

# The Role of Intellectual Property in Building Economic Strength in Developing Countries

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Intellectual Property Rights (IPR) may seem like a low priority to a country that is struggling to ensure the basic needs of its population. However, it is undeniable that by attracting investments from comparably wealthy nations, emerging countries can accelerate their own economic growth. Assuring those wealthy nations that it is safe to outsource their manufacturing to a developing country or to bring in their proprietary manufacturing processes are key factors in generating investments.

While the United States, Japan, and industrialized European countries remain the leaders in patent filings around the world, emerging economies seem to have begun recognizing that patents can play a significant role in encouraging investments and stimulating local innovation.<sup>1</sup> Since 1995 there has been a significant increase in the number of patent applications by residents and non-residents of economically developing countries, such as the Republic of Korea, Peoples Republic of China (PRC), India and countries of South America, such as Argentina, Chile, and Brazil.<sup>2</sup> The rate of increase appears to follow the developing country's economic growth, with more filings in those countries with more advanced economies.

Not surprisingly, patent filings by non-residents of emerging economies have increased at a greater rate than the filings by country residents<sup>3</sup>. In this age of globalization, transnational companies often look to developing countries for their manufacturing or assembly facilities to reduce labor costs or garner a more supportive governmental environment than they might find at home. However, these companies are not likely to bring their proprietary technologies into a country where this intellectual property can not be protected. Local patent systems become important tools for attracting and protecting these investments. Countries with enforceable intellectual property protection systems stand out in the global marketplace. Those countries

become appealing places for transnational companies to do business.

As transnational companies bring their technologies to developing countries with enforceable intellectual property systems, homegrown improvements by local residents are spawned. These improvements may come from the resident subsidiaries of the transnational corporation that introduced the foundation technology, from resident individuals, or universities and public laboratories. Patent applications from resident filers developing the improvements will follow. Although these may come later and be less frequent than those from non-resident filers, each step forward helps the local economy and brings expertise, confidence, and revenue to residents.

Eduardo da Motta e Albuquerque, an adjunct professor at the Universidade Federal de Minas Gerais in Brazil, has written on several differences between the Brazilian national system of innovation and those of developed nations.<sup>4</sup> He notes among the differences (1) the relative importance in Brazil of patents to individuals as opposed to firms, suggesting innovations that required less capital expenditures; (2) the relative productivity (in terms of patenting) of firms' technological efforts, noting his view that not only do Latin American firms under-invest in R&D innovation, but that also little patenting activity results from such a low effort; (3) that in Brazil, between 1980 and 1995, 1,207 firms (62% of patent owner firms) were granted only one patent, and only 35 firms were granted at least one patent a year in the referenced period, signifying a lack of continuity in patenting activity by firms; (4) the relative importance of patenting by foreign owned firms; and (5) the character of the innovations generated by the firms seeking patent protection were predominately adaptive innovations suggesting improvements over imported technology from countries with strong innovation systems by subsidiaries in countries with weak systems.

Brazil is one example of a country in which patented, imported technologies

have begun to generate homegrown improvements. It is logical to expect that the growth of resident innovations will continue to increase number and scope as Brazil's economy expands.

The WIPO Patent Report (2006) lists the top 20 patent offices around the world according to the total number of patent application filings in 2004, the most recent year for available statistics. In addition to the Republic of Korea and the People's Republic of China, the patent offices of Brazil, India, Mexico and Argentina are also included.<sup>5</sup> The filings in each of these countries are from resident as well as non-resident inventors. This shows that all of these countries are trying to develop their own intellectual property, as well as protect foreign investments in their economies.

The number of patent applications filed in a country, while a reflection of at least an expectation that the patent system will provide a measure of protection, is not necessarily directly proportional to the strength of that country's intellectual property protection regime. The role of IPRs in developing South American countries and other emerging economies cannot be judged by the number of patent filings alone, as each patent system has its differences as well as its similarities with those of mature economies such as the United States, Japan and Germany.

## DOES ONE SIZE FIT ALL?

There is a tendency toward internationalizing the patent systems of the different countries due to the international treaties and agreements such as the World Trade Organization's Agreement on Trade related Aspects of Intellectual Property Rights (TRIPS). The TRIPs agreement clearly affects how innovation will be protected in developing countries. There remain, however, strong incentives, particularly among immature but emerging economies to adjust their patent systems to meet national requirements for economic development.

The international model of the WTO may not be the most appropriate system in all cases, according to Naazneen Barma of the University of California, Berkley. Ms. Barma cautions that an international standard may inhibit local innovation. Developing countries like Argentina, Chile and Brazil might look to integrate international IP standards into national systems to maximize the benefits of a system that both protects imported innovation to encourage

foreign investments and encourages local innovation through honest reverse engineering<sup>6</sup> and technology transfer through people via temporary migrations to industrialized nations.<sup>7</sup>

In this regard it has been suggested that; “Emerging economies could, for example, become the promoters of a transnational innovation system in which properly balanced IPRs were not an end in themselves but rather the means of generating more scientific and technological innovations by honest means, and foster the exchange between innovators at work on common technologies.”<sup>8</sup>

Emerging countries are certainly testing the waters in terms of IPR. Chile submitted a report to World Intellectual Property Organization (WIPO) Provisional Committee on Proposals Related to a WIPO Development Agenda, calling for the protection of information in the public domain.<sup>9</sup>

According to an Intellectual Property Watch report in January 2006, Chile outlined several concerns in their WIPO report. These concerns are also the concerns of other developing countries with recently emerging economies. Technology innovation is costly. Local businesses in emerging economies do not have the capital for sustained Research & Development (R&D) programs. They rely more on imitation, reverse engineering, and incremental modifications. It has been common for emerging countries to begin with a lax intellectual property system and as their economies have developed and matured, develop a more stringent system.

In its proposal, Chile highlighted the benefits to society of freely available public information. Developing countries have raised concern that WIPO is emphasizing the protection of rights, rather than the protection of public knowledge. In the eyes of developing nations, this emphasis may reduce their ability to innovate since the majority of these rights belong to developed countries.

The Intellectual Property Watch report also notes that Chile urges WIPO to establish a permanent venue for the analysis and discussion of incentives that promote creative activity, innovation, and technology transfer, within an intellectual property system.

Chile further proposes a study evaluating adequate levels of intellectual property taking into account each nation’s situation, especially its level of development and

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institutional capacity. The study should include consideration of the relationship between intellectual property policies and competition policies, exceptions to and limitations of the intellectual property system where necessary, and the economic and social effect of changes in levels of protection of intellectual property rights.

“[F]ew now developed economies underwent significant technological learning and industrial transformation without the benefit of weak intellectual property protection.”<sup>10</sup>

## ALTERNATIVE APPROACHES

One solution for newly emerging countries to use a less heavily regulated patent system in the development process, and switch to a system more similar to those used in the U.S. or Japan once the economy has matured. For example, non-standard types of patents (e.g., utility models) may be used in place of or in addition to standard patents. Non-standard patents do not necessarily carry with them the same restrictions on use of patented inventions that standard patents do. There may also be differences in the definition of patentable

subject matter, making certain types of inventions not patentable subject matter.<sup>11</sup>

Thus for example, while the Argentine patent law defines an invention as “everything created by man which allows the transformation of matter or energy for exploitation by man, purified and isolated”, substances identical to a natural element are not considered patentable inventions. In Argentina there is also the Plant Breeders’ Rights, a protection system that provides rights different from that of standard patents. Under Argentinean law, seeds and plant varieties, important commercial products in this largely agricultural economy, cannot be protected by patents but only by the Plant Breeders’ Rights.

However, with the popularization of the electronic innovations such as the cell phone, the Internet, and email, local markets in emerging economies seem poised to become more sophisticated domestic consumer bases more quickly than in the past. The more sophisticated consumers will likely propel companies in emerging economic countries toward catering to home markets with more global tastes for higher-level goods and services, simulating innovation on higher economic application

levels. This trend will drive the need for a stronger patent system that provides a means for obtaining needed protection and a system of enforcement.<sup>12</sup>

It is true that lenient patent laws in developing countries have permitted a “learning by doing” method of innovation, usually through an imitating and reverse engineering approach to copying, which has allowed some emerging economies to make their mark on global markets.<sup>13</sup> However, the economic development of some of these emerging economies has risen to a point where there is a recognized need for a reliable patent system for protection of not only imported technologies but of also home-grown innovations often fueled by rising incomes and greater technological sophistication acquired for example from exposure to cell phones, the Internet, and email.

The World Bank has reported: “Interests in encouraging low-cost imitation dominate policy until countries move into a middle-income range with domestic innovation absorptive capabilities.... Least developed countries devote virtually no resources to innovation and have little intellectual property to protect.”<sup>14</sup>

*IP News Alert*, published by Vivien Chan & Co. a Chinese legal services provider, recently reported the latest proposed reforms of China’s Patent Law. Not surprisingly, these reforms reflect China’s rapid emergence from a newly developing economy to an economic powerhouse, developing its own brands of merchandise from homegrown innovations. These amendments to the PRC Patent Law, proposed by China’s State Intellectual Property Office (SIPO) include, (1) expanding the scope of prior art by abolishing the geographical limitation to the state of the art; (2) intro-

ducing tests in determining patent infringement, including test of literal infringement and infringement under the doctrine of equivalents; (3) expressly introducing for the first time the principle of prosecution estoppel, by which a patentee is bound by any written amendments or statements made during prosecution or invalidation procedures; and (4) raising statutory damages for use when no reasonable royalty can be referenced.<sup>15</sup> These changes reflect the recognition that a strong patent system is necessary for a mature economy to compete in a global marketplace.

Thus, as emerging economies such as Brazil, Argentina, India, the People’s Republic of China, and the Republic of Korea move forward as suppliers in a cross-national production system in the long term and with their own technologies, patents and their enforcement in these countries take on greater importance.

Change is slow. To date there has not been major internationalizations of the patent systems of Latin American countries. However, there is an emerging recognition of the need for a system more consistent with the basic concepts of an international IPR regime tailored to the needs of the individual countries. In South America, Brazil, Colombia and Ecuador have joined the Patent Cooperation Treaty (PCT). Argentina and Chile remain non-PCT countries.

As emerging economies mature they, like the nations before them that transitioned from immature to mature economies, will likely strengthen and tend toward a more international IPR system that promotes strong intellectual property rights and enforcement. The more quickly these countries focus on intellectual property

protection, the more quickly transnational companies will open up their wallets and help them grow. **IPT**

## ENDNOTES

1. WIPO Patent Report, Statistics on Worldwide Patent Activity 2006 Edition (WIPO 2006)
2. WIPO 2006 p. 3
3. WIPO 2006 p. 3
4. Eduardo da Motta e Albuquerque, Tendencias e Fronteiras do Deenvolvimento Frontiers and Trends, Instituto de Economia da UFRJ-ESRC/Center for Research on Innovation and Competition, 25-26 September 2002, Rio de Janeiro
5. WIPO 2006 p. 4
6. Reverse engineering – The practice of dismantling a product to determine its parts and then reconstruct it to make a replica. MSN Encarta Dictionary
7. Barma (2005), page 29.
8. Maskus and Reichman, page 311
9. Intellectual Property Watch, December 1, 2006, <http://www.ip-watch.org/weblog/index.php?p=191&res=1024&print=0>
10. Naazneen Barma, (2005) *The Emerging Economies in the Digital Era: Market Places, Market Players, and Market Makers*, University of California, Berkley, Berkley Roundtable on the International Economy, BRIE Working Paper 167 (Barma 2005), page 26, quoting Maskus, Keith E. and Jerome H. Reichman (2004) (Maskus and Reichman (2004)) *The Globalization of the Private Knowledge Goods and the Privatization of Global Public Goods* Journal of International Economic Law 7(2), page 290 Barma (2005) page 26 quoting
11. WIPO (2006) page 5
12. Barma (2005)
13. Barma (2005) p.26
14. World Bank (2001) *Intellectual Property: Balancing Incentives With Competitive Access*, Global Economic Prospects, Washington D.C., The World Bank, pp. 131-132
15. IP News Alert, Vivien Chan & Co., Year 2006 Issue 2.

## Paul Hastings Obtains Summary Judgment Motion for Major Pharmaceutical Company

Paul, Hastings, Janofsky & Walker LLP (Paul Hastings), a leading international law firm, won a summary judgment motion on behalf of Eisai Co. Ltd. regarding the pharmaceutical company’s billion dollar a year ulcer medication, Aciphex.

A federal court in Manhattan rejected claims by generic drug maker Teva Pharmaceuticals that the drug’s patent claims are obvious (Eisai Co. v. Teva Pharmaceuticals USA Inc.).

The Paul Hastings team was led by New York partners Joseph O’Malley and Bruce Wexler.

About Eisai Co., Ltd. Eisai Co., Ltd. is a research-based *human health care* company that discovers, develops and markets products throughout the world. Through a global network of research facilities, manufacturing sites and marketing subsidiaries, Eisai actively participates in all aspects of the worldwide health care system. Eisai employs more than 9,000 people worldwide.

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