seen great technical progress at international level and increasing productivity has considerable impact on the capability to globalize operations. Differences in country costs are considered in supply chain to increase the overall competitiveness of supply chain.

3) Government Regulation: Favorable trade policy has doubtlessly promoted international trade. GATT and WTO agreements have considerably pushed world trade and welfare. Without the emergence of liberal regulatory environments and protective policies, the globalization of corporate activities such as production sites, research and development would not have occurred.
4) **Competition**: Interdependencies of country activities reflect the increasing functional integration of economic activities across national boundaries. In globally configured supply chains, product components have to cross a multitude of national boundaries before a finished product can be handled over to a final customer. High imports and exports are a result of liberalized trade policies and reflect the increasing global pattern of economic activities.

### 3.4. Global Pharma Sector Scenario:

The traditional way the pharmaceutical industry sector has been organized and involved in new drug development is by close control of generated intellectual property rights and full control over the end product value (Pritchard et al 2003). The process of discovering new drugs has become increasingly costly, complex and risky, since consumer and societal demands are increasing, enabling technologies are becoming more complex and failure rate is high, even at late stages of development. Though new product launches have decreased over the last decades, the sustainability of the prevailing model has been increasingly questioned (Kola 2008, Paul et al 2010). During recent years, there has been increasing concern about the productivity of pharmaceutical research and development (R&D) (Garnier 2008, Munos 2009, Paul et al 2010, LaMattina 2011).

### 3.5. Healthcare spending and workforce

According to the WHO, a health system is built on six building blocks: service delivery; health workforce; information; medical products, vaccines and technologies; financing; and leadership/governance. A well-functioning healthcare system also promotes productive relationships between governments, patients and the healthcare industry. The pharmaceutical industry plays a pivotal role in any healthcare system, by providing medicines and vaccines for most health interventions. A well-performing healthcare system must ensure that
pharmaceutical products meet quality requirements and are properly procured, distributed to the different healthcare facilities and prescribed by properly trained professionals. Doctors, nurses and other health professionals form the cornerstone of healthcare systems. Not only do they diagnose, treat and follow up patients with the right care, they also facilitate adequate patient adherence to treatment. Taking the wrong medicines or not adhering to appropriate treatments can have deleterious effects on patients’ health. However, the availability of physicians varies greatly; in Spain, there are 3.75 doctors for every 1,000 inhabitants, while in Ghana there are only 0.85.

In terms of funding, performing healthcare systems require sufficient allocation of resources by government and/or the private sector. Unfortunately, public health and the strengthening of healthcare systems are not seen as important priorities in many countries, and the resources made available to health vary significantly from country to country. While Jordan invests 9.3 % of its GDP on health and the government 16.1 % of its budget, Pakistan invests only 2.6 % and 3.6 % respectively. Strong healthcare systems also require strategic long-term planning and political commitment. Health authorities should not only facilitate necessary resources, but also procure medicines effectively, and minimize inefficiencies and unnecessary mark-ups in the supply chain, such as taxes and tariffs. Strengthening healthcare systems is one of the targets set by the UN Millennium Development Goals (MDGs).

The global pharmaceutical market is undergoing rapid transformation. As blockbuster drugs come off patent, there are fewer new products in the pipeline to replace them. This is due to declining R&D productivity and rising regulatory costs (PwC Pharma 2020 series of reports). There has been a dramatic shift towards emerging markets as western markets slow down. Global Pharma multinational corporations are looking at new growth drivers such as the Indian domestic market to capitalise on the growing opportunity.
The paradigm faced by the leading economies of the US, Europe and Japan are significantly different from those in the emerging markets of India, China, South America and Russia. According to IMS Health, the emerging markets of Asia/Africa/Australia grew at a rate of 15.9% in 2009, as compared to much slower growth rates in North America (5.5%), Japan (7.6%) and Europe (4.8%). Emerging markets will be the next major growth drivers for the global Pharma industry, with more than 40% of incremental growth of the industry coming from emerging economies in the next decade (IMS Health. Market Prognosis. March 2010). The global pharmaceuticals market grew rapidly in the 1990s and in the early 2000s, spurred primarily by market demand in North America and Europe. However, with impeding 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 driver for the industry – its contribution to the growth of the global pharma market increased from eight per cent in 2003 to 40 per cent in 2010. Consequently, global pharma MNCs have adopted prudent strategies to further expand their footprint in emerging markets such as Brazil, Russia, India and China. The US invests 13.7% of its GDP on health. Annual drug expenditure (per capita) for Japan amounts to $ 412, while for India it is a low $ 3. The US and the UK had a combined 62% (46%+16% respectively) share of global pharma exports in 2005. The US and the UK together sell 2 out of 3 pharma products in the world. More than 90% of the worldwide pharma production and 97% of the R&D activities occur in developed countries. Also, more than 80% of the patents granted in developing countries belong to the residents of industrialized nations.
3.6. Indian Pharma Sector Scenario:

India’s domestic pharmaceutical industry was worth around US$11 billion in March 2009 and PwC estimates it will rise to approximately US$30 billion by 2020. The Indian pharma industry ranks fourth in volume terms and thirteenth in value terms worldwide. It contributed 2% of the global share in 2005, which is valued approximately at $5.2 billion. The imports are of the order of 4% of the total value of the industry. Per capita annual drug consumption in India is as low as $3, which when multiplied by one billion population, roughly corresponds to the profit made by Novartis Inc. in 2000.

As per Indian Drug Manufacturing Association (IDMA), the estimated number of pharma firms in India are more than 23,000. Of these, only 300 are in organized sector and account for the manufacture of almost 70% of the produce. India recorded almost 1,000% growth in the number of manufacturers since 1970. Market share of MNCs incorporated in India is 40%, while the rest 60% is held by domestic companies. The domestic market is very fragmented; more than 10,000 firms collectively control about 70% of the market. Many of the local players are generics producers specialising in anti-infectives. In 1972, the federal Government passed a law allowing local producers to manufacture drugs that were still under patent, as long as they used different processes.

The lack of a patent system that conformed to international standards helped spawn a domestic industry that excelled in reverse engineering novel drugs and launching copycat versions at home and in other emerging markets. Wholesale marketing of generic versions of drugs patented since 1995 and still under patent has not been permitted since India’s manufacturing clout has made it a massive threat to established generics firms – India now produces more than 20% of the world’s generics. Moreover, around US$70 billion worth of drugs are
expected to go off patent in the US over the next three years, and India is well-positioned to take a substantial share of the resulting new generics markets. Indian companies today account for 35% of the Abbreviated New Drug Application (ANDA) approvals granted by the US Food and Drug Administration (FDA) until February 2009. India’s pharmaceutical exports totaled around US$8 billion in 2009 and PwC estimates they will rise to approximately US$20 billion by 2020. Over the past several years companies such as DRL, Cipla and Lupin have grown internationally in their own right as well. Other Indian pharma companies like Glenmark Pharma, Orchid and Aurobindo also have wholly owned subsidiaries in different parts of the globe.

The Indian Pharmaceutical industry has achieved an eminent global position in pharma sector and has been witnessing phenomenal growth in recent years. It is well known that India is emerging as a world leader in generic pharmaceuticals production, supplying 20% of the global market for generic medicines. The industry accounts for 8% of global production, and is exporting to over 200 countries. India is a major vaccine producer and has 18 major vaccine manufacturing facilities. These vaccines are used for the national and international market (150 countries) which makes India a major vaccine supplier across the globe. Indian pharmaceutical industry has been playing a pivotal role in supply of affordable and quality pharmaceuticals to the developed and developing countries. It is third largest in terms of volume and thirteenth largest in terms of value. The industry is estimated to grow at 20% compound annual growth rate (CAGR) over the next five years. India is among the top 20 pharmaceutical exporting countries and the exports have grown very significantly at a CAGR of around 19% in the 11th plan period. The industry has seen tremendous progress in terms of infrastructure development, technology base and the wide range of products manufactured.
The Indian pharmaceutical industry has grown rapidly in terms of infrastructure, technology base and range of products. However, in light of the changing epidemiological reality of India, with a dual burden of communicable and non-communicable diseases, weak health systems, and a relatively lower public funding for health, access to medicines has become pivotal. Fostering access to good quality pharmaceuticals is critical to attain India's goal of Universal Health Coverage (UHC). India accounts for 8% of global pharmaceutical production of drugs and medical equipments. India is the most important supplier of generic medicines (20% by value of the global market). Indian manufacturers are the most important suppliers of generic medicines to many countries and key contributors to the WHO Prequalification Programme (PQP), which ensures the safety and efficacy of medicines by setting standards for generic medicines. More than 65-70% of medicines in the WHO Prequalified List of Medicinal Products belong to Indian manufacturers in the segments of HIVAIDS, Tuberculosis, Malaria, Reproductive Health, and other categories.

**Burgeoning Indian pharma industry**

India is among the most significant emerging markets for the global pharma 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 pharma industries globally, primarily driven by a large population, evolving patient demographics, increasing health care expenditure, growing urbanisation, rising life expectancy, and active private-sector participation. (Sanofi and Kantar health presentation at EphMrA)
Domestic companies are transforming their business model to play a larger role in global pharma market

The Indian pharma industry has been able to claim a share in the global market by leveraging its strengths and enhancing its regulatory and technical maturity. Formulations manufactured in India constitute 20 per cent of the global generics market by value, and the overall share of Indian manufactured formulations is as high as 46 per cent in the generics segment in the emerging markets. However, with the onset of the patent regime, the traditional reverse engineering capabilities of Indian pharma companies are no longer helpful, as they would not be able to replicate the patented product and launch it in the domestic market. Hence, going forward, India would be required to leverage its strengths in 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, comprising of NDDS ($134 billion opportunity by 20131), super generics ($135 billion worth of product expiring between 2010 and 20152) and biosimilars ($115 billion worth of biologics expiring by 20153), to the high value New Chemical Entity (NCE)/New Biopharmaceutical Entity segment. Thus, domestic companies can look forward to pursue all these opportunities and build capabilities to conduct drug discovery and in house development.
After years of anaemic growth in the Indian pharma market until the 1990s mainly due to a feeble intellectual property environment pharma MNCs have recorded steroid-led growth in the domestic market. They have increased investments in the domestic market over the past few years and are now comfortably placed to capture a substantial share of the domestic market. Evidently, pharma MNCs are projected to capture a 35 per cent market share of the market by 2017, compared with 28 per cent in 2009. Over the years, pharma MNCs have adopted India-focused strategies to tap the growing potential of the country’s pharma market.

Pharma MNCs have been considering acquisitions of domestic players to gain sizeable share in the domestic market. These acquisitions have also enabled pharma MNCs to access the infrastructure, distribution networks, and
management capabilities of domestic players, thereby strengthening their business operations in the country. On the other hand, licensing agreements with Indian companies have helped pharma MNCs access a ready basket of generic products. Going forward, these deals are likely to accelerate the launch of products in various emerging markets while offering MNCs the advantage of cost-effective manufacturing. Furthermore, pharma MNCs consider India as a preferred strategic outsourcing partner with services ranging from Contract Research Manufacturing (CRO) and clinical research services to sales and marketing, information technology, finance and accounting, and customer-relationship management.

Gujarat clocked the highest growth rate in pharmaceuticals market at 22.4 per cent during November 2014, surpassing the industry growth rate, which grew by 10.9 per cent, as per data from the market research firm AIOCD Pharma softech AWACS. Also, growing at an average rate of about 20 per cent, India's biotechnology industry comprising bio-pharmaceuticals, bio-services, bio-agriculture, bio-industry and bioinformatics may reach the US$ 7 billion mark by the end of FY15, according to an industry body. Biopharma is the largest sector contributing about 62 per cent of the total revenue, with revenue generation to the tune of over Rs 12,600 crore (US$ 2.03 billion).

**Investments**

The Union Cabinet has given its approval to amend the existing FDI policy in the pharmaceutical sector in order to cover medical devices. The Cabinet has allowed FDI up to 100 per cent under the automatic route for manufacturing of medical devices subject to specified conditions. The drugs and pharmaceuticals sector attracted cumulative foreign direct investment (FDI) inflows worth US$ 12,813.02 million between April 2000 and
December 2014, according to data released by the Department of Industrial Policy and Promotion (DIPP).

Some of the major investments in the Indian pharmaceutical sector are as follows:

- Stelis Biopharma has announced the ground-breaking for construction of its customised, multi-product, biopharmaceutical manufacturing facility at Bio-Xcell Biotechnology Park in Nusajaya, Johor, Malaysia's park and ecosystem for industrial and healthcare biotechnology at a total project investment amount of US$ 60 million.

- Pharma major Strides Arcolab has entered into a licensing agreement with US-based Gilead Sciences Inc to manufacture and distribute the latter's low-cost Tenofovir Alafenamide (TAF) product used for HIV treatment in developing countries. The licence to manufacture Gilead's low-cost drug extends to 112 countries.

- Apollo Hospitals Enterprise (AHEL) plans to add another 2,000 beds over the next two financial years, at a cost of around Rs 1,500 crore (US$ 242.57 million), as per Mr Prathap C Reddy, Founder and Executive Chairman, Apollo Hospitals.

- CDC, the UK’s development finance institution, has invested US$ 48 million in Narayana Hrudayalaya hospitals, a multi-speciality healthcare provider. With this investment, Narayana Health will expand affordable treatment in eastern, central and western India.

- Cadila Healthcare Ltd has announced the launch of a biosimilar for Adalimumab - the world’s largest selling drug for rheumatoid arthritis and other auto immune disorders. The drug will be marketed under the brand name Exemptia at one-fifth of the price for the branded version-Humira. Cadila’s biosimilar is the first to be launched by any company in the world and is a finger print match with the original in terms of safety, purity and potency of the product, as per the company.
• Torrent Pharmaceuticals has entered into an exclusive licensing agreement with Reliance Life Sciences for marketing three biosimilars in India — Rituximab, Adalimumab and Cetuximab.

• Piramal Enterprises Ltd has acquired US-based Coldstream Laboratories for US$ 30.6 million in an all-cash transaction.

• Indian Immunologicals Ltd (IIL) plans to set up a new vaccine manufacturing facility in Pondicherry with an investment of Rs 300 crore (US$ 48.53 million).

• SRF Ltd has acquired Global DuPont Dymel, the pharmaceutical propellant business of DuPont, for US$ 20 million.

Adequate government support to further boost the domestic market

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 per cent 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 August 2010, the GoI announced its plans to set up a $639.56-million venture capital (VC) fund to give impetus to drug discovery and strengthen the country’s pharma infrastructure. Both domestic and MNC pharma players are expected to leverage these initiatives to expand their operations in the country.

The Department of Pharmaceuticals 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 favourable regulatory environment. The GoI
also aims to position India among the top five pharma innovation hubs by 2020, with one out of every five to 10 drug discovered worldwide by 2020 originating from the country.

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 per cent of the country’s population under health insurance by 2020, compared with the current average of 15 per cent.

Expanding health care infrastructure and changing demographics to supplement growth

The Indian healthcare sector is forecast to reach $280 billion by 2020, contributing expected GDP expenditure of eight per cent by 2012, compared with 4.2 per cent in 2009, according to a report by an industry body. Over the past two decades, India’s thriving economy has driven the need for urbanisation, thereby creating an expanding middle class with increased disposable income to spend on healthcare. Other key growth drivers for this sector 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 penetration, government initiatives and enhanced focus on PPP models. The overall growth of the Indian healthcare sector is likely to create a sizeable demand for quality and affordable medicines, thereby providing significant growth opportunities for both domestic and pharma MNCs.

The Addendum 2015 of the Indian Pharmacopoeia (IP) 2014 is published by the Indian Pharmacopoeia Commission (IPC) on behalf of the Ministry of Health & Family Welfare, Government of India. The addendum would play a significant role in improving the quality of medicines which in turn promote public health and accelerate the growth and development of pharma sector.
The Government of India has unveiled 'Pharma Vision 2020' aimed at making India a global leader in end-to-end drug manufacture. It has reduced approval time for new facilities to boost investments. Further, the government has also put in place mechanisms such as the Drug Price Control Order and the National Pharmaceutical Pricing Authority to address the issue of affordability and availability of medicines.

Romania is keen to tie up with the Indian pharmaceutical companies for research and develop new drugs. "Romania will collaborate with India for license acquisition to sale India's drugs in Europe," said Mr Mario Crute, Counselor in Ministry of health in Romania at GCCI. The country will tie up with the Indian pharmaceutical companies for research and develop new drugs.

Some of the major initiatives taken by the government to promote the pharmaceutical sector in India are as follows:

- Indian and global companies have expressed 175 investment intentions worth Rs 1,000 crore (US$ 161.78 million) in the pharmaceutical sector of Gujarat. The memorandums of understanding (MoUs) would be signed during the Vibrant Gujarat Summit.

- Telangana has proposed to set up India's largest integrated pharmaceutical city spread over 11,000 acres near Hyderabad, complete with effluent treatment plants and a township for employees, in a bid to attract investment of Rs 30,000 crore (US$ 4.85 billion) in phases. Hyderabad, which is known as the bulk drug capital of India, accounts for nearly a fifth of India's exports of drugs, which stood at Rs 90,000 crore (US$ 14.56 billion) in 2013-14.

The Indian pharma market size is expected to grow to US$ 85 billion by 2020. The growth in Indian domestic market will be on back of increasing consumer spending, rapid urbanisation, raising healthcare insurance and so on.
Going forward, better growth in domestic sales will depend on the ability of companies to align their product portfolio towards chronic therapies for diseases such as cardiovascular, anti-diabetes, anti-depressants and anti-cancers are on the rise.

Moreover, the government has been taking several cost effective measures in order to bring down healthcare expenses. Thus, governments are focusing on speedy introduction of generic drugs into the market. This too will benefit Indian pharma companies. In addition, the thrust on rural health programmes, life saving drugs and preventive vaccines also augurs well for the pharma companies.