TRIPS AND INDIAN PHARMACEUTICAL INDUSTRY

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REVIEW ARTICLE

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ABSTRACT:

The TRIPs Agreement has led to a reinforcement of the protection of intellectual property, particularly in many developing countries. From the point of view of transfer of technology, the imitation of technologies from industrialized countries and the marketing of the resulting products will now be more difficult. The MNCs are also expanding vigorously in the generic segments. They are trying to grow not only organically, but through mergers and acquisitions and strategic alliance with Indian generic companies. 90% of the Indian Pharmaceutical Industry was dominated by the Global companies that imported most of the drugs. During the early 1970s, the Indian players gradually gained prominence as a result of the Indian Patent Act, 1970 which allowed Indian companies to reverse engineer Patented Molecules and launched them in the domestic markets.

Key words: TRIPs Agreement, GATT, NCE, NBEs, MNCs, compulsory licensing.

Introduction:

Until the late 1960s, public sector firms such as Hindustan Antibiotics Limited and Indian Drugs and Pharmaceuticals limited and a host of global companies dominated the Indian Pharmaceutical Industry. United States Senate Committee (The Kefauver Committee) found in the 1960s that India was among the highest priced nations in the world in pharmaceuticals. (1,2) 90% of the Indian Pharmaceutical Industry was dominated by the Global companies that imported most of the drugs. During the early 1970s, the Indian players gradually gained prominence as a result of the Indian Patent Act, 1970 which allowed Indian companies to reverse engineer Patented Molecules and launched them in the domestic markets. (3)

Indian Patent Authority allowed only Process Patent, and not product patent. So manufacturers could copy foreign patented drugs, and with a minor change in the process, they could make them available to the common man at an affordable price. As a result, by the end of mid of 1980, imports reduced drastically, and by the 1990s, exports gained prominence.

Globally, the Indian Pharmaceutical Industry has emerged as the 4th largest in terms of volumes and 13th largest in terms of value by the 2000s. It is having a worth of about $ 5 billion, growing annually at about 10% and with over 20000 units in the organized sector. (4) The industry provides employment to about 3 million people, out of which about 5 lakh people are directly employed in the industry. In 2007, Medecins Sans Frontieres, the International Medical Aid Organization operating in more than 70 countries described India as the “Pharmacy for the Developing World”. (1,2)

The major players in the industry are categorized into two types: Companies with Indian origin (Domestic) and MNCs. In 2001, Ranbaxy, Cipla, Dr Reddy’s Laboratories and NPIIL were the top four domestic companies in terms of gross sales, while Glaxo-Wellcome, Hoechst-Marian-Roussel, Novartis India Limited were the major MNC’s operating in India.

The Indian Pharmaceutical Industry was in a state of transition with the implementation of TRIPS in 2005 being administered by WTO.
Intellectual Property Rights (TRIPS) set rules on Intellectual Property Rights/Patents and require Member Countries of WTO to reflect the same in their domestic laws.

Before the TRIPS Agreement, most of the developed countries granted patents on drugs, but many developing countries including India only granted patents for the process of producing an invention (For example, the method of producing a drug) but not for the product (the drug itself). As a result, generic copies of original drugs (generic drugs) were made or imported into these countries without getting permission from the patent holder. Hence, the prices of medicines were often lower because of generic competition against the patented drugs. The TRIPS Agreement attempted to end this practice by implementing the International Patent Law.

The high prices of medicines are the result of patents, which give their holders right to restrict their competition and therefore sell a certain drug in a monopolistic environment. TRIPS require many developing countries to enforce their patent protection which would restrain innovation and information flows. Moreover, prices of medicines would continue to rise, making access more difficult and adversely affecting the local pharmaceutical industry. Production of generic equivalents to expensive branded drugs will be limited because of 20 year patent protection for pharmaceutical products and processes.

In a pre-TRIPS period, many developing countries including India did not grant product patents, but process patents for pharmaceuticals, enabling domestic researchers to develop similar products through a process called “Reverse Engineering”. The implementation of TRIPS put an end to this practice. (5)

(I) TRIPS and Affordability and Accessibility of Pharmaceutical Products:

A TRIP is being implemented at a time when the developing countries are going through a severe health crisis. About one third of the world’s population lacks regular access to essential drugs. The situation is worse in Africa and India. In Africa, almost half and in India, 50 to 65% of the population does not have regular access to essential drugs.

The infectious diseases that are treatable (from a scientific point of view) account for 14 million deaths each year-most of them in developing countries. A number of factors worsen the situation in these countries, e.g., poverty and lacking access to health services. Efficient and affordable medicines could cut down the death toll if people had access to essential medicines. In developed countries, lives saving drugs have raised life expectancy of HIV-infected people dramatically, but this treatment is unaffordable for people in developing countries. (6)

In the pre-1972 period, when India had a product patent regime in drugs, MNC’s took full advantage of the product patent provisions and prevented the indigenous firms from producing new drugs. They charged prices as high as in the developed countries. Most poor people in developing countries pay for their own medicines-public health provisions and insurance facilities are low.

If product patent protection results in high prices, it is possible for the Government to intervene. TRIPS provide for some flexibility to member countries of WTO to take action to face the negative consequences of product patent protection. Within the scope of TRIPS, the following are the main flexibilities which developing countries can use:

(1) Provide exemptions from grant of patents in certain cases.
(2) Provide exemptions to product patent rights in certain cases.
(3) Limit data protection
(4) Provide for government use
(5) Provide compulsory licenses to non-patentees. (3,7)

(I) Exemptions from Grant of Patents:

Under Article 27(1) of TRIPS, patents will have to be provided for inventions, which are ‘new, involve an inventive step and are capable of industrial application. The agreement, however, does not define these terms. This provides some flexibility. A developing
country can interpret these terms so as to restrict the number of patents. (7)

(2) Exceptions to Exclusive Rights:

Patents basically confer on the patentee the right to prevent others from using the invention. But such rights are not absolute. All patent laws generally provide for some qualifications to such exclusive rights. Article 30 of TRIPS permits member countries to ‘provide limited exceptions to the exclusive rights conferred by a patent. This Act does not list the specific Acts for which exceptions can be provided. The following are the most significant and common exceptions which the national laws in many countries provided when TRIPS came into effect. (7)

(i) Early Working: The ‘early working’ provision is popularly referred to as the ‘Bolar’ provision or exception as it is known in USA. The Bolar provision is very important for generic entry. It permits generic entry soon after the patents expire, and, hence, allows the customers to benefit from competition and lower prices without delay.

(ii) Parallel Imports:

Under Article 28 of TRIPS, the patent owner has the exclusive right to prevent others from not only from making, using or selling the invented product or process in the country, but also importing from other countries. This is, however, subject to Article 6 on ‘exhaustion’. What it basically means is that the patent holder in a country cannot legally stop imports of patented products offered for sale in another country. Such imports are known as parallel imports.

(iii) Research and Experiment Use:

Section 47 of the Patents Act, 1970, which has not been deleted in the recent amendments, provides other exceptions. The patented product/process may be made or used by any person for the purpose merely of experiment or research including the parting of instructions to the pupils. However, it is also possible to exempt acts of experimentation even if made with commercial purposes.

(3) Limiting Data Protection:

To get marketing Approval for a new drug developed, innovator companies are required to submit test and clinical data relating to safety and efficacy to national health authorities. India’s Drugs and Cosmetics Act, 1940, which regulates the marketing approvals of new drugs, as well as the Patents Act 1970, the three amendments including the Ordinance of 2004 carried out to comply with TRIPS does not contain any provisions relating to test data protection. (7)

(4) Compulsory Licensing:

A proper compulsory licensing system is of vital importance to deal with the negative implications of product patent protection on prices. If generic companies are given licenses to produce a patented drug on payment of royalty, then competition among manufacturers would drive down prices, but the royalty paid to the innovators would continue to provide funds and the incentive for R&D. Both WHO and WHO have pointed out that compulsory licensing is one of the ways to strike a balance between promoting access to existing drugs and promoting R&D into new drugs.

In the amended Patent Act of 1970, an application for a compulsory license can be made under two sets of circumstances

(i) Under section 84, three years after sealing of the patent. An application under this section can be made on the following grounds:

(a) That the reasonable requirements of the public have not been satisfied or

(b) That the product is not available at a reasonably affordable price or

(c) That the patented invention is not worked in the territory of India.

Thus, under the Indian Law, if a patentee does not exploit locally the patented inventions, then compulsory licenses can be asked for.

(ii) Section 92, anytime after the sealing of the patent with respect to a patent notified by the Government as eligible for a compulsory license. The General principles in the amended Act sound very impressive.
The general principles note that patents are 
granted to encourage inventions and to make 
the benefit of patented invention available at 
reasonably affordable prices to the public, to 
secure that these are worked in India, and not 
to enable patentees to enjoy monopoly power 
by importing. (8)

(5) Government Use:

Article 31 of TRIPS dealing with compulsory 
licensing provides for special provisions in the 
case a national emergency or other 
circumstances of extreme urgency or in cases 
of public non-commercial use ‘Public use of 
patents’ or ‘Government use’ is a standard 
feature of patent laws in many countries. Under 
section 92, the central Government can notify 
in the official Gazette, the issue of compulsory 
licenses under special provisions as per article 
31 of TRIPS.

Trips provides a three stage frame for countries 
such as India which did not grant product 
patents rights in pharmaceuticals when TRIPS 
came into force on Jan 1, 1995.

(i) Introduction of a facility (‘mail box”) from 
Jan 1, 1995 to receive and hold product patent 
applications in the fields of pharmaceuticals 
and agricultural chemicals. Such applications 
will not be processed for the grant of the patent 
until the end of 2004. But, Exclusive 
Marketing Rights (EMR’s) can be obtained for 
that application if a patent has been granted in 
some other WTO member country and the 
application has not been rejected in the country 
as not being an invention.

(ii) Compliance, from Jan 1, 2000, with other 
obligations of TRIPS such as the rights of the 
patentee, term of patent protection, compulsory 
licensing and so on.

(iii) Introduction of full product patent 
protection in all fields including 
pharmaceuticals from January 1, 2005. All the 
product patent applications held in the mail box 
are also required to be taken up for 
examination from Jan 1, 2005. Compliance 
with the TRIPS requirements has taken 
substantial time in India.

The Patents (Amendment) Act, 1999 amended 
the Patents Act 1970 with retrospective effect 
from Jan 1, 1995 to implement the mail box 
facilities EMR’s. A fully fledged product 
patent regime has been introduced in India 
from Jan 1, 2005 through a presidential decree, 
the Patents (Amendment) Ordinance 2004 
dated Dec 26, 2004. The Ordinance, 
introducing product patent protection in 
Pharmaceuticals has been widely opposed both 
in India and abroad.

The Multilateral organizations such as WHO 
has urged the Government to enjoy the rights 
enjoyed under WTO to protect public health. 
When the Ordinance was followed up with 
necessary legislation and the Patents 
(Amendment) Act 2005 was passed by the 
Parliament in March 2005. (9)

(II) The Role of Multinationals in the 
Pharmaceutical Industry in India after 
TRIPS:

(1) Rising MNCs Dominance:

Indian generic companies are no longer 
permitted to manufacture new patented drugs. 
These can now be manufactured only by the 
patentees and their licensees. Thus depending 
on the rate of introduction of the new patented 
drugs, the market share of MNCs is expected to 
go up. The MNCs are not only interested in 
patented markets, they are also trying to enter 
aggressively into generic segments as well.

Traditionally, MNCs have relied for their 
growth in patented drugs and focused mainly 
on developed country markets. The high 
monopoly prices of patented drugs yielded high 
returns. But recent years have witnesses a sharp 
fall in the number of new drugs introduced in 
the market. The MNCs are finding it 
increasingly difficult to fill the product gap as 
the patents of their blockbuster drugs are 
expiring and they are facing constraints on 
further profitable growth in the developed 
markets. For example, Pfizer is set to lose a $ 
10 billion dollars a year revenue stream as the 
patent on its blockbuster drug Lipitor expires.

The net profit of the top 15 MNCs declined 
sharply by 20% in 2010 with a major setback
for companies such as Merck, Bristol-Myers and GlaxoSmithKline. On the other hand, some developing country markets are experiencing rapid growth. The seven emerging markets of China, Brazil, India, Russia, South Korea, Mexico, and Turkey contributed to more than half of the growth of the pharmaceutical market of the world in 2009 compared to only 16% of contribution by the developed country markets of North America, Western Europe and Japan. Therefore, the MNCs are targeting the generic industry in the emerging markets.

Involvement of MNCs in the generic market is not new in India. When product patents were abolished in 1972, all the major MNCs decide to stay back. GSK (Earlier Glaxo), in fact, remained the largest seller in the domestic formulations market till recently. But MNCs in general maintained a low profile. They were hesitant to introduce their latest products in the Indian market. Some of them continued to compete but created new local brands rather than promoting their international brands. Others stopped selling their products they thought were priced too low. (1)

In the post TRIPS era, MNCs are vigorously trying to expand not only in the patented markets, but also in the generic market of India. MNCs such as Pfizer, GSK and Merck have introduced some of their blockbuster drugs in India. Examples are azithromycin and quinapril by Pfizer, simvastatin by Merck and carvedilol by GSK. In fact, MNCs are marketing the products of other MNCs in the Indian market. Pfizer, for example, is marketing telmisartan developed by Boehringer Ingelheim.

MNCs are now forming strategic alliances with Indian companies. Indian companies such as Dr Reddy’s Laboratories, Aurobindo, Cadila Healthcare and Torrent have entered into supply agreements with MNCs such as GSK, AstraZeneca and Abbott. Dr Reddys, for example will supply about 100 branded formulations to GSK for marketing in various emerging markets across Latin America, Africa, West Asia and Asia-Pacific including India. Dr Reddys will get a predetermined share of the revenue earned by GSK for these products. In some markets where Dr Reddys have a presence, the formulations will be marketed jointly.

Another example is Aurobindo-Pfizer deal. Aurobindo will supply more than 100 formulations to Pfizer for the regulated markets of US and the European Union (EU) and more than 50 products for about 70 non-US/EU Markets. Apart from the revenue sharing, the deal involves the payment of upfront license fees by Pfizer to Aurobindo. Such deals enable the MNCs to get access to low-cost reliable products without undergoing the lengthy process of getting regulatory approvals in different markets and without incurring any additional expenditure for setting up manufacturing plants. The Indian companies gain by having access to formidable marketing resources of MNCs. (1)

(2) Rising Imports of Finished Formulations:

The new drug policy, 1978 (revised in 1986) imposed restrictions on FERA companies (i.e. those with more than 40% equity) which were not applicable to Indian companies. One of the most important policies that were implemented was that the MNCs were not allowed to market formulations unless they themselves produced the bulk drugs in specified ratio. This compelled the MNCs to undertake manufacturing investments from the basic stages. In fact, together with the Indian companies, the manufacturing activities of MNCs too expanded after 1970’.

But after the mid-1990 with the withdrawal of such restrictions, the MNCs started disinvesting in manufacturing operations. They have sold a number of plants which they had set up under Government pressure. Thanks to the development of the bulk drug industry in India after 1970’ onwards, most of the bulk drugs are now produced by a number of Indian producers and are available at very low competitive prices.

In 1994, the investments in plant and machinery of the top MNCs was Rs 455 crores, accounting for about 70% of that of the top 10 Indian companies. However, by 2010, MNCs investments accounted for only 5% of the investment of Indian companies of Rs 13765
crores. Thus, the manufacturing activities of MNCs after economic liberalization are reminiscent of the 1950s and 1960s when the official policy was quite liberal but the MNCs were reluctant to undertake manufacturing.

What has attracted widespread attention is India’s success as a pharmaceutical exporter. What is less noticed is that in recent years, imports of formulations have been rising sharply. Exports exceed imports, but between 1995 and 2010, imports were grown at a faster rate than exports leading to a decrease in trade surplus in formulations. (1)

(3) Market Structure and Prices of Patented Products:

The reintroduction of product patent protection since 2005 has crucial significance. Though product patent have been introduced since January 1, 2005, earlier from January 1, 1995, a mail box facility was put in place to receive and hold patent applications. As per the TRIPS Agreement, these applications are being processed since January 1, 2005 for the grant of patents.

Indian generic companies are no longer permitted to manufacture and market new drugs for which patents have been granted in India. But not all new drugs are patentable in India. Under article 70(3) of TRIPS, a WTO member country has no obligation to provide protection for any subject matter which has fallen into the “public domain” before the WTO came into being i.e. before January 1, 1995. Thus any drug product patented abroad before 1995 can continue to be manufactured and sold in India after 1995 even though these may be under patent protection in other countries.

Drugs patented after January 1, 1995 can be classified into the following categories:

(i) Those involving new chemical entities (NCEs) also known as new molecular entities (NMEs) and new biological entities (NBEs) patented after 1995

(ii) Those involving NCEs/NBEs developed before 1995 but with patents after 1995 for:

(a) New formulations and compositions,

(b) New combinations

(iii) New chemical derivatives (Salts, esters etc)

According to article 27(1) of TRIPS, Patents are required to be provided for inventions, which are “new, involve an inventive step and are capable of industrial application”. This agreement, however, does not define these terms. This provides some flexibility. India has taken advantage of this flexibility by enacting Section3 (d) in the amended Patents Act and restricting product patents to some extent. Under Section 3 (d) India is not obliged to provide protection to any secondary patents (of new formulations/combinations/chemical derivatives) after 1995 involving NCEs developed before 1995 unless they differ significantly in properties with regard to efficacy. (1)

Conclusion:

The TRIPs negotiations of GATT Uruguay Round have altered the international system of Intellectual Property. The linkage of Intellectual Property issues to those of international trade led to the bilateral measures on the part of the industrialized countries and to the multilateral approach adopted within GATT. Developing countries opted to include intellectual property protection in the Uruguay Round because they cannot remain isolated in the age of market globalization, and their economic development depends on access to the markets of the industrialized countries.

The TRIPs Agreement has led to a reinforcement of the protection of intellectual property, particularly in many developing countries. From the point of view of transfer of technology, the imitation of technologies from industrialized countries and the marketing of the resulting products will now be more difficult.

The days of product monopolies and high prices are back in India. The MNCs have started marketing new patented drugs at exorbitant prices particularly for life threatening diseases like cancer. The
manufacturing and importing behavior since 1999s bears a close resemblance to that before the 1970s. Imports of high priced finished formulations are rising rapidly, with manufacturing investments are lagging far behind.

The MNCs are also expanding vigorously in the generic segments. They are trying to grow not only organically, but through mergers and acquisitions and strategic alliance with Indian generic companies. The aggregate market share in the formulations market has gone up substantially with the taking over of some Indian companies by the MNCs. The MNCs are on the way to dominating the industry again.

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