

Indian Pharmaceutical Industry after Independence: The Changing facet

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Abstract -

The history of Indian pharmaceutical market in 1970's was almost nonexistent. Today, India has gained immense importance and stamped a position for itself in the pharmaceutical field. India enjoys an important position in the global pharmaceuticals sector. In the post-independence era the Indian pharmaceutical company was completely dominated by multinational companies (mncs) and drug price in India was among the highest in the world. India accounts for 20% of global exports in generics, largest provider of generic medicines globally. The country also has a large pool of scientists and engineers with a potential to steer the industry ahead to greater heights. Currently, the Indian pharmaceutical industry is one of the world's largest and most developed, ranking 4th in volume terms and 13th in value terms.

Keywords : Pharamaceutical, companies, growth, drug.

Introduction -

India has progressed immensely across several sectors in the past years since independence. The Pharmaceutical industry in India is one of the world 's largest in terms of volume and stands 13th in terms of value. Before Independence, the framework and working of the pharma sector constrained to import of bulk drugs. There was no major manufacturing in the country for advanced generics, plus the growth rate was minimal in this sector. Post Independence India witnesses a major drug growth with various modifications implied to the whole set up in the pharmacy. India has shown record growth of 10 PPA in the Pharma Industry from the past two decades. Today, India

can make up almost 95% of its bulk drug requirement from within the Country. Major formulations for all branded and generics drugs are today done here itself.

In the post-independence era the Indian pharmaceutical industry was completely dominated by multinational companies and drug price in India was among the highest in the world. The growth of drugs and pharmaceutical industry in India is primarily a post-Independence phenomenon. Before Independence, bulk of drugs was imported and only processing and formulations were done in the country. The pharma industry has made incredible development during the last 40 years. During the initial years after independence, the Government of India, through its Council of Scientific and Industrial Research (CSIR), established the Central Drug Research Institute (CDRI) in Lucknow to lead the country's efforts in drug research and development (1951) followed later by other public institutions such as the Regional Research Laboratories in Hyderabad (1956, now Indian Institute of Chemical Technology, IICT), and in Jammu (1957, now Indian Institute of Integrative Medicine, IIM). CDRI's fore most emphasis was to diagnose lead molecules for tropical diseases and population control measures from medicinal plants, initially trusting on the country's traditional systems of medicine such as Ayurveda and Unani, but later expanded to include other plants, and synthetic small molecules.

Then and Now -

India's oldest pharmaceutical companies were established at the turn of the past century, such as Bengal Chemicals & Pharmaceuticals Ltd. (1901), or Alembic Chemical Works (1907) to manufacture quality chemicals, pharmaceuticals and home products. Around 1967-68, India also reformulated its strategy to eradicate smallpox, by focusing on surveillance, epidemiological investigation of outbreaks, and through massive containment drives. The Indian Patent Act 1970 was the main reason for the fast and continuous growth of the Indian pharmaceutical industry. By 1971, the vaccine uptake had increased significantly, and in 1975, the country reported its last case of smallpox. In 1978, the Expanded Immunisation Programme was launched by the Indian government, which introduced vaccines for TB, polio, and tetanus. The private sector was incentivized to produce vaccines, which gave further boost in its mass manufacturing. The Serum Institute of India, established in 1966 was one of the first private companies to begin

manufacturing a vaccine for measles in India. The pharma industry saw exponential change owing to liberalization. With a combination of rapid indigenous expansion and overseas collaboration, Indian pharma companies invested immensely to become global players.

After independence, the Indian government increased funding for research and development to the private sector. The BCG vaccine laboratory also came up, and vaccination for tuberculosis was expanded over the years through government initiatives. By 1955-56, all the States of the Indian Union were covered under the government's mass campaign. India is returning the gesture made in 1947.

India became a hub for drug discovery collaborations in the late 1990s when global pharmaceutical and biotechnology companies started outsourcing non-IP-sensitive chemistry such as chemical libraries, intermediates and reference compounds.

Indian pharmaceutical companies' entry into the drug discovery and development field dates back to the early 1990s when India announced the signing of the World Trade Organization (WTO) agreement that introduced a product patent system from January 2005. Changes in the regulatory environment in the same year led to other developments with the emergence of the country as a favorite destination for "chemistry" outsourcing followed by "collaborative drug discovery as contract agencies where in-house strengths in chemistry of local companies was augmented with focus biology".

The changing scenario -

Today Indian pharmaceutical industry is recognized as a global leader in the production of high quality generic drugs and is ranked third in terms of manufacturing pharmaceutical products. The change in the regulatory environment in 2005 triggered new strategies, which allowed expansion into the drug discovery space.

Over the past few years, Indian pharmaceutical companies have been attempting to re-orientate their efforts toward developing new innovative medicines. The transition by Indian generic-drug makers will remain slow given the high risk levels associated with drug discovery. Despite this, local companies made headway in this sector. In May 2012, Ranbaxy Laboratories launched Synriam, a new drug for the treatment of

uncomplicated *Plasmodium falciparum* malaria. Similarly, Cadila Healthcare launched Lipaglyn (saroglitazar) in June 2013, for the treatment of diabetes. Saroglitazar is claimed to be the first new chemical entity (NCE) discovered and developed by an Indian pharmaceutical company.

Conclusion -

India's pharmaceuticals market has grown in confidence and firmly moved on to an accelerated growth path. The development of new drug discovery in India has the potential to improve the overall healthcare system in the country. The introduction of new medicines will help alleviate the burden of diseases as it provides greater access to innovative medicines through the clinical trials conducted in India. The growth of the local pharmaceutical research and development sector can serve as a key driver of economic growth, and this will help increase income levels and improve the access to healthcare services. The market for pharmaceuticals in India has immense potential. Decreased price controls and changing patent regulations will soon make conditions in India much more favorable to multinational corporations

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