Patents: Territoriality versus Harmonization

Zahra. Honarmand Shahzileh, and Ali. Mashhadi Aghajan

***Abstract*—** Patent laws are territorial, meaning that the monopoly of a patent conferred by a country is only granted within the sovereign of that country. There are good reasons for territoriality of patents and existence of different systems. These consider the history of a nation, its social conditions, economic situations, political issues which go beyond merely technical issues. However, today the increase of globalized economic activities leads to a need for more harmonization. This paper is aimed to discuss the territorial nature of patents and specify the use limitations of extraterritorial patent laws. It also reviews the advantages and disadvantages of a global harmonized patent system. The paper concludes that there should be an optimized level of balance between patent harmonization and patent diversity.

***Keywords*—** Patents, Territoriality, Extraterritoriality, Harmonization.

I. Introduction

INTELLECTUAL property rights (IPRs) are of the oldest institutional arrangement that is particular to innovation as a social phenomenon [1]. IPR's philosophy is to enhance the welfare of the society, at the expense of providing the innovators with the monopoly rights in order to motivate their creativity and innovation. Patents are generally the most important and representative of IPRs [1]. Patents like other IPRs are territorial. It means that the rules of granting a patent differ in various countries. And grant of a particular patent has effect only within the territory of that country and does not have any effect in any other country. Requirements for patentability are territorial as well and so different in various countries. Generally, the five primary requirements of patentability are: l) patentable subject matter 2) Novelty; 3) Utility; 4) non-obviousness and 5) enablement [2].

History of patents has been divided to six eras by Granstrand [1], including Non-Patent Era, Pre-Patent Era, The national Patent Era, The Multinational Patent Era, The international Patent Era, The pro-patent/ pro-IP Era.

One of the first international agreements in terms of patent rights was the Paris Convention. The goal of the Paris Convention was not to create an international patent system, but it was to persuade individual countries to have their own patent system, being national in scope [3]. Many of national treatment of patent rights were also brought in the TRIPs Agreement. In Paris and TRIPs Conventions territoriality concept is maintained. Patent policymakers are already trying to extend the patent harmonization beyond TRIPs.

As patents are territorially granted, patent holders, who operate in several countries, require protecting their inventions in various countries where they wish to work. They usually encounter some special problems, as the patent systems in different countries are not the same. Considering these issues, patent practitioners and policymakers are trying to establish a next stage of international harmonization. Many scholars believe that different local rules would become a constraint on economic development. There had been situations when the territorial protection of inventions was unreasonably insufficient. In such circumstances the rules and acts of one country could reach to another country. However, there are some sources of limitations for using extraterritorial patent laws. Considering the constraints of extraterritorial protections, more international harmonization is sought for. However, it has been controversial that if a harmonized patent system can help to enhance the quality of patent systems. Many legal scholars have investigated the consequences of patent harmonization. The goal of this paper is to explore the advantages of patent harmonization and also find out what costs it will entail.

II. Patent territoriality and extraterritoriality

The general principle of territorial patent law is the same throughout the world [4]. In U.S. Patent Act infringing activities are addressed under 35 U.S.C. § 271 (a), stating that "A person may be liable for patent infringement if he or she makes, uses, offers to sell, or sells any patented invention, within the United States."In the case of Microsoft Corp. v. AT&T Corp[1], the Supreme Court of USA stated: "The presumption that United States law governs domestically but does not rule the world applies with particular force in patent law. The traditional understanding that our patent law operate[s] only domestically and d[oes] not extend to foreign activities, is embedded in the Patent Act itself, which provides that a patent confers exclusive rights in an invention within the United States".

Dinges [5] in his work states that, the new emerged technologies which their subject matters are geographically discrete result in new limitations for territorial patent law. The examples of such technologies are computer and telecommunications networks. In Decca Limited v. United

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[1] Microsoft Corp. v. AT&T Corp., 550 U.S. 437, 454-55 (2007).

States, the Court of Claims of U.S. investigated the territorial scope of patent infringement liability[2]. In this case, a navigation system was within the USA while its components were located in Norway. The system required the distribution of transmitting stations around the world.[3] The court used the control and beneficial use test: the "control of the equipment outside the United States, from the United States and ... the actual beneficial use of the system within the United States". The Court determined the patent infringement liability for the systems.

Patent rights are territorial, unless there is a clear intent to the contrary [4]. According to the extraterritoriality doctrine, the holders of patent rights in one nation can assert rights to protect their rights against infringements in other nations or regions [3]. The limits on extraterritoriality in U.S. are derived from three major sources [5]:

- **Role of International Treaties:** The Paris Convention and the TRIPS agreement are two major sources of international treaties. In none of these two treaties the extraterritorial enforcement of patent rights are recognized.
- **Role of International Comity:** The principle of comity requires that sovereign nations respect each other's jurisdiction by limiting the reach of their laws[5].
- **Role of the Supreme Court of U.S:** The Super Court has indicated that the patent laws of U.S. are to be given no extraterritorial effect. The Supreme Court has refused to give extraterritorial effect to U.S. patents[6]. However for avoiding too easy infringements, congress In Deepsouth Packing Co. v. Laitram Corp. [7] enacted 35 U.S.C. § 271(f). In many different scenarios liability for patent infringement have aroused when much of the parts of the issue has occurred outside the United States [6]. Sections 271(f) and 271(g) can reach a subset of activities occurring outside the United States, unlike section § 271(a), which is directed only to activities "within the United States." [5]

III. Patent Harmonization

Kimura [7] in his paper has mentioned the history of patent harmonization: Articles 2 and 4 of Paris Convention in 1883 made harmonization in terms of national treatment and priority right, respectively; moreover, PCT in 1978 is a treaty for standardizing the formalities and international preliminary examination.

Duffy [8] in his work states that the second half of the twentieth century saw the rise of a broad movement to harmonize patent laws across nation-states.

The advantages of patent harmonization are:

✓ **Removing Jurisdictional Externalities:** To avoid jurisdictional externalities harmonization is required. The nations who do not adopted a patent system will free-ride off the inventions of the countries who maintains a patent system. In such a situation, the investors, inventors, and customers in countries with a patent system pay more than the nations without a patent system [8].

✓ **Economies of Scale in Governance:** Due to reduction in administrative costs, it is believed that a global patent system will deliver reduced costs for inventors and for their assignees [8], [9].

✓ **Preventing Destructive Protectionism:** Restraining destructive protectionist is based on the view that protectionism reduces overall social welfare [8], [10].

✓ **Simplification of the process of obtaining the patent:** Due to territorial patent laws, there have been dissimilarities in the patentability requirements of the countries. With the harmonization of substantive patent law this process can be simplified for all applicants [11].

✓ **Reduction of work load of the patent office:** If the laws of countries are harmonized, then the search and examination report of one country can be relied by other countries, including some steps such as determination of range of prior art, claim system, claim interpretation. So, substantial work load reduction will be resulted [11].

✓ **Broadening of patentable subject matter:** Patentable subject matters vary among countries. Some countries have more restricted patentable subject matters. One advantage can be chances of more broaden subject matters of patentability, related to new generation technologies such as information technology, biotechnology and nanotechnology [11].

✓ **Increase of the predictability of the patent:** With the harmonization in place, if an invention can obtain a patent in one country, the probability of gaining a patent in another country for that invention is predictable. This will increase the legal certainty [11].

✓ **Reduction in cost of Patenting**: With the harmonization in place, the procedure, forms and formats will be unified. As a result the cost of patenting process will decrease [11].

Although patent harmonization can have significant advantages, it will lead to some costs as well which Nalini has discussed some of them:

➢ **Reduce the policy space of the government:** Harmonization will reduce the flexibility of the governments. They have customized the laws with the different aspects of their territoriality such as economic, social, and cultural, and industrial issues [11].

➢ **Disadvantages due to strong IPR:** If there is a strong IPR, the manufacturers of patented device will prefer to deliver their businesses to the countries with more appropriate conditions. So other countries will lose the opportunity to create employment for the society [11].

➢ **Export of mistakes from one system to other:** In a harmonized patent system, a mistake will easily distribute

[2] 544 F.2d 1070 (Ct. CI. 1976).
[3] Decca, 544 F.2d at 1075.
[4] EEOC v. Arabian Am. Oil Co., 499 U.S. 244, 248 (1991)
[5] Hartford Fire Ins. Co. v. California, 509 U.S. 764, 817 (1993) (Scalia, J., dissenting).
[6] Dowagiac Mfg. Co. v. Minn. Plow Co., 235 U.S. 641, 650 (1915) ("The right conferred by a patent under our law is confined to the United States and its territories.
[7] Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 531 (1972).

among all patent offices, and cannot be detected and modified [11].

- **Absence of best practice:** Due to harmonization there will not be any best practice, as provisions of the laws of all the countries will be the same [11].

- **Different concerns of Developing and Developed Countries:** It is clear that countries in different stages of development have different needs and expectations from IP system. For having a harmonized international patent system, developed, developing and least developed countries have to find a centre of gravity to reach an agreement which balances their different points of view. Generally, developing countries are reluctant to issues that are among basic interest of developed countries. They feel that developed countries fail to address their primary interest, such as subsidies in agriculture, public health and the protection of biodiversity and genetic resources [12].

- **Ignoring the Value of Continuous diversity Experiments:** Individual nation's experiments have strengthened and improved patent system. There are examples of ongoing experiments with new innovations [8], [13]: 1- business method patents and. In State Street Bank v. Signature Financial Group the Federal Circuit's of U.S. decided that business method, alike other classical subject matter could be patentable. The decision made jurisdictions rethink about their business method. The Japanese Patent Office (JPO) has followed the lead of State Street in permitting patents on business methods. However, the European Patent Office appears to be maintaining the prior traditional rule. 2-the experimental use exception to infringement: In U.S. law, there is some experimental uses exception to infringement. The use has to be "truly narrow" and not to extend to research activities with "definite, cognizable, and not insubstantial commercial purposes."[8] Many nations are not following the United States on this issue; and they follow their own direction [8].

IV. Discussion

The policy question is that what the optimized balance level of patent diversity and patent harmonization is. Legal scholars believe that diversity has its own worth; it has at least two potential values: it can match the level of public goods to the tastes and resources of the local population and lead to inter-jurisdictional competition. Another potential value is that it can result in desirable experimentation and innovation in law [8].

In regard to positive externality problems of diverse patent systems, it is said that the externality problem with most environmental controls is limited to some geographic lands and benefit only neighboring or downwind jurisdictions [14]. Also, it is expressed that economies of scale of administrative examination systems is only limited in some respects [8]. It is generally believed that a number of competing patent offices with overlapping, worldwide jurisdiction would serve better, as they can compete with each other; and the patent applicants can choose a patent office for prosecution, based on the quality of their examinations.

To sum up, Countries should select best practices from among various patent systems without adhering to the systems of their own. If national and international policymakers value variety, the patent law would be enriched [11].

V. Conclusions and Recommendations

Many similarities can be found in different systems of countries and many of the differences can well be overcome through a systematic cooperation and effort [5].

International harmonization can have several advantages, including jurisdictional externalities, economics of scale in governance, preventing destructive protection, simplification of the process of obtaining the patent, and etc. On the other hand, a completely harmonized patent system will lead to special problems. It will be very difficult to establish a full harmonization standard for patent system which addresses all the concerns of the developed and developing countries. Harmonization may have its costs as well. It includes reduction of the policy space of the government, disadvantages due to strong IPR, export of mistakes from one system to another, absence of best practice, and lack of diversities.

There has been a great debate in law in terms of the choice between uniformity and diversity [15]. Generally, diversity of law should not be viewed as a problem for harmonized patent system; ongoing experimentation and innovative laws may lead to the evolution of law. Totally, further steps at "harmonization" should preserve a certain amount of diversity.

[8] Roche Prods, Inc. v. Bolar Pharm. Co., 733 F.2d 858, 863 (Fed. Cir. 1984).

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