

INTELLECTUAL PROPERTY RIGHTS IN CHINA: PATENTS AND ECONOMIC DEVELOPMENT*

Abstract

Although China seeks to improve its image as a legitimate participant in the global Intellectual property ('IP') market and boost its economy, there are still patents and other IP related rights infringement and enforcement issues. This article aimed at discussing how Intellectual Property Rights (IPRs) may improve or decline economic development in China with a particular emphasis on patents. IP rights were and are still playing an important role in China's on-going open-door policy and economic reform. Over the years, China's national economy has witnessed decades of fast economic growth. The study concluded that even though it is reported that China is leading the world in innovation, people are most dissatisfied with the lack of recognition of the gravity of IPRs infringement, the timeliness and extensiveness of damages for infringement as well as the timeliness and convenience of remedies. Therefore the study proposed that China must amend its laws to include penalties that will effectively deter actors from entering the counterfeit market. Second, China must allocate a significant amount of resources to the judicial system to ensure that adjudication is effective and efficient. Third, China must increase enforcement of IP rights.

Key words: *Intellectual property rights, patents, economic development, enforcement issues*

1. Introduction

The question of how IPRs affect the processes of economic development and growth is complex and based on multiple variables.¹ The effectiveness of IPRs in this regard depends considerably on particular circumstances in each country.² While economists are devoting more attention to this issue, evidence to date is fragmented and somewhat contradictory, in part because many of the concepts involved are not readily measured.³ Stronger systems for protecting IP could either enhance or limit economic growth, in theory.⁴ As the global protection regime strengthens due to implementation of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), concluded under auspices of the World Trade Organization (WTO), numerous questions arise about impacts on prospects for economic growth. For many reasons, it is impossible to claim confidently that the new regime will raise growth and improve economic development processes. IP protection was and is still playing an important role in China's on-going open-door policy and economic reform, which began since late 1970s. The past three decades have witnessed dramatic changes in China's IPRs both in terms of national IPRs law system and international treaties membership. Step by step, China has joined almost all important international IPRs treaties.

China joined the WTO in 2001, opening up the country to the benefits of international trade.⁵ China has one of the highest economic growth rates in the world,⁶ a population of 1.3 billion,⁷ and the fastest growing domestic market for goods and services.⁸ It is, as of 2003, one of the largest recipients of

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¹ L.E Maskus, *Intellectual property rights and economic development* (2000) p.1

² *ibid*

³ *ibid*

⁴ *Ibid.* Maskus says evidence is emerging that stronger and more certain IPRS could well increase economic growth and foster beneficial technical change, thereby improving development prospects, if they are structured in a manner that promotes effective and dynamic competition.

⁵ L. S Sorell, *A Comparative Analysis of Selected Aspects of Patent Law in China and the United States*, (2002) p.4

⁶ World economic outlook, <http://www.imf.org/external/pubs/ft/weo/2004/O2/pdf/statappx.pdf> ,accessed on 02/11/2015

⁷ United States Department of State, Background Note: China, <http://www.state.gov/r/pa/ei/bgn/18902.htm> accessed on 10/11/2015

⁸ R. L. Taylor, *Tearing Down the Great Wall: China's Road to WTO Accession*, 41 *IDEA* 151, 158-64 (2001).

foreign direct investment (FDI) in the world.⁹ China's failure to enforce IPRs, however, has the potential to severely limit China's ability to maintain its current rate of economic growth as it reaches higher levels of technological advancement. This is because much of China's economic growth depends on technology transferred through FDI,¹⁰ and foreign investment enterprises or multinational corporations (MNCs) are wary of transferring new and advanced technology to countries, such as China, where IP protection is weak.¹¹ Many notes and articles have been written addressing China's poor IP protection record and proposing organizational or attitudinal changes that should be made in order to improve the Chinese system.¹²

This paper therefore seeks to discuss how IPRs may improve or decline economic development in China with a particular emphasis on patents. The study will first discuss on IPRs and economic development, the role patents play in economic development in China and finally the current practice in China, focusing on patent protection and enforcement.

2. Intellectual Property Rights and Economic Development

Before considering how IPRs influence economic activity and growth, their intended roles in the economy should be considered. Economic analysis of IPRs is utilitarian, asking whether the benefits of any system outweigh its costs, both in static and dynamic terms. The anticipated benefits and costs depend on characteristics of markets, products, and social institutions. Thus, a 'one size fits all' approach to harmonizing international IPRs makes little economic sense.¹³ For many years, economists have tried to provide an explanation as to why some economies grow fast while others do not; in other words, why some countries are rich and others are not. It is generally agreed that knowledge and innovation have played an important role in recent economic growth.¹⁴ The renowned economist Paul Romer suggests that the accumulation of knowledge is the driving force behind economic growth. For countries to promote growth his theory goes, their economic policies should encourage investment in new research and development (R&D) and subsidize programs that develop human capital.

There is a robust dialogue concerning the effect of IPRs on economic development, especially vis-à-vis developing countries.¹⁵ The growing consensus is that strong IP regimes in developing countries could have a long-term beneficial effect on their economic growth.¹⁶ This favorable effect is dependent, however, on other important factors, such as increasing human capital, particularly in technical skills, expanding technical infrastructure, developing efficient managerial techniques, and encouraging international trade and investment from abroad.¹⁷ The beneficial effect of enforcing IPRs will also depend on factors such as the country's gross domestic product (GDP), the share of the GDP spent on R&D, and the openness and transparency of the domestic market.¹⁸ One of the most important forces

⁹ See Department of State

¹⁰ See World economic outlook

¹¹ E. Mansfield, *Intellectual property protection, foreign direct investment, and technology transfer* (1994).

¹² J. Cheng, Note, *China's Copyright System: Rising to the Spirit of TRIPS Requires an Internal Focus and WTO Membership*, 21 FORDHAM INT'L J. L. 1941 (1998); see also Z. Chengsi, Comment, *The TRIPS Agreement and Intellectual Property Protection in China*, (1998); see also Scott J. Palmer, Note, *An Identity Crisis: Regime Legitimacy and the Politics of Intellectual Property Rights in China*, (2001); see also N. Zhang, *Intellectual Property Law Enforcement in China: Trade Issues, Policies and Practices*, (1997).

¹³ See K.E Maskus, *ibid* p.2

¹⁴ K. Idris *Intellectual Property: A power tool for economic growth* (WIPO Publication No. 888.1, second edition 2003) p.4

¹⁵ K. E. Maskus, *Intellectual Property Challenges for Developing Countries: An Economic Perspective*, 2001 U. ILL. L. REV. 457 (2001); see also Robert M. Sherwood, *The TRIPS Agreement: Implications for Developing Countries*, 37 IDEA 491 (1997); see also Evelyn Su, Note, *The Winners and the Losers: The Agreement on Trade-Related Aspects of Intellectual Property Rights and Its Effects on Developing Countries*, 23 Hous. JINT'L L. 169, 185 (2000).

¹⁶ *ibid*

¹⁷ *Ibid*

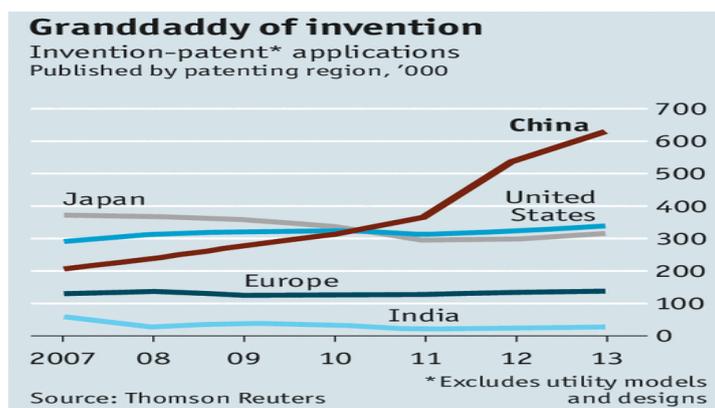
¹⁸ K.E. Maskus, *Intellectual Property Rights and Economic Development*, 32 CASE W. RES. J. INT'L L. 471, 477 (2000).

behind economic development is technology transfers from more developed to less-developed countries. It is within this context that the protection and enforcement of IPRs, along with the other factors, such as expanding the technical infrastructure and maintaining an open and transparent market, become particularly important.

3. Patents Rights and Economic Development in China

Today emerging state's economies like in China turn more and more into knowledge-based economies, where IPRs play an elementary role. Moreover, IP protection in form of patents can increase (as intangible asset) firm's values. With 30 years of gradual economic reforms, China has been opening the economy to international trade and investment, and seen fast economic growth. And there is a nearly nine-fold increase in GDP per capita since 1978. Notably, from 1990s, GDP grew by average about 10% per year.¹⁹ In 2014 the number of patent applications in China was 2,361,000; it remained at similar level as the previous year, in the environment that the overall economic development was stable, around the goal of building China with strong IP competence. China's IP creation made new achievements, the number of invention patent applications experienced a stable growth rate and the composition of domestic patent applications and granted patents was obviously optimized. The enterprises' dominant position in IP creation was further consolidated. The number of invention patents owned by per 10,000 Chinese people reached 4.9.

What has long been predicted has now become a reality: China is leading the world in innovation. So declares a press release promoting a new report by Thomson Reuters, a research firm, called 'China's IQ (Innovation Quotient)'. The report highlights the astonishing increase in patents filed in the country. In 2010 Chinese firms filed roughly the same number of applications for 'invention' patents (the most rigorous sort) as their counterparts in Japan and America. By 2013 the Chinese figure had nearly doubled even as the rates in the other two countries held steady (see chart).²⁰



The explosion of patent filings is not the result of local researchers suddenly coming up with twice as many ingenious inventions: it is a response to a government order. As the report acknowledges, 'the growth in output is driven by the 12th Five-Year Plan and the associated Chinese National Patent Development Strategy'. Bureaucrats have decreed that local firms will apply for 2 million patents by 2016 end. The quality of many of these patents is in doubt. Of the desired 2 million filings, many will be for 'utility' or 'design' patents, which are less substantial than 'invention' patents. Critics suggest that even in the latter category, many Chinese filings fall short of global standards. That is why it is useful to see what percentages of Chinese invention patents are also filed at foreign patent offices, which tend to be more rigorous and transparent. (When a firm goes to the trouble of filing for patents globally,

¹⁹ Huaiwen He *Impact of the Intellectual Property System on Economic Growth* Fact-Finding Surveys and Analysis in the Asia Region Country Report - China

²⁰ This material has been extensively quoted from the print edition unless otherwise stated in the preceding paragraphs: Finance and economics. See <http://www.economist.com/news/finance-and-economics/21636100-are-ambitious-bureaucrats-fomenting-or-feigning-innovation-patent-fiction>, accessed 10/12/2015

it is usually a sign that it believes its invention to be genuinely valuable.) Only about 5% of patents filed by local firms in China last year were also filed abroad, whereas over a third of patents originally filed by local firms in Japan were also filed elsewhere.

Almost all of the growth in China's invention patents over the past three years has come from local firms, not from the Chinese divisions of multinationals. That suggests that the bureaucrats' orders are responsible, rather than the emergence of a local ecosystem of innovation as seen in Silicon Valley. IPRs do matter, but merely churning out patents does little to advance innovation. According to statistics, in 2014, China received 928,000 patent applications, ranking first in the world for four consecutive years; accepted 2,285,400 applications for trademark registration, having been ranking the first for 13 consecutive years. While China's ranking the 29th of the Global Innovation Index Report, which obviously does not match with the above IP achievement of China. In this regard, Shunde believe that the leading number is not China's innovative purposes, innovative quality improvement is the top priority, while to enhance the quality in innovation is the purpose. 'Innovation is not the purpose of innovation but to promote the development of productive forces.' Shunde pointed out improvement of innovation quality need more focus the transformation on innovation achievements. China attaches great importance to innovation and achievements in recent years, greatly enhancing the innovative quality. As said Shunde, in 2015 Global Innovation Index Report, China's performance in innovation quality is eye catching, far more than most developing countries. For the sub- index, the field of personnel training and research, innovation environment, market maturity, the commercial maturity, knowledge and technology innovation output, innovation output, China ranked in the top among the middle and high income countries. The industry experts believe that this is the reflection from 'innovation country' upgrading to 'innovation power' for China.

4. Enforcement of China's Patent Law: Major Problems

Compared to the past, China's recent progress in IP protection has been significant. However, many patent holders not only foreigners but also Chinese are still not satisfied with the current patent protection scenario in China. According to a recent social satisfaction survey report, the overall social satisfaction to China's IP protection had a lowly score of 64.96 points; while the term 'enforcement of IPRs law' received the lowest satisfaction score of 58.45 points. All communities were most dissatisfied with the lack of recognition of the gravity of IPRs infringement, the timeliness and extensiveness of damages for infringement as well as the timeliness and convenience of remedies.²¹ Compared to other countries China's IPRs enforcement is often ranked behind even developing countries. According to a World Economic Forum's (WEF) recently released report, China ranked 53 among 148 nations and regions on the index of 'IP protection'.²² The *Xinhua* report on 2014 patents concluded with an observation that it is the government's policy to boost innovation through improved protection of IPRs. Of course, not everything in China is rosy when it comes to IPRs protection, but the policy settings and legislative arrangements for this are now quite sound. It is weak enforcement, both in investigation and judicial process, where China lets itself down.

There are other areas of policy and practice that need attention to foster innovation. Some basic business practices that are common in the United States, Japan, and Europe may not be so familiar in China. These practices include patent acquisition and patent commercialization.²³ A 2014 Chinese study from researchers in Wuhan on the country's high tech industries actually found that these firms may be putting too much emphasis on patent protection, and not enough on the other patent practices. The authors concluded that an emphasis on patent protection 'conducted by companies themselves is adverse to technology diffusion and transfer' and 'will impede the absorption and integration of external technologies into high-tech enterprises.'

Recent News on China's patents, <http://english.sipo.gov.cn/news/ChinaIPNews/> accessed on 02/01/16

²¹ Wei Zhang, 2013 Annual survey of intellectual property protection of social satisfaction, *Legal Daily*, 25 April 2014

²² The Global competitiveness report 2013-2014, world economic forum, http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-2014.pdf, accessed 05/02/2016

²³ See <http://thediplomat.com/2015/03/the-problem-with-chinas-patents/> accessed on 15/02/2016

4.1. Notable Chinese IPRs case lessons

A few IPRs enforcement cases in China have been widely reported and illustrate lessons for foreign companies experiencing IPRs enforcement issues in China. Below is an example of a case illustrating infringement and enforcement.

Patents

In 2006, the Chinese subsidiary of the French company Schneider Electric SA was sued by the Chinese company Chint Group Corp. for patent infringement in the Intermediate Court located in Chint's home city. Chint claimed that Schneider Electric had infringed on Chint's utility model patent relating to circuit breakers. In its defense, Schneider filed a patent invalidation petition with SIPO. In April 2007, SIPO affirmed the validity of the Chint utility model patent. The Intermediate Court moved forward with the infringement case and insisted that Schneider produce certain tax information to determine the company's sales and profits on the alleged infringing products. The infringement trial was held, and in September 2007 the court found Schneider was infringing China's patent. The court issued an injunction against Schneider and awarded \$49.2 million in damages to Chint. While on appeal, Schneider and Chint settled. It is perhaps significant that this infringement suit was brought in Chint's home city. Because local protectionism is a concern in China (whether in a local court or agency office), foreign companies should consider preemptively bringing a suit in whatever may be considered their home court in China. For example, Peoples Republic of China law provides that an infringement lawsuit can be brought in the place of infringement—wherever the infringing product is sold—not just the place of defendant's domicile. PRC law permits a party accused of infringement to bring a declaratory suit in its home court seeking a judgment of non-infringement. A foreign company accused of infringement could also file an invalidity challenge with SIPO as a way of warding off a patent infringement suit.

4.2. Some related issues of the patent law

There are difficulties in obtaining injunctions, both preliminary and permanent, under Chinese law. Injunctions are an essential component of an effective patent enforcement regime. Local patent offices lack the authority to award monetary damages and can only impose injunctions; they also lack the authority to impose sanctions for failure to comply with the injunctions, however, necessitating application to a court for enforcement of the administrative order.

5. Conclusion and Recommendations

For countries to promote growth, their economic policies should encourage investment in new R&D and subsidize programs that develop human capital. IP protection in form of patents can increase (as intangible asset) firm's values. Economic theory demonstrates that IPRs could play either a positive or negative role in fostering growth and development. The limited evidence available suggests that the relationship is positive but dependent on other factors that help promote benefits from IP protection. Even though it is reported that China is leading the world in innovation. People are most dissatisfied with the lack of recognition of the gravity of IPRs infringement, the timeliness and extensiveness of damages for infringement as well as the timeliness and convenience of remedies.

In the light of the above, the author proposes that to survive in the current international competitive situation, Chinese high-tech enterprises need to enhance the acquisition of patents developed by others, as well pay more attention to wider commercialization of patents. According to the Report on Patent enforcement in China, Prepared by the U.S. Patent and Trademark Office, there are some of the notable recommendations from the commenters, which the author of this article also adhere to. In summary of this article the following are proposed. A Chinese court must formally 'accept' a case before actual litigation will commence; however, there are no clear guidelines outlining what information and evidence a complainant should present to the court in order for the court to accept the case. This creates confusion on the part of the complainant and inhibits enforcement efforts. Courts may also have to alert parties of a decision to accept or reject a case orally instead of in writing. Such decisions are not appealable, often leaving parties with no explanation as to why a case was rejected and no avenue for reconsideration. It is also strongly proposed that China clearly articulate, in writing, what information and evidence must be submitted in order for a court to accept a patent infringement case, and

institutionalize a requirement that decisions to accept or reject a case be in writing, include articulated reasoning explaining a decision to reject a case, and be appealable to the next highest level court in that jurisdiction.

Chinese courts do not consistently provide case schedules that delineate when parties must present evidence and arguments to the opposing side. This has resulted in confusion and parties being ‘caught by surprise’ regarding an upcoming or lapsed deadline that was not clearly articulated by the court. It is therefore proposed that courts provide to all parties a clear case schedule that identifies when parties must present evidence and arguments, which would allow all parties to efficiently and effectively allocate their resources and develop a litigation strategy, a benefit to all parties involved in the case. It is equally proposed that China provide an avenue to prevent infringing pharmaceutical products from entering the market; the lack of ability to obtain injunctions prior to market entry significantly hinders effective enforcement opportunities. Lack of clarity as to when injunctive relief may not be available, for example when a court may deem a patented invention was ‘essential’ to a local economy, further decreases the ability of rights holders to understand and effectively use China’s patent enforcement mechanisms.

It is suggested that Chinese law impose sanctions, including criminal liability, on parties that fail to comply with court orders. Where such sanctions do exist, it is proposed that fines be increased and that significant fines and jail time be imposed, so as to serve as a deterrent. It is further proposed that Chinese law ensure that a court order attach to, and run with, the losing company and/or its executives, allowing for enforcement against entities that receive assets transferred to related entities; this would help avoid losing parties avoiding or delaying enforcement of court orders by relocating, changing names, and/or transferring assets. It is proposed that local patent office personnel be provided enforcement power and be otherwise provided with the necessary authority and training to handle complex patent infringement allegations.