

THE ANALYSIS OF INTELLECTUAL PROPERTY RIGHTS IN CHINA

Edwin Agung Wibowo
(Dosen Tetap Prodi Manajemen UNRIKA Batam)

Abstract

This paper has used a comparative study for the key findings of the experimental studies. The several aspects such as the legal framework, economic, culture and macro environment are subjected to be compared to measure the main gap as the issues between theoretical legal framework and IPR administrative procedures in China. In addition, this paper includes several sources of experimental data from library, journals and Internet in order to obtain the accurate information for the comparative study.

Limitation of Study

The scope of this paper is only comparing several assumption of costs and benefits of intellectual property rights (IPR) as literature review. Moreover, its cover brief current situation IPR particularly a number of laws in China, and discuss two case studies regarding property right issues in China. The outcome from this paper can be considered as measurement of any personal, companies or countries in order to performing joint venture, foreign direct investment (FDI), licensing in China and providing several possible solution regarding IPR issues in China.

Introduction

The Definition of Intellectual Property Rights

According to WTO, Intellectual property rights (IPR) are the right granted by government and given to the particular person who had idea or creation of their own. Similarly with Chatterjee et al (2006), believe that IPR are legal entitlements given by authorities to the original creator that provide rights to use their intellectual property for a certain period.

According to WTO, the scope in Intellectual property right can be divided into two main parts:

1. Copyright and right related to copyright

The rights are regulate author of literary and artistic works such as books and other writings, films, sculpture, computer programs and painting are protected by copyright, for a minimum period of 50 years after the death of the author. Copyright also regulate to performers such as singers, musicians, actors, producers and broadcasting organization. This reason of copyright regulation is to promote and reward for innovator or creative work.

2. Industrial Property

The industrial properties are customarily divided into two main parts:

- First part is protection to distinctive sign, in particular trademarks (such as distinguish the goods or services of one company with the other company) and geographical indications (which recognize a good as originating where a given characteristic of the goods is essentially attributable to its geographical origin). The reasons of this protection are to

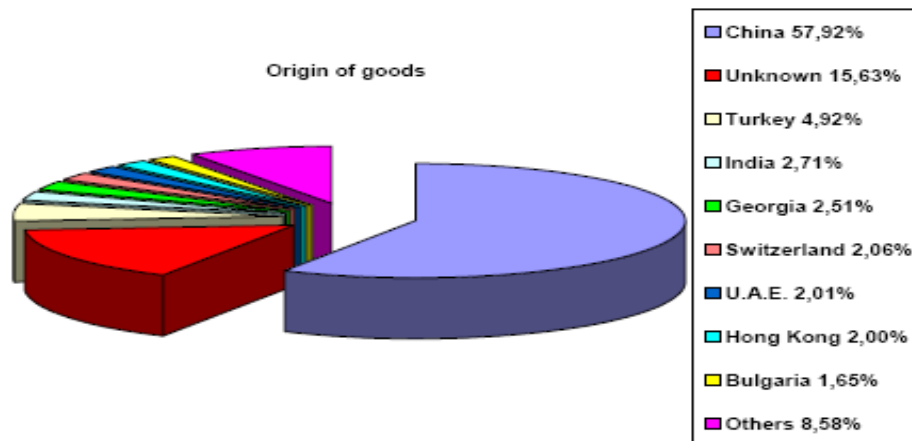
encourage and guarantee fair competition and to protect consumers. Moreover, the regulations also to inform customer regarding make choices among variety of goods and services. This protection may last for indefinite time.

- Second, another type of protection is regulate invention (which protected by patents), industrial designs and trade secrets. Main purpose of this regulation is to encourage creation of technology, design and innovation. Moreover, it's also having social objective which providing protection for investment of new technology; hence provide incentive to support research and development. Intellectual property rights also encourage the technology transfer of technology thorough FDI, joint venture and licensing. This protection usually last depend on the agreement, (for example, 20 year for patents).

Even the Intellectual property rights has generate benefits, however the protection that given to the creator have limitations and exceptions. The IPR is considering the cost and benefit for the holders and user of particular products and services.

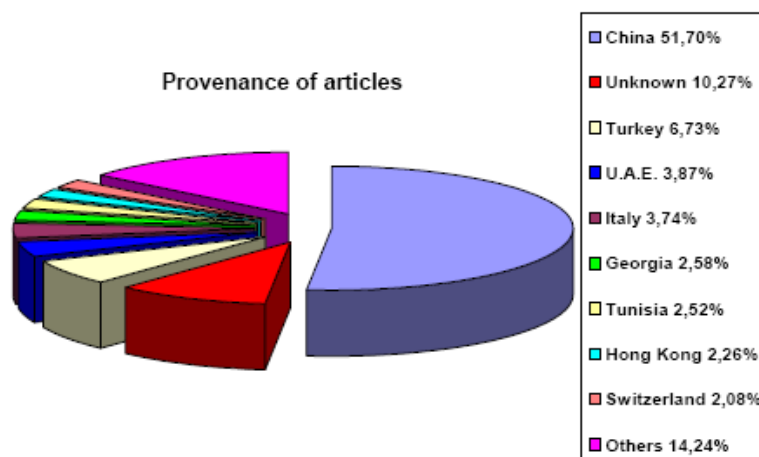
Intellectual Property Rights in China

According to EU, china is responsible for almost 60% of all counterfeit goods that had successfully been seized.



Custom officers trace the origin of the goods during he checks on goods when detaining or suspending the release of the goods. However, there are also cases where the export country is hidden by the counterfeiters by using free zones and/or using several transport routes. Due this particular reason, 15% of the articles could not be established.

According to provenance, the figures are similar:



For some product sectors, other countries were found to be the principle source of counterfeit articles. In the category “Foodstuff and beverages”, Turkey was the main source followed by China; for the category “Cosmetics and personal care products”, Georgia followed by Turkey and China were the main sources and for the category “Medicines”, Switzerland followed by India and the United Arab Emirates were the main sources. For a complete overview for all categories see Annex 3.

Literature Review

The relationship between IPR and development of economic

2007										
Breakdown of number of articles seized expressed as % by provenance and by product type										
1. Foodstuff, beverages	45,92%	37,35%	5,06%	3,10%	1,50%	1,11%	1,04%	0,97%	3,95%	
	Turkey	China	Italy	Georgia	Belize	Bulgaria	USA	Vietnam	Others	
2. Cosmetics, personal care products	32,11%	28,68%	15,86%	5,67%	4,34%	3,55%	2,27%	2,01%	5,50%	
	Georgia	Turkey	China	Singapore	Korea	Unknown	UAE ²	Algeria	Others	
3a) sportswear	55,62%	19,44%	9,83%	4,60%	3,21%	0,97%	0,95%	0,71%	4,68%	
	China	Turkey	Unknown	Bulgaria	Algeria	Romania	Poland	Thailand	Others	
3b) other clothing (ready to wear)	62,58%	10,32%	4,63%	4,51%	2,66%	2,40%	1,79%	1,77%	9,33%	
	China	Turkey	Unknown	Vietnam	Italia	Syria	Bangladesh	UAE	Others	
3c) clothing accessories	57,16%	17,54%	11,65%	4,66%	2,55%	1,41%	1,02%	0,65%	3,38%	
	China	Italia	Turkey	Unknown	Bulgaria	Hungary	Algeria	Tunisia	Others	
3d) shoes	79,67%	7,08%	2,35%	1,81%	1,24%	1,07%	1,00%	0,87%	4,91%	
	China	Algeria	Italia	Unknown	Turkey	Russia	Spain	Malaysia	Others	
4. Electrical equipment	35,21%	30,73%	12,58%	10,06%	2,57%	2,40%	1,59%	1,17%	3,69%	
	Unknown	China	Algeria	Hong Kong	Italia	UAE	Liechtenstein	Turkey	Others	
5. Computer equipment	47,61%	14,15%	11,86%	5,41%	4,41%	3,57%	3,06%	1,98%	7,94%	
	China	Italia	Hong Kong	San Marino	USA	Algeria	Unknown	Japan	Others	
6. CD, DVD, cassettes	75,07%	6,53%	3,31%	3,21%	2,65%	2,13%	1,72%	1,26%	4,12%	
	China	Unknown	Poland	Hong Kong	UAE	Italia	Syria	Ukraine	Others	
7. Jewellery	52,21%	36,15%	5,70%	1,90%	1,04%	0,63%	0,60%	0,28%	1,50%	
	China	Italia	Hong Kong	Unknown	Netherlands	Japan	Thailand	Liechtenstein	Others	
8. Toys, games	41,59%	36,19%	7,35%	4,73%	2,39%	1,50%	0,92%	0,61%	2,36%	
	China	Tunisia	Italia	Hong Kong	USA	Unknown	Croatia	Canada	Others	
9. Other	71,14%	8,79%	6,26%	3,28%	2,35%	2,12%	1,74%	0,78%	3,54%	
	China	Hong Kong	Unknown	Italia	Tunisia	Ukraine	Turkey	Pakistan	Others	
10. Cigarettes	55,05%	18,01%	7,30%	4,78%	2,81%	2,41%	1,57%	1,27%	6,80%	
	China	Unknown	UAE	Bulgaria	Turkey	Belgium	Greece	Poland	Others	
11. Medicines	39,21%	34,60%	14,70%	3,88%	3,28%	2,66%	0,52%	0,30%	0,84%	
	Switzerland	India	UAE	China	Hong Kong	Unknown	Mauritius	USA	Others	

² UAE – United Arab Emirates

The literature review are discussing the relationship between IPR and development of economic especially the advantage and disadvantage of introducing or developing IPR in certain countries.

Increasing IPR has potential disadvantage to reduce revenues in industries that rely on imitating product of developed nations and the innovator may increase the price of protected goods. On the other side,

strong level of IPR has potential advantages include increase rate of FDI, foreign technology transfer, local innovation, and research and development (R&D). This situation has raised question, are whether the cost and benefit are in fact occurs or not? What the overall net benefit of strong IPR protection regarding to economic development and consumer welfare.

According to Chin and Grossman (1998), the countries that less innovates (Eastern countries) are preferred using low level of IPR protection, since it could gain benefit to the innovator's countries (Western countries). However, in short term, this situation may introduce unbalance incentive among the countries. Western countries may give privilege to Eastern to increase the IPR in long term. For example increasing IPR in the East countries may encourage innovation in the East; hence contribute to the economic growth.

Meanwhile, some experts believe that the East was only encouraged to increase IPR if the innovation demand is different from the West. For example, the East is demand innovation of malaria drugs, while the West prefers innovation of cancer drugs. For this reason, if the East increases its IPR protection, the West becomes favorable to focus on the East's needs (Diwan and Rodrik, 1991). Moreover, Diwan and Rodrik conclude two main aspects in determining the level of IPR protection for the West and East. First is welfare could be increased if the West had greater IPR protection then the East. Second, as the market size rose in the East, the opportunity for innovation was increased, and the West will reduce the IPR protection to gain the market.

On the other hand, Helpman (1993) found factor influence welfare. Strong IPR in the East is favorable situation for the West, which East worse off. Another factor is production resources moved from the low-wage East to the high-wage West, which made both regions worse off.

Meanwhile, Lai (1998) discussed the effect of IPR protection on the rate of product innovation for long-term period, assuming that technology transfer took place through FDI (foreign direct investment) or imitation product. Lai assume that Western firms doing FDI in the East, and the East will start imitated when Western firms transfer its production to East. Lai found that the level IPR protection in the East depended on the technology transfer methods, which are FDI or imitation. If using imitation as technology transfer method, stronger IPR protection may decrease the rate of innovation, rate of production transfer and wages in the East compare to the West. The effects of this scenario: first, it decreased the rate of imitation; hence the West might become monopoly, which favorable for the West. Second, it may increase the demand of Western labor and Western wages, which raised the cost of innovation and decreasing the return to innovations.

On the other hand, using FDI as the method of technology transfer had the contrary effect. For the Western, using FDI could lowering its wages by using Eastern labour, meanwhile its might have chance to lose its market to imitator in the East. Therefore, stronger IPR protection in the East resulting increase rate of innovation. Strong IPR protection may increase the monopolies' live, and since the labor from the East, its increase the return to innovation. Lai also believes that as long as the rate of FDI is sufficiently big, the latter effect of imitation and FDI are even.

Meanwhile, the other experts, Grossman and Lai (2004) discuss the effect of harmonization of IPR between the West and the East. The research found that strong IPR level likely resulting efficient in countries with larger market for innovative products and countries with strong human resource. As the

result, the experts argued that each country should have its own policy rather than following a global harmonized policy. As conclusion, harmonized IPR are likely to benefit the innovator countries (the West), on contrary had potential to disadvantage for less developed countries (the East).

The Intellectual Property in China

China is viewed as a very huge market for multinational firms. But as the economy grows they face some problems in the IPR system. However many of these problems arise by companies about the intellectual property right in China are caused by the mistakes that those firms contribute themselves. One common problem is the failure to register their IP. Based on the research conducted by Ian Harvey and Jennifer Morgan, there are several myths that exist regarding the IPR in China

1. Chinese IP laws are unsophisticated.

Since the mid 1980s the IP in China have been referred to the German Ministry of Justice. In 2001, they align their IP law with WTO requirements. And today, international IP lawyers say that Chinese IP laws are in the top rank in the world. The following table will give an idea about the IP law in China from the early 80s to 2001.

2. The IP rights in China are of poor quality

Year signed	Treaty
1980	Convention establishing the World Intellectual Property Organisation
1985	Paris convention for the protection of industrial property
1989	Treaty on intellectual property in respect of integrated circuits
1989	Madrid agreement concerning the international registration of marks
1992	Berne convention for the protection of literary and artistic works
1992	Universal copyright convention
1993	Geneva convention for the protection of producers of phonograms against unauthorized duplication of their phonograms
1994	Budapest treaty on the international recognition of the deposit of microorganisms for the purposes of patent procedure
2001	Trade-Related Aspects of Intellectual Property Rights (TRIPS)

Normally the patents issued to foreigners have a high quality since they are usually examined by the Chinese Patent Office's (CPO) best examiners. The CPO has a major requirement and training programme, with substantial assistance from the European Patent Office. However, the well trained and experienced patent examiners are low in number.

3. IP laws and poor enforcement favour domestic interests.

In the developed areas of China, the court system is free of bias in the law or judicial system. The cost of IP litigation is low by international standards, the IP Tribunal of the Supreme Court is of high quality and is making sophisticated judgements, and moreover the time for the entire litigation is very fast by international standards. European Union has aid in improving the quality of the law by providing training and experience to these judges. In areas where the economy are less developed there can be problems of corruption and local bias- China's government is aware of these problems and they plan on addressing these problems through a variety of

measures.

4. Foreign Parties cannot access the enforcement system.

In 2004, the number of patent litigation in China is higher than any other countries, including USA. Most of them (90%) are those were found in favor of the foreign patent holder, compared with an estimate of 30-40% in USA. Many foreign companies lack IP representation in China, which means that proposed actions have to be sent to head office for approval. As a result, injured companies fail to comply with the set timeframe.

The current IPR environment in China

In 1978, China had reformed the policies for the free market economy. Since then, China has been the biggest source of manufacturing products to the world. However, a lack of Intellectual Property laws is the key factor to challenge most companies for doing business in China. The counterfeit products such as watches, leather goods, medicine, were mostly from the origin of manufacturing in China. Last year, China was identified as the top challenge for multinational companies to protect themselves from Intellectual Property thefts (Tang, 2008). In addition, United States illustrated that most of the counterfeit products found at the United States border were from China (Embassy of United States, 2009).

After China has been listed in World Trade Organization (WTO), the government has reformed and amended its Intellectual Property Rights (IPR) laws and regulations to follow the agreement with WTO on Trade-Related Aspects of Intellectual Property Rights (TRIPS). As being WTO member, China has committed to implement Intellectual Property laws consistently with TRIPS. Consequently, China is predicted to have a modern structure of Intellectual Property laws same as developed economies (Maskus, 2002).

China's Intellectual Property laws

The key framework of Intellectual Property laws in China are the patent laws, the trademarks laws, the copyright laws and the Anti-unfair competition laws follows below.

1. The Patent law

China composed the first Patent law in 1984. Thus, the law has been amended in 1992 and 2000 in order to strengthen its enforcement and wider the protection coverage. According to TRIPS, the latest Patent law has been amended and wider the period of the patent protection for 20 years from the date of a patent application. The further amendment also added more patentable products which are foods, liquid drinks, and flavorings, chemical and pharmaceutical products. The invention patents are composed under the rule of a first-to-file system. A first-to-file system is defined as the protection will be granted to patents which are the first patent application regardless the original founders (The United States Department of Commerce International Trade Administration, 2003). This system is not the same as the United States, that uses the "first-to-invent" system. However, the first-to-file system is mostly use in several countries for example the European Union. Additionally, the State Intellectual Property Office (SIPO) is responsible for administrative law enforcement.

2. The trademark law

The trademark law was weak at the early stage of capitalism in 1982 (Deacons, 2005). Then, the government had amended the trademark regulation of framework for more effective in protecting Intellectual Property of entrepreneurs. The latest trademark law is composed to include the registration for certification marks, collective marks and three-dimensional symbols follow the requirement of TRIPS agreement. Similarly, the trademark law is based on a 'first-to-file' system. A filer is required to show no evidence of founder or original ownership. However, the China Trademark office has cancelled all the unfairly registrations by local Chinese companies in order to eliminate criticisms and conflicts. The China Trademark office takes the full responsibility to administer all applications of the registration for marks and logos. Furthermore, the government has extended the scope of law protection to internet domain names, internet copyright, geographical landmarks and other new technologies as to support the growing businesses in the today's world (Tang, 2008).

3. The Copyright law

The copyright law was firstly adapted in 1990 and the latest amendment of regulation rules was implemented in 2002. There is no requirement for a company to register its copyright for protection because the copyright law will come to force to protect persons from countries where they have the trading agreement with China for copyright international conventions or in terms of bilateral agreements. The National Copyright Administration (NCA) is responsible for any registrations from any copyright owners who prefer to register their copyrights as for an evidence of ownership in case of enforcement actions.

4. The Anti-unfair competition law

The government has composed the Anti-unfair competition law to protect for unregistered packaging, trademarks, trade dress and secrets (Embassy of United States, 2009). The Fair Trade Bureau under the State Administration for Industry and Commerce (SAIC) is established to interpret and administer the Anti-unfair competition law. The TRIPS agreement is required the government of China to have strong enforcement of the Anti-unfair competition law for protecting pharmaceutical and chemical products from disclosure or unfair commercial use.

China's IPR enforcement system

The IPR enforcement system of China is presently diffused to govern the Intellectual Property (IP) laws and regulations. The State Intellectual Property Office (SIPO) is established in 1998 for the purpose of integrating IP enforcement efforts of the patent, trademark and copyright administrators to be managed by one authority. However, this concept has not yet been adapted for practice due to the complication of several administrators.

There are two systems to track an illegal action as IP theft (The United States Department of Commerce International Trade Administration, 2003). Firstly, the administrative track is providing for an IP rights

holder to put a complaint at the local administrative offices. Secondly, the judicial track is another system for an IP rights holder requiring for enforcement actions through the court system.

Nevertheless, IPR enforcement system is still weak for implementation. Maskus (2002) mentioned about the main factors that have been threaten the enforcement of IP laws. The low salaries and weak civil penalties are measured as the key factors causing the local administrative officers less attention to come to force on illegal actions. The complicate process of administrative system is another problem that consequently delays the court procedures.

Discussion

The Piracy in China regions (Hong Kong, Shanghai, Wuhan, and Sig)

In comparison to Hong Kong, piracy is considered to be even more serious in Mainland China, although it is difficult to find accurate statistics to measure the magnitude of the problem. Thirty-eight percent of all the counterfeit goods seized by US Customs in 2000 were coming from Mainland China, and foreign multinationals estimate they lose at least twenty percent of the value of their potential sales in Mainland China to counterfeits (Porteous, 2001). Even though the Chinese government has promised to protect intellectual property rights, the piracy problem is still extremely serious, especially for software and entertainment companies. The Economist (2003) has suggested that Mainland China is the international capital of counterfeiting.

Based on the table above we can see that Almost 80% think that it is ethical to purchase piracy goods. And 75% thinks that the purchase is actually legal. This low awareness in the legal

Table 2: Perceptions of pirated VCDs

	Hong Kong	Shanghai	Wuhan	Sig
<i>Component 1</i>				
The purchase is ethical	4.53	4.09	3.66	.000*
The purchase is legal	4.99	4.39	3.59	.000*
VCD quality is reasonable	3.64	4.07	3.78	.013*
After-sales service (e.g. liberal return policy) is reasonable	4.98	4.80	4.66	.241
They are supported by VCD/DVD machines	3.72	3.79	4.56	.000*
VCD can be viewed many times	2.88	3.02	3.72	.000*
<i>Component 2</i>				
VCD supply is adequate	2.80	2.14	2.36	.000*
VCD variety is adequate	2.84	2.01	2.31	.000*
They are popular with my friends	2.76	2.32	2.73	.001*
VCD is published quickly	2.17	2.29	2.64	.004*
VCD price is reasonable	2.22	1.86	1.85	.001*

* sig at .001

1 = strongly agree and 7 = strongly disagree

consequences could be driven by several factors.

The factors of IPR in China

Developing and enforcing copyright protection in China is strongly affected by economic, cultural, political, social, and external influences. The special factors to be discussed in this section are, firstly, the external and, second, the cultural aspects.

The External Factors

An external factor – international pressure play in an important way on developing and enforcing copyright protection in China. The Chinese government has been pressured by the international community to improve IPR protection, most notably by the UK, the United States (US) and Japan.

1. The US – Chinese Relations

The US industry associations were the catalyst for recent campaigns; their lobbying of Congress has led to IPR protection gaining an important place on the agenda of all trade negotiations in China.

In January 1992, a Memorandum of Understanding was signed between the US and China. China pledged to strengthen its principal IP laws including copyright laws, and improvements included the agreement to accede to the Berne Convention and to treat computer software as protected literary works.

Governments, chiefly the US government, believe that stronger protection of their copyrights in China, and the subsequent decrease in copyright infringement, would serve the needs of their companies trying to break into the Chinese market. China has recognized the need to meet some international demands and has responded by developing a comprehensive copyright law system to enforce it. As pointed out by Lazar, it should be noted that while the modern Chinese copyright system meets China's needs, it does not completely satisfy the others, i.e. the eminent US business concerns. Nevertheless, the copyright system in China should be recognized by the US and other governments as a legitimate legal system that reflects the cultural and social background of China while at the same time meeting the basic need of foreign businesses.

2. Japanese Experiences

The developments of culture and the changes of custom in China and Japan have been linked in countless ways. In context of copyright, the first Chinese copyright law - the Authors' Rights in the Great Qing Empire – was essentially modeled after the Japanese law.

3. International Organisations and regulations

The World Intellectual Property Organization (WIPO) was founded in 1970. The Berne Convention is one of the earliest copyright treaties. It marks the copyright entered in the international arena with the Berne Convention for the Protection of Literary and Artistic Works created in 1886. The aim of this Convention was to help nationals of its member States obtain international protection of their right to control, and receive payment for, the use of their creative works such as: novels, plays, songs, sonatas, drawings, sculpture, etc. Besides the statutory Article of fair dealing, Berne Convention recognizes the need to maintain a balance between the rights of authors and the larger public interest, particularly education, research and access to information.

The Cultural Aspects

Cultural difference is another significant factor which influences the development of copyright in China. Traditional Chinese culture believes that individuals are obliged to share their creations and developments with their community. The individual pursuit of economic gain was seen as a threat to the state and was actively discouraged.

Accordingly, new ideas and technologies are considered public goods, and cultural esteem rather than material gain is the incentive for creativity.

The copying of works of almost any kind has been regarded as honorable and necessary in traditional Chinese culture. The soul of the traditional Chinese culture – Confucianism – ***emphasizes learning by copying applied to all aspects of life in China***. It was closely applied to the essential virtues of filial piety and obedience to authority, of not presuming to question the opinions or decisions of one's elders or superiors. It was a powerful influence in all Chinese life, included the judges and magistrates in the traditional legal system before the adoption of 'the reform and opening-up policy' in 1979.

The traditional legal system of China was a mechanism for retaining imperial control over the populace. On one side, it was a political tool to control society which is strikingly different from the Western legal system; on the other side, it was disgusted by the common people. The great Confucian philosopher Lao-tzu remarked that the more laws and ordinances are promulgated, the more thieves and robbers there will be. What the public respected was ren zhi – rule of man - but not fa zhi- rule of law - with the emperor or governor and the officials possessing the absolute right to rule the people, who in turn had an absolute duty to obey.

For centuries, the Chinese public treated lawsuits as bad-luck, even evil. From 1949 until the end of the 1970s, Mao was the major influence in Chinese society. Early socialism as practiced under Mao's leadership viewed the law as a tool for oppression of a class of people. Under Mao's indication, the Chinese intelligentsia, which was named as 'chou lao jiu', was repressed not only by Chinese government but also the public.

For the last five decades, people in China have been fed, educated, and supported by a system which does its best to enforce equality among all its members; no one, including intellectuals, is supposed to profit from the work. Consequently, copyright legislation and enforcement have been slow in coming into China.

Copyright enforcement in China is influenced by several factors such as economic, cultural, social, and other external influences. Two special factors that we will bring up are the external and secondly cultural aspects.

Case study

The case study is about the intellectual property rights problem in China between Chengpu and Gillette in July 2006 (China Intellectual Property Report, 2006).

Gillette is a multinational company which has a global market in around the world. Gillette has lots of product line, such as fusion gamer, hair care, shave care, fusion phenom and body wash. Gillette has a concentration product in shave care products, for instance electric shaver, general shaver, and after shave products. Chengpu is one of the electronic companies in Tainan, Taiwan which has concentration

products in car stereo parts and audio visual parts manufacturing. Chengpu Electronic has established in 1980 in China.

Gillette found a Chengpu's electric shaver product which similar design with Gillette's electric shaver in China in 2005. Gillette claimed RMB 500,000 to Chengpu in the court because of the infringement of intellectual property rights. Gillette required Chengpu to stop production for electric shaver which has same design with Gillette's electric shaver, and do more research of the factory. Gillette and Chengpu spent 1,5 years in the court to debate about their intellectual property rights.

In 2005, Wenzhou Intermediate People's Court Mingshanting decided that Chengpu must stop production the electric shaver which has same design with Gillette's, and also pay reimbursement to Gillette and cost in the court (RMB 180,000, RMB 8210, respectively). Moreover, Gillette paid RMB 3000 for the legal cost in the court.

The costs and benefits of strengthening IPR in China

Now, we will try to identify the possible cost and benefits to China of strengthening their intellectual property regime. Through necessarily speculative this discussion is informed by a growing literature on the relationship between IPRs and economic development.

Innovation and creative works may benefit China by providing more options on the products available, improving the quality and attributes of existing products, and enriching culture.

Since market participants will have little incentive to compensate creators once the innovation becomes public knowledge, property right in intellectual innovations should be established and their enforcement must be facilitated by the rule of law. This way, the access to the market will be small and IPR owners can charge a monopoly price to compensate the risks and cost associated with the creative process. Yet, by allowing IPR owners to set monopoly prices for the duration of the intellectual property right, ex post efficiency losses result as the IPR restricts availability and increases cost of using existing creative products. Thus trade-off exists. If the IPR protection is too weak, it discourages creative activity and dampens variety of products available. While if the IPR is too strong, it would create an excessive market power.

To see whether China will gain from adapting a stronger IPRs and enforcing foreign and domestic intellectual property rights we need to consider several effects.

1. Rent transfer effect

As a net importer of technology, China has traditionally maintained low IPR protection to encourage low-cost imitation. The technology to copy copyrighted movies, music, and computer software are readily available. The large gap between the market price of the "legitimate" product and the cost of production of "close" imitation has triggered people to infringe on IPR. The ability to imitate technology in labour-intensive industries enables many Chinese firms to compete effectively in global markets. The percentage of GDP as trade (export plus import) has increased from 9.8% in 1978 to 34.42% in 1999 (China Statistical Yearbook, 1999, pp.55, 557-78).

Strengthening IPR protection will increase China's cost of technology acquisition as local procedures are required to pay royalties to Western IPR owners or to exit the market. This induces

increases in product prices and a transfer of rents and royalties from Chinese consumers and producers to foreign IPR owners (Chin and Grossman 1988, Maskkus 1990, Deardorff 1990, Helpman 1993).

2. Innovation effect

Strengthening IPR could promote innovation and R&D in China. Wu (1995) finds that China's government has undertaken extensive reform of its state R&D institutions since 1978 and has encouraged the development of R&D in the new private industrial sector. Nevertheless, in 1994 China expanded just 0.5% of its GNP on R&D, below the average of 2.92% for developing country (Wu, 1995). China's R&D as a percentage of GNP increased to 0.71% by 1998, an increase which may be partially due stronger IPR institutions as well as the changing structure of the economy (China Statistical Yearbook, 1999, pp.55, 675).

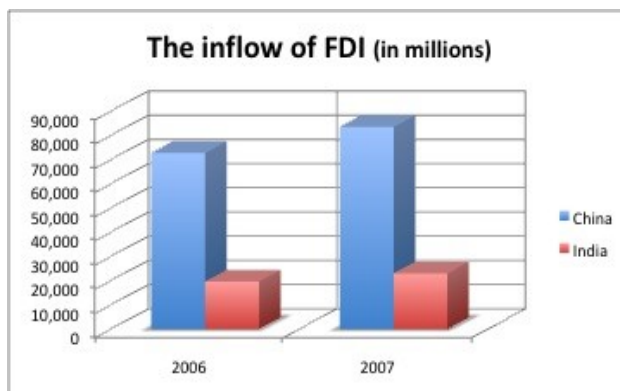
Since weak IPR may encourage imitative R&D in China, thereby building up its overall R&D capacity, it also discourages domestic innovation. Considering the sizable market in China and their different taste compared with other innovative nations, strengthening IPR protection may induce greater domestic and local innovation that favours local needs (Diwan and Rodtik, and Evenson and Westphal 1997).

Two possible reasons that why Chinese law inadequately protect the works of its own inventors and artists are

- The enforcement copyrights and patents poses a simple trade-off is the environment that promotes domestic inventive activity at the expense of higher consumer prices and larger transfer of copyright royalties to foreigners.
- The second reason is IPR enforcement is likely will be less "strict" since it generates an additional cost: reduced growth of the stock of knowledge and human capital. To illustrate this, take collage students as an example, when IPR is enforced the price of the textbook will increase and students will have to be the one who bears it. This could result in a decrease in human resource formation.

3. Direct foreign investment and technology transfer effect

A world investment report by UNCTAD (2007) stated that in South, East and South-East Asia region, China and Hong Kong together is the largest recipient of FDI inflows which attracted \$ 43 billion followed by Singapore and India respectively with \$ 24 billion and \$ 17 billion.



Source : United Nations Conference on Trade and Development, 2008

According to the research conducted by Serwood in 1991, foreign firms would be more likely to share technological information with Chinese affiliates and licensees when local competitors are legally restrained from infringing on the domestic firm's intellectual property. When a firm seeks to protect its reputation for quality, however, it may prefer FDI over either exports or transferring technology to a local vendor when intellectual property protection is low (Horstmann and Markusen 1987).

The relation between FDI and IPR will be referred to the research conducted by Markus and Konan (1994). They tested the relationship using a cross sectional sample of 44 countries and found only weak evidence of positive relationship. Lee and Mansfield (1996) conducted a similar study based on survey data from nearly 100 US firms regarding their perceptions of a country's IPR protection and their investment decisions. The tests are consistent with the proposition that stronger IPR protection is correlated with a greater volume of FDI.

The issues of Intellectual Property Rights in China

Based on the journal Intellectual Property Rights in China: Myths versus Reality (2007) explained the problems in intellectual property rights in China are

1. The guarantee of patent applications.

China has a shortage of qualified staff to manage patent applications which is growing at 30-40% per year. The number of patents examiners in China is just one third of total domestic patent applications. Only two thirds of examiners who have two years experiences, it affects the quality of the patent evaluation.

2. Few international patents.

China used to fill just 2% of patents applications outside country. Nowadays, the number of international patents in China is around 4%, which from research and development spend. It is starting for China to get international patents, and the applications of international patents grew five times in 2006. The increasing growth in patents in China affects the processing problems in the patents offices in several countries, such as the USA, European Union and Japan.

3. Shortage of Intellectual Property skills.

Most companies which provide intellectual property services to companies have qualified expertise to deal with the intellectual property issues in the country. The intellectual property development by foreign companies in China has been limited, because China has a shortage of intellectual property professional expertise.

4. Inconsistencies in the courts' dealing with the patent cases.

China has different court regulations in each regional. Only 40% of judges in China have joined intellectual property training programs. However, the government has started intellectual property training programs for the judges because of the European Union as the first supporter.

5. The shortage of respect by some Chinese companies and regional governments for patents and intellectual property rights.

The corruption is still a problem for the central government in China. The federal Supreme Court acts between the central government and foreign companies in China against corruption.

6. The major problem for patents and intellectual property rights in China is counterfeit goods.

Based on the European businesses in 2006, they stated that China is the major problematic market for counterfeiting products of intellectual property for European companies. The central government in China explains that the law enforcement is increasing every year. On the other hand, the imposition of moderate fines by international standard is a result from the successful of the trademark infractions. Many the legitimate trademark owners have complained about the law enforcement procedures are insufficient for their business.

Recommendation

The recommendations for the foreign companies in regards to protect their intellectual property rights in China are

1. Foreign companies in China have to register their intellectual property rights, such as trademarks, patents, and design rights.
2. The foreign companies have to make strategies for their intellectual property rights, which not depend with China Intellectual Property expertise. Therefore, foreign companies can monitor for the infractions in the market, and take a brief action.
3. Foreign companies have to apply the available process system to protect their intellectual property rights in China. Every foreign company in China needs to comprehend how the Chinese system works. "Forum Shopping" is a forum where a company fills their complaints with successful intellectual property litigation to the courts. Forum Shopping is as appropriate in China, Europe or the USA.
4. Foreign companies should promote intellectual property rights. They have to join in intellectual property industry groups to create communication with the local communities and companies for commenting and voicing about intellectual property protection. The foreign companies have to give a training program to their management teams about the significant of intellectual property rights.

Conclusion

Intellectual Property Right is a complex issue where the decision to enforce it or not will have a tradeoffs between the encouragement to "create" and innovate with the development of human capital. In China especially where there is a huge population and the country is still considered as a developing country, the decision whether to enforce IPR or not is influenced by many factor.

Based on the explanation above, we think that China should enforce the IPR in their country. We think that innovation is what makes a big business and a big business will help the economy country. The long term effect if there are many successful companies that innovates new products the benefits is

received by many parties. For example by having new companies that have innovative products it will promote export and aid the Chinese government to achieve a trade surplus. For the people of China, the emerging of new business means more workplace which will reduce the unemployment rate. Therefore from our point of view the benefit of enforcing the IPR is more than the cost that they need to sacrifice.

References

- Altbach, P. 1988. *Economic Progress Brings Copyright to Asia*. Retrieved May 13, 2009, from Electronic Journal.
- Chatterjee, S. David, J. Deng, F. Dippon, C. & Lopez, M. 2006. Intellectual Property Rights in Developing Nations, *NERA Economic Consulting*. Retrieved May 15, 2009, from Electronic Journal.
- Chin, JC & Grossman, GM 1988. *Intellectual Property Rights and North–South Trade. NBER Working Paper Series*, No. 2769 (Cambridge: National Bureau of Economic Research, November).
- Chin, JC & Grossman, GM 1990, “*Intellectual Property Rights and North-South Trade,*” in R. Jones and A.O. Krueger, Eds. *The Political Economy of International Trade: Essays in Honor of Robert E. Baldwin*. Cambridge, Mass: Blackwell.
- China Intellectual Property Report, July 2006, Interlingua Legal Publishing, Redondo Beach, CA, File No. C0604058, p. 1
- Croix, S. L, & Konan, D. E., 2000. *Intellectual Property Rights in China: The Changing Political Economy of Chinese-American Interests*. Retrieved May 18, 2009, from <http://scholarspace.manoa.hawaii.edu/handle/10125/6073>
- Deardoff, A.V. 1990, “*Welfare Effects of Global Patent Protection*”, *Economica* 59, p. 33-51.
- Decons, 2005. *China: Developing an Intellectual Property Protection Strategy for Today's China*. Retrieved May 18, 2009, from http://www.hg.org/articles/article_896.html
- Diwan, I. & Rodrick, D 1991, “*Patents, Appropriate Technology, and North- South Trade,*” *Journal of International Economics* 41, p. 95-112.
- Embassy of the United States, 2009. *IPR toolkit*. Retrieved 23 May 2009 from http://beijing.usembassy-china.org.cn/protecting_ipr.html
- European Commission, 2007. *Report on community customs activities on counterfeit and piracy*. Retrieved May, 15, 2009 from http://ec.europa.eu/taxation_customs/resources/documents/customs/customs_controls/counterfeit_piracy/statistics2007.pdf
- Grossman, G & Lai, ELC 2004. *International Protection of Intellectual Property. American Economic Review* 94 (December), 5: p. 1635–1653.

- Guanhong, T. 2004. ***A Comparative Study of Copyrights and the public interest in the United Kingdom and China***. Retrieved May 17, 2009, from <http://www.law.ed.ac.uk/ahrc/script-ed/issue2/china.asp>
- Harvey, I & Morgan, J, 2007. ***Intellectual Property Rights in China: Myths versus Reality***. Retrieved May 16, 2009, from <http://www.e3g.org/index.php/archive/archive-article/intellectual-property-rights-in-china-myths-versus-reality/>
- Helpman, E 1993, ***“Innovation, Imitation, and Intellectual Property Rights,”*** *Econometrica* 61, p. 1247-1280.
- Horstmann, IJ & Markusen, JR 1987, ***“Licensing v. Direct Investment: A Model of Internalization by the Multinational Enterprise,”*** *Canadian Journal of Economics* 20, p. 461-481.
- Japanese Copyright Research and Information Centre Website,. Retrieved May 15, 2009, from <http://www.cric.or.jp>.
- Konan, D.E., La Croix, SJ, Roumasset, JA, and Heinrich, J (1995), ***“Intellectual Property Rights in the Asia-Pacific Region: Problems, Patterns, and Policies,”*** *Asian-Pacific Economic Literature* 9, p. 13-35.
- Lai, ELC 1998. ***International Intellectual Property Rights Protection and the Rate of Product Innovation.*** *Journal of Development Economics* 55: p. 133–153.
- Lee, J-Y, & Mans, E 1996, ***“Intellectual Property Protection and U.S. Foreign Direct Investment,”*** *Review of Economics and Statistics* 78, p. 181-186.
- Lazar, J.C. 1996. ***Protecting Ideas and ideals*** : Copyright Law in the People's Republic of China. Retrieved May 13, 2009 from Electronic journal.
- Maskas, K., 2002. ***Intellectual Property Rights in the WTO accession package: assessing China's reforms.*** Retrieved May 18, 2009, from http://siteresources.worldbank.org/INTRANETTRADE/Resources/maskus_tips.pdf
- Nair, etc. 1998. ***Strategic alliances in China: Negotiating the barriers.*** Retrieved May 15, 2009, from Electronic journal.
- Tang, Y. 2008. ***Corporate strategies to protect Intellectual Property Rights in China.*** Retrieved May 20, 2009, from <http://www.buseco.monash.edu.au/research/mbr/2008//monash-university-mbr-the-right-protection-%5Bfulltext%5D.pdf>
- United States Department of Commerce International Trade Administration, 2003. ***Protecting your property rights in China.*** Retrieved May 20, 2009, from <http://www.mac.doc.gov/China/Docs/BusinessGuides/IntellectualPropertyRights.htm>
- Wan, H & Lu, M. 1997. ***An Analysis of Chinese laws Against Computer Crimes.*** Retrieved May 13, 2009 from Electronic journal.
- Wu, C. 1995. ***“Innovation, Patenting, and International Competitiveness: Empirical Evidence from China,”*** *Minnesota Journal of Global Trade* 5, p. 503-525.
- World Trade Organization (WTO) n.d. ***What are International Property Rights.*** Retrieved May 15, 2009, from http://www.wto.org/english/tratop_e/trips_e/intel1_e.htm