

Intellectual Property Rights and Transfer of Technology

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ABSTRACT

There is one important reason why the developed world is in favor of increasing the Intellectual Property (IP) protection level. The reason is 'trade'. It is trade that leads to imitation of products. Success in international trade requires competitiveness. There is incessant pressure on firms and countries to become competitive. This is what makes protection of intellectual property important, especially from the developed country and multinational firm point of view. This has led to inclusion of new subject matter being made protectable. Also new rights have been created.

With increase in knowledge intensity of production the individual inventor has been replaced by the corporate entity. The legal framework of the intellectual property system assigns rights to the first applicant rather than the first inventor. The developments in intellectual property law in developed countries are spreading to developing countries through the WTO by relating intellectual property rights to trade.

Any intellectual property rules have to balance two objectives: - Creating incentives for innovation through patents and spreading benefits of innovation as widely as possible. These objectives have the Hegelian dictum that 'an idea belongs to its creator because the idea is a manifestation of the creator's personality or self' and also as instruments for 'encouraging the maximum diffusion of knowledge by making it public'. This view suggests that knowledge is a public good. Intellectual property is based on 'exclusion principle' which refers to the exclusion of the non-owners of intellectual property from the benefits of any particular form of the property unless one is willing to pay a stipulated price to the owner of intellectual property.

With intensification of competition in the market, there is need to make your product more and more different and distinct from other competing products. This can also be termed as a shift in the focus from price competition to product characteristics and design. Take into

consideration the element of increasing international trade and we find the innovating firm attempting at keeping their 'trade secrets' away from its competitors. This anxiety of innovators leads to the requirement of intellectual property protection and further to a 'one size fits all' international patent system.

INTRODUCTION

Intellectual property (I P) rights are legal rights to certain creations of the mind such as inventions, work of art and literature, and designs (Dutfield, 2006). These rights have commercial importance and are source of wealth of individuals / firms / nations. Intellectual property rights assume various forms for ex. patents, copy rights, trademark etc. which can be called as property systems. The world is experiencing growth in those sectors which are using knowledge intensive techniques of production. Intellectual property rights are intended to protect creations of the mind which are basically ideas. In the words of Thomas Jefferson (Lipscomb, 1903), "the peculiar character of an idea is that..... he who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine receives light without darkening me". This peculiar character of an idea is what necessitates greater protection as ideas bring profit or income. Ideas are not tangible. The intellectual property regime can provide some characteristics of tangible property to intangible intellectual assets. The manifestation of intellectual property in various tangible assets is possible due to the legal framework offering support to the right to intellectual property. Patents are one of such tangible assets granted by law. By definition (Kulersa& Bruehl, 2002) a patent is a right granted by government to inventors for a fixed period, to exclude other persons from imitating, manufacturing, using or selling a patented product or from utilizing a patented matter or process.

Trade and Intellectual Property Protection

Trade is one important reason why the developed countries are in favor of increasing the INTELLECTUAL PROPERTY protection level. It is trade that leads to imitation of products. For mankind to prosper, trade is necessary. Success in international trade requires competitiveness. There is incessant pressure on firms and countries to become competitive. This is what makes protection of intellectual property important especially from the developed country and multinational corporations point of view.

With increase in knowledge intensity of production the individual inventor has been replaced by the corporate entity (Nachane, 1995). The legal framework of the intellectual property system assigns rights to the first applicant rather than the first inventor. The developments in intellectual property law in developed countries are spreading to developing countries through the WTO by relating intellectual property rights to trade.

Intellectual property rules have to balance two objectives: -

Creating incentives for innovation through patents and other measures and spreading benefits of innovation as widely as possible. These two objectives are conflicting in their nature. These objectives have the Heglian dictum that ‘an idea belongs to its creator because the idea is a manifestation of the creator’s personality or self’ and also as instruments for ‘encouraging the maximum diffusion of knowledge by making it public (Groski, 1995). This view suggests that knowledge is a public good. Intellectual property system is based on ‘exclusion principle’ which refers to the exclusion of the non-owners of intellectual property from the benefits of any particular form of the property unless one is willing to pay a stipulated price to the owner of intellectual property. Imperfect competition has inherent characteristic feature of product differentiation. With intensification of competition in the market, there is need to make your product more and more different and distinct from other competing products which leads to a limited monopoly. With the increasing science content in knowledge – intensive production, innovation allows the firm to enjoy the benefits of monopoly. It leads to a shift in the focus from price competition to product characteristics and design. We find the innovating firm attempting at keeping its ‘trade secrets’ away from its competitors. This anxiety of innovators leads to the requirement of intellectual property protection and further to a ‘one size fits all’ international

patent system. It is because of the conflicting interests of the developed and developing countries that the issue of harmonization of national patent laws has been a contentious issue since the later half of the 20th century.

Implications for Less Developed Countries

Patents are said to be the tools of economic advancement and are supposed to contribute to the welfare of society by making available a wide range of variety of goods, new goods, services and technical information. Inventive activity is based on an idea. An exchange of ideas leaves the exchanging parties with more ideas. An idea leads to invention of new technology. If we enquire into the history of technological advancement, we can conclude that it is the history of combinatorial innovation. Man has been making innovation by combining a new technique with some pre-existing technique. Many innovators in the world take into account the possibilities of permutations, combinations and re-combinations and keep experimenting simultaneously. This is what is called as ‘new combinations of productive means’ (Schumpeter, 1935). Intellectual property rights represent a bargain on this background where the basic idea acquires market value once it becomes a tangible intellectual asset in which the innovating firm is granted temporary or limited monopoly rights in exchange for the disclosure of the technical information.

On this background there are two controversial issues

1. Sovereignty of nation states and
2. The issue of harmonization of patent laws at the international level.

The rationale behind harmonisation issue is that if there are major differences between patent laws in different countries, the benefit will accrue to the patent seekers as they will apply for patents in countries which have convenient patent laws from their respective points of view. With this justification, attempts at harmonisation of patent laws were already under way on the platform of the WIPO (World Intellectual Property Organization). However industrialized countries also began pushing the issue of intellectual property rights by relating these to international trade on the parallel platform of the erstwhile GATT. ‘Trade related’ intellectual property rights was a major Uruguay round agenda item. Conceptualizing intellectual property as a trade related issue and the political strategy ultimately resulted in TRIPs (Trade Related Intellectual Property Rights). The people who were involved in conceptualizing TRIPs were representatives of

interest groups who are the main beneficiaries of the new regulatory system of intellectual property rights (Braithwaite and Drahos, 2000). Developing countries (especially G-10), opposed inclusion of intellectual property rights in the GATT negotiations arguing that the issue should be dealt with by specialized agencies like the WIPO and the UNCTAD and that GATT was not the appropriate platform.

Product Cycle Hypothesis

There is a hypothesis in international trade theory which has been advanced by Vernon that new products introduced by industrialized countries & produced with skilled labour eventually become standardized and can be produced in other countries with less skilled labour. There are, according to Vernon, four stages in the life cycle of a product (Vernon, 1971):-

- A. Innovation and introduction of the product in the domestic market.
- B. Saturation of the domestic market and search for foreign markets.
- C. The product becomes available in foreign markets.
- D. Exports from foreign countries to home markets (as a result of MNC activity).

According to Vernon, the developing country firms are likely to appropriate the last two stages of the product cycle as by the end of the second stage, production becomes standardised. This appropriation of the last two stages of product cycle is possible due to a weak intellectual property protection abroad. Thus, comparative advantage shifts from the advanced country to the less advanced countries where labour is relatively cheaper.

This product cycle model is seen as an extension of modern theory of trade into a technologically dynamic world.

Foreign imports claiming a large share in the developed country markets prompted some multinational corporations in taking the lead in the conceptualization of TRIPs. TRIPs is meant to stop the 'imitating' countries from accruing the benefits of innovations in the developed world.

Krugman's World

Paul Krugman says, "I postulate a world of two countries: innovating North and non-innovating South. Innovation takes the form of the introduction of new products that can be produced immediately in North but only after a lag in South. The lag in adoption of new technology by South is what gives rise to trade" (Krugman, 1994). A classic example of product cycle model (Salvatore, 2006) is the experience of US and Japanese radio

manufacturers. After World War II, US firms dominated the international market for radios, based on vacuum tubes developed in the US. However within a few years, Japan was able to capture a large share of the market by copying US technology and utilizing chapter labour. The US recaptured technological leadership with intellectual property with the development of transistors. But again in a few years, Japan imitated the technology and was able to undersell the US.

Strengthening the intellectual property protection (by lengthening of patent duration) has a negative effect on the rate of innovation when imitation is the only channel of international production transfer.

There is a developing country view point to the product cycle theory based on the argument of sharing the benefits of development with the poorer countries which is quite close to Stiglitz's proposals for 'Making Globalisation Work' (Stiglitz, 2006) after he discussed the discontents of Globalisation. The point is that the developed "North" (in Krugman parlance) should in fact let technology get transferred to the developing 'South' through trade. This will definitely have a favorable impact on the speed or pace of innovation in the developed countries, as the lag between innovation and imitation allow temporary monopoly to prevail. If intellectual property protection is given for a longer period (as it is given for 20 years in the case of patents) it allows extension of the temporary monopoly, enjoyed by innovating firms. This extension of temporary monopoly actually reduces the pace of innovation which is not desirable from the point of view of technological progress.

CONCLUSION

Neither monopoly nor its extension is in line with the spirit of competition and openness which is being aggressively advocated and promoted by Brettonwoods institutions and the WTO. Also transfer of technology and reverse engineering, have welfare effects especially in developing countries as the so called imitation facilitates low cost production without being required to invest in R & D activity. It is also noteworthy that in today's world, transnational corporations have become the dominant suppliers of technology and that technical innovation in the developed countries is of the labour – saving, capital – using variety and is inappropriate to the factor endowment situation in Less Developed Countries. Hence, even if we accept the product cycle model as an extension of the Heckscher – Ohlin theory of trade, we should also accept the

assumption of the modern trade theory that the labour – abundant economies in developing countries are bound to lag behind in technical innovation which is getting increasingly labour – saving in nature. In Bifiani’s words, “It is somewhat ironical that liberalisation of international trade will be now pursued through the growing global monopolisation of one of the most important factor of production that is knowledge’ (Bifani, 1990).

Besides these theoretical dilemmas there are the institutionalist aspects to the issue of intellectual property rights. Property rights is an important economic institution. Any change in the rights structure has distributional implications at the domestic level on the one hand and on the international level on the other, considering the emphasis on harmonisation of intellectual property laws. According to Drahos (Drahos, 1999) “property rights that emerge in the market are not necessarily efficient..... those with the capacity to design property rights may be more interested in rents than efficiency”. The costs involved in actual grant of intellectual property rights in tangible forms like patents may involve astronomical costs that can go well beyond the reach of an individual innovator. “The legal institutions of intellectual property place fences not just on inventions that are someone else’s property, but on the public domain of knowledge that is nobody’s property”. Any change in economic institution involves costs as well as benefits. Gains for some organised interest groups such as firms, lawyers may accrue at the cost of consumers or small firms and individual innovator as the large firms will definitely have an upper hand in this system.

New knowledge is always constantly being generated by innovators all over the world. Therefore it is inexhaustible. If a patent converts intellectual property into a monopoly, it can have detrimental effects on the consumers if monopoly price is charged.

There has to be flexibility regarding patentability under national patent laws. Also there should be

recognition of responsibility by developed countries of sharing gains from technological advancements with the developing countries by allowing transfer of technology through flexibility in patent laws. Governments in respective developing countries should be aware of the distributional effects of intellectual property rights and require the patent holding firms in the case of drugs for the cure of lethal diseases (to ease the burden on poor people) by bringing in competition or unrestricted parallel importing and thereby lowering prices.

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