INTELLECTUAL PROPERTY RIGHTS IN DEVELOPING COUNTRIES

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ABSTRACT

The present study survey the recent literature on the economic implications of strengthening intellectual property rights in developing countries. First, the study identifies the theoretical concepts and empirical methods that are frequently applied to this topic. Then specific economic studies that are addressed this topic in the last ten years. Finally, the study identifies the most common findings in the literature.

Key Words: *IPR, The North, The South*

INTRODUCTION

Intellectual property rights (IPRs) are the rules which are formed to protect the inventions from being copied by others. This is done in order to protect the economic value of the new creation which is done by the innovator. Granting Patents rights, copyrights, trademarks, and trade secrets are some of the main forms of IPRs. It motivates the inventor for new creations by rewarding them with the right of getting it protected from the others. It helps to avoid competition. One of the drawbacks can be that it limits the spread of technological advances and it tends to create market power. This creation of monopoly power can lead to the implication higher prices for consumers. A trade-off has been witnessed between incentives for innovation and growth (dynamic efficiency) and competitive pricing (static efficiency). Therefore, any policies are formed by keeping this whole scenario and keeping these conflicting interests in the mind. Considering the international trade and investment, this tradeoff is even more complicated.One of the main issues to look upon is the significant differences in IPR regimes across the different countries. Huge gap lies between the strength of IPRs in advanced or developed countries (these advanced countries are referred to as The North, the reason behind it is that as most of the developed advanced nations lie in the Northern Hemisphere) and developing countries (these developing or under developed countries are referred to as The South, the reason behind it is that as most of the developing nations lie in the Southern Hemisphere). These differences in the strengths of IPRs have a noteworthy impact on international economic activity. Constant attempts have been made to decrease the gap between the developed and developing nations by strengthening IPRs in the developed nations(South). For instance, in the WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) formulated during the Uruguay Round. These attempts certainly have economic costs and benefits that are not evenly distributed between the developed and developing nations. Researchers have been working on to investigate the cost and benefits which these North south nations receive by agreeing to the agreements (such as of TRIPS). Some of these researchers have developed theories and models of international trade, foreign direct investment (FDI), and technological innovation on them. In the recent times it has been a big topic of debate between them. The models formulated by the economic theorists are used to predict if a country would try to strengthen its IPRs by bring reforms in them. The models also help to analyze the cost benefit which a country might reap from strengthening their own IPR regimes. Various theories and models have been used to analyze the effects of IPRs on wages and economic welfare, FDI, and the form and extent of international technological transfer.

WHY COUNTIES HAVE DIFFERENT IMPLICATIONS FOR INTELLECTUAL PROPERTY RIGHTS

A theoretical model of trade between the North and the South was formulated by Lai and Qiu in an article named "The North's Intellectual Property Rights Standard for the South," in 2003. In his article he brought forward the fact that as the developed advanced countries (The North) has huge capacity for innovation so their new creations have high demand in the developing countries (The South). This is the reason that the advanced nations need to have stronger IPR regimes than the developing nations (The South). The introduction of the international agreement strengthens the South's IPRs relative to the North's. This helps in boosting the global welfare. Still the North benefits more than the South, as the developed nations focus on higher profits while keeping the consumer prices unchanged. This leads to net positive effects. On the other hand in the developing nations, i.e. in the South, consumer prices are not kept constant; they continuously raise which results in the net negative effects. Lai and Qiuwere of the opinion that the developing nations will not be willing to strengthen their IPRs until unless they receive some form of compensation. The reason behind it is that the developing nations (The South) has a comparative advantage in goods that are not patent-intensive. Lai and Qiu also gave a multi-sector negotiation model. In this model they explain that the two countries bargain and negotiate over the strength of IPRs in the South and tariff levels in the North. In the multi-sectoral negotiation the north lowers its tariff rates, while the South, i.e. the developing nations agree on stronger IPR regimes. Not a single-issue agreement but a multi-issue agreement can only result in economic gains for both the North and the South. Grossman and Lai's 2004 study, "International Protection

and Intellectual Property," is similar to that in Lai and Qiu (2003). The difference they brought forward was the fact that when the countries trade with each other the relative size of the countries' markets and their relative productive capacity in innovation do affect the countries' incentives and will to strengthen their IPRs. Since its clear that developed nations (The North) has more R&D capacity and larger markets so they are more willing to strengthen their IPR regimes than the developing nations (The South). Grossman and Lai show that there is a level of patent protection that maximizes global economic welfare, and it can be achieved with different combinations of country-level patent protection. However, different policy distributions for IPRs have different implications for welfare in the North and South. Policies that maximize incentives for global research are beneficial for the North. Chen and Puttitnunin their article entitled "Intellectual Property Rights and Innovation in Developing Countries" in 2005 brings into light that how the innovation capacity of The South effects the IPR policies. They gave a model and claimed that every country has two sectors, an import sector and a local sector. The import sector has a foreign firm, which supplies it innovative patented technology to the country to produce high quality goods. The other is the domestic firm that can copy that technology to some extent that is determined by the regimes of IPRs. The local sector also has two firms, one which develops innovative technology and the other which only imitates this technology. More the protection of IPRs, lesser would be the imitation in both the sectors. In the import sector, higher IPRs imply that lower-quality goods will be produced by the domestic firm and that there will be less price competition for the foreign firm, resulting higher prices and a reduction of consumer surplus. However, in the local sector, higher IPRs imply more incentives for innovation. Based on their model, Chen and Puttitanun hypothesize that very poor countries will provide strong protection for IPRs in order to ensure access to foreign technologies; middle-income countries will provide relatively weak protection to facilitate domestic imitation of these foreign technologies; and advanced countries will provide strong protection to benefit their own innovators.

EFFECTS OF IPR REFORMS

Park and Lippoldt (2005)in their article titled, "International licensing and Strengthening of Intellectual Property Rights in Developing Countries during the 1990s." studies that stronger IPRs in The South (developing nations) encourage technology transfer through international licensing. A firm level data was used for analysis. Their findings suggested that US firms get receipts of 32%from international loyalties and license fee, 30% from pre-recorded performances, around 20% from general use of software, and 9 percent from trademarks. U.S. parent firms got 80% of their licensing receipts from the countries where per capita GDP was more than $18,000 (in 1995 U.S. dollars), and 73 percent of receipts were from other affiliated parties.

Chaudhuri, Goldberg, and Jiagave an article titled "Estimating the Effects of Global Patent Protection in Pharmaceuticals: A Case Study of Quinolones in India." They examined patent intensive pharmaceutical industry and studied the effect of how the application of patents affects the sales of antibiotics in India. The study showed that strengthening IPR regimes have an indirect effect .i.e. Poor countries may reduce consumer access to life-saving medicines. Chaudhuri, Goldberg, and Jia also estimated the price elasticity of demand and expenditure elasticity of demand for antibiotics in India. An econometric model was used for the analysis and product-level data for 1999 and 2000 was used. They concluded that there would be huge losses incurred in consumer welfare due to higher prices and due to less variety of products.

Arora, Branstetter, and Chatterjee gave a study entitled, "Strong Medicine: the Impact of Patent Reform on the Indian Pharmaceutical Industry." They tried to analyze the effect of reforms in IPR on the domestic innovation in India. 315 Indian pharmaceutical firms were considered in the study. They found that the reforms brought positive effects on the Indian stock market values and R&D spending. Their theory was significant different from the others as they acknowledged that strengthening IPRs in developing countries can encourage domestic innovation. They supported this fact by givingevidence of Indian pharmaceutical firms which initiated innovations due to strong IPR regimes. Park in 2012 gave a study entitled"North-South Models of Intellectual Property Rights: An Empirical Critique."He uses panel data analysis on R&D carried out by U.S. multinational firms and their affiliates. The data was collected from the U.S. Direct Investment Abroad Survey which is published by the U.S. Department of Commerce, Bureau of Economic Analysis, as well as indexes of patent protection in individual countries weighted by market share. Park's model used R&D investment as a dependent variable, and domestic and foreign patent protection as independent variables.He had a concrete analysis on how the IPR reforms in The South (the developing nations) effects the R&D expenditues of the North (developed nations).

CONCLUSION

This article has demonstrated that the economics of trade-related IPRs is an active research area with many interesting questions. While the literature continues to advance with the development of richer data sources, most of the questions have not been conclusively answered, and there is a need for further study. However, several preliminary themes find support in the 10 studies we have reviewed. First, the strengthening of IPRs in the South appears to have little effect on the level of R&D expenditures and the rate of innovation in the North. But it apparently has a positive significant effect on the rate of international technology transfer from the North to the South. Second, strengthening IPRs in the South has an ambiguous effect on international trade from the North to the South, but has a significant positive effect on FDI in the South. Stronger IPRs can reduce technology imitation and therefore create a market in the South for innovative products exported from the North. On the other hand, strong IPRs can encourage local production through FDI that displaces North-

to-South trade in these products. Third, stronger IPRs in the South usually benefit the North at the expense of the South. However, there are well-defined cases in which stronger IPRs can benefit the South. Stronger IPRs can induce FDI and technology transfer and increase labor demand in the South, and in some cases they can increase innovation in the developing countries.

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