Institutionalization of intellectual property rights in China

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Abstract:

Institutional field Summary Following the 1978 political and economic reforms, China has undergone a significant transformation on the intellectual property rights (IPR) front. In this paper, we use neo-institutional theory to examine the institutionalization of IPR in China. Specifically, we examine the perceptions of national elites and the public regarding IPR as well as IPR related pressures facing these actors, their negotiation with other actors and their responses. Regulative, normative and cognitive institutions formed around the IPR field in China are analyzed.

Keywords: Intellectual property rights; Neo-institutional theory; Institutionalization; China;

Article:

Introduction

In a rich body of theory and empirical research, scholars have examined intellectual property rights (IPR) issues in China and other Asian economies. Macro-level studies in this area include the influence of culture on the Chinese IPR landscape (Alford, 1995), economic and political foundations of IPR-related disputes between China and the West (La Croix and Eby Konan, 2002), IPR enforcement problems in China (Massey, 2006) and IPR issues arising in specific industries such as agriculture (Van Wijk and Ramanna, 2007). At the micro-level, there has been considerable interest in how individualism and collectivism affect consumers' attitudes toward piracy and their orientations toward IPR from the ethical standpoint (Kwong et al., 2003).

Notably lacking from this literature, however, is explicit attention to a wide range of actors' perceptions of IPR related issues and the complex process of negotiation and interaction among them. Neo-institutional theory frames this process as the evolution of an institutional field. Note that a field is "formed around the issues that become important to the interests and objectives of specific collectives of organizations" (Hoffman, 1999, p. 352).

We argue that IPR in China, while well documented, is only partially understood. What are the natures of Chinese national elites' and consumers' perceptions of IPR? How do these and other field members interact and negotiate among themselves? These questions are not idiosyncratic to the Chinese economic system, but pertain to an under-researched subject in international business and management: what factors influence the process of societal adoption of foreign institutions (e.g., IPR protection) in emerging economies? Note that an institutional field supporting IPR in a developing economy requires the construction of new identities that redefine social, cognitive and moral legitimacy related to IPR (Misangyi et al., 2008). More broadly, mechanisms associated with institutional actors' adoption of "a new logic and identity" have been an under- researched aspect of institutional theory (Rao et al., 2003, p. 819). The purpose of our study is to fill this void.

We use neo-institutional theory as the theoretical framework. We pursue the line of reasoning related to institutional field, which is a notable research stream in the neo-institutional tradition. Note too that from the standpoint of the institutions-IPR nexus, China deserves special attention. China arguably deviates more than other economies from standard assumptions of neo-classical economics, especially the way institutions function. We examine the period after the 1978 political and economic reforms to present because China's IPR landscape has changed dramatically during this period (Table 1).

Table 1 Major events related to institutionalization of IPR in China: 1978-present		
Time	Event	
1978	Economic and political reforms started	
March 1978	The National Science Conference set the outline of National Science and Technology Development, 1978 1986	
1980	China joined the World Intellectual Property Organization	
1982	First trademark law was enacted	
1984	First ''modern'' patent law was enacted	
1984	China joined the Paris Convention	
1986	The 863 Program aimed at the development and research of high technology was approved	
1986	China and US initiated 'IPR consultations'	
1989	China joined the Madrid Protocol and the Washington Convention	
September 1990	The first copyright law was enacted	
1991	Regulations protecting computer software were enacted	
April 1991	The US added China to a list of countries allowing piracy of copyrights, patents, trademarks and trade secrets	
May 1991	The US opened a Special 301 investigation of IPR protection in China	
1992	Higher people's courts in several provinces and cities started establishing special IPR courts. By 1996, China had such courts in five provinces and cities: Hainan, Guangdong, Fujian, Beijing and Shanghai	
January 1992	China and the US settled the Section 301 action by entering into a Memorandum of Understanding (MOU). The MOU required China to join the Berne Convention and the Geneva Phonograms Convention	
October 1992	China joined the Berne Convention and the Universal Copyright Convention	
June 1993	China joined the Geneva Phonograms Convention	
1994	China joined the Patent Cooperation Treaty in 1994	
February 1995	The US announced its intent to impose \$1.08 billion in retaliatory tariffs for trade losses due to piracy in China	
Early 1996	The US asked Beijing to close factories producing pirated CDs and tighten customs controls on exports of pirated goods	
June 1996 1997	China agreed to close the infringing CD factories and to increase its enforcement efforts Raids in pirate CD factories	
August 2000 2001	The People's Congress approved amended Patent Law which came into effect in 2001 In CCP's 80th anniversary, President Jiang Zemin handed party membership to a capitalist. His company was the first to be listed on a foreign stock exchange	
October 2001	New copyright and trademark laws were enacted to conform to the TRIPS Agreement. The amendments broadened the list of protected works	
November 2001	China became a WTO member	
2002	Microsoft announced an investment of \$750 million in China	
2003	The CCP appointed one of China's wealthiest entrepreneurs as deputy chairman of an advisory body to the	
	Chongqing municipality	
March 2006	New law required local PC manufacturers to ship their products with licensed operating systems pre- installed	
2006	Shenzhen-based Netac sued PNY Technologies in a US federal court for patent infringement	
2007	The US initiated dispute settlement proceedings over deficiencies in China's IPR regime	

We turn our attention now to defining several concepts that we use in the paper. Following the World Trade Organization (WTO), we define Intellectual property rights as "the rights given to persons over the creations of their minds". These include patents, trademarks, copyright, trade secrets and industrial designs. Similarly, institutionalization is defined as the process by which a practice acquires legitimacy and achieves a taken for-granted status. Field members are defined as entities that have a voice in influencing institutional norms regarding IPR issues and participate in the negotiation on these issues. "Consumers" include both businesses as well as individuals using products involving IP.

In the remainder of the paper, we first briefly review methodology. Next, we discuss institutional fields as the theoretical foundation. Then, we examine the institutional field formed around IPR in China. The final section provides conclusions and implications.

Methodology

The approach employed in this paper can be described as a positivistic epistemology. Given the minute amount of existing research on IPR institutionalization in developing countries, much initial research in this area needs to be qualitative, concept- and theory-building in character. This paper takes such an approach.

Following the tradition of a positivist approach, this paper seeks to identify details associated with IPR institutionalization in China. Relationships between variables presented in Table 2 constitute a major building block of the theory development process. It should, however, be noted that these relationships do not themselves represent theory. We have provided reasoning and justification for each relationship in Table 2, which is the crucial part of the theory-development process (Webster and Watson, 2002). We have employed three main sources for the reasoning: theoretical explanations for "whys" and "hows" of IPR diffusion; past empirical findings; and practice or experience (Webster and Watson, 2002). Among these, the logical reasoning is the most important component of our explanations. It represents "the theoretical glue that welds the model together" (Whetten, 1989, p. 491). We have also included past empirical research related to IPR and from other related areas such as diffusion of civil service policies and programs (Tolbert and Zucker, 1983). Next, IPRrelated experiences of organizations reported in the practice and popular literatures also form an integral part of the reasoning (Webster and Watson, 2002). IPR related experiences of organizations such as Microsoft, Qualcomm, Netac, The Nanometer Technology Center, Motorola, Nokia, TCL, Ningbo Bird reported in outlets such as Business China, Beijing Review, Business Week, Forbes, Fortune, Guangzhou Daily, Harvard Business Review, IEEE Software, Los Angeles Times, Managing Intellectual Property, Newsweek, The International Herald Tribune, The Seattle Post and Wall Street Journal have also been used.

The theoretical framework

Fields are "evolving" rather than "static" in nature (Hoffman, 1999, p. 352). Institutional theorists make an intriguing argument as to how a field evolves. A field is a dynamic system characterized by the entry and exit of various members and constituencies with competing interests and disparate purposes and a change in interaction patterns among them (Barnett and Carroll, 1993). For a field formed around IPR, the members include regulatory authorities, political elites, Chinese Communist Party (CCP) leaders, private firms, government-owned enterprises, foreign governments and International institutions (e.g., the World Trade Organization (WTO) and the World Intellectual Property Organization (WIPO)) and consumer. As is the case of any issuebased field, these field members continuously negotiate over issue interpretation and engage in institutional war leading to institutional evolution (Barnett and Carroll, 1993; Hoffman, 1999). The "content, rhetoric, and dialogue" among the field members influence the nature of IPR diffusion and institutionalization (Hoffman, 1999, p. 355).

In an institutional field, various members differ in terms of their power and influence in shaping the field. The dominant field members, for instance, tend to be those with "greater formal authority, resources and discursive legitimacy" (Phillips et al., 2000, p. 33). A field member's degree of dominance is positively related to the member's influence in the development of the field's structures and practices (Phillips et al., 2000).

Institutions include formal as well as informal constraints. Formal constraints can be mapped with Scott's (2001) regulative pillar while informal constraints can be mapped with normative and cognitive pillars. Prior research indicates that institutional evolution entails a sequence of evolutionary development among the three institutional pillars—regulative, normative and cognitive. Building a regulative/law pillar system is the first stage of field formation. According to Hoffman (1999), it is followed by formation of normative institutions (IPR protection as an "ethically appropriate" behavior) (p. 363) and then cognitive institutions ("culturally supported belief" related to the importance of IPR protection) (p. 364).

Regulative pillar related to IPR

Regulative institutions consist of regulatory bodies (such as the Chinese State Council) and existing laws and rules related to IPR. The formation of this pillar is characterized by the establishment of IPR related legal and regulatory infrastructures (Hoffman, 1999). The strength of this pillar also depends upon the state's

administrative capacities and citizens' willingness to accept the established regulative institutions.

Normative and cognitive pillars related to IPR

Responses to external pressures are functions of a social construction. An institutional field supporting IPR in a developing economy requires the construction of new identities that redefine social, cognitive and moral legitimacy related to IPR, frame action in a pro-IPR manner, and facilitate the development of habits and practices consistent with a proIPR logic (Misangyi et al., 2008). A normative institutional pillar is said to be established regarding IPR if protecting IPR is viewed as an ethically appropriate behavior and institutional actors feel a sense of social obligation to protect IPR. Likewise, a cognitive pillar related to IPR is established if there is a culturally supported belief that favors IPR protection (Hoffman, 1999). Measures taken to build normative and cognitive pillars should affect both substance as well as symbolism from the standpoint of IPR (Misangyi et al., 2008).

To examine the nature of the field formed around IPR, we analyze perceptions and responses of two categories of institutional actors—the government or more broadly "national elites" and consumers or more broadly "the public".

The government and national elites

The research literature provides abundant evidence that the state is the most important and powerful institutional actor (Scott, 2001). The government acts as a mediator between the state and other institutional actors (e.g., the pro- and anti-IPR actors noted above). More broadly, the concept of political/national elite helps us better understand these dynamics. Political elites are persons that have potential to influence national policy making. High-ranking government officials, corporate executives, labor unions and various interests groups are parts of national elites. In addition to their role in the establishment of regulative pillar, political elites' norms and cognitions (e.g., a sense of national pride and negative attitude associated with dependence on foreign countries) are reflected in their preference to domestic versus foreign IP.

	The government/national elites	Consumers/public
Regulative pillar related to IPR	[1] • Nature of IPR related pressures facing the government • Domestic creation of IP • Degree of local value addition associated with IP • Administrative capacities to enforce laws	[2] • Consumers' perceptions of the legal system and their propensity to comply with law
	[4]	[3]
Normative and cognitive pillars related to IPR	 Normative preferences associated with domestic and foreign IPs 	 Perception of IPR from cultural and historical standpoint Level of diffusion of IPR/ products consisting of IPR influencing voluntary diffusion Trust and perception of IPR owners

Consumers and the public

Citizens' willingness to accept the IPR related regulative institutions; as well as cognitive and moral judgments of IPR determine their propensity to engage in IPR violation. To understand this dynamics, it may be helpful to differentiate IPR violations by businesses and consumers1. Note that IPR infringement in China is more a problem of enforcement of laws than absence of laws (Massey, 2006). IPR violations by businesses involve an identifiable and limited number of firms and also specific types of IPR, such as patents, trade mark protection, trade secrets. In this regard, the Chinese government's measures to stop businesses from manufacturing pirated goods have been largely successful. Prior researchers have noted that the "root cause" of piracy lies in the demand side (Kwong et al., 2003, p. 224). IPR violations by consumers, on the other hand, entail violation of copyright protection by a largely anonymous mass of users. As noted above, it has been more difficult to control such violations in China, which have created congestion in the law enforcement system. Estimates suggest that software piracy rate in the country was about 82% in 2007.

The institutional field formed around IPR in China

In order to make our presentation clearer, we adopt the structure of Table 2. Table 2 presents how the two sets of institutional actors and institutional pillars discussed in the previous section are related. In this section, we discuss different elements of Table 2 from the standpoint of the institutional field formed around IPR.

The government and national elites

Nature of IPR related pressures facing the government

The field formed around IPR consists of domestic and foreign field members with competing interests. The WTO, Western governments (Table 1) and China's competitive firms are providing pressures to protect IPR. Most state-owned enterprises are less innovative and thus lobby strongly against IPR initiatives. Chinese conservative leaders also perceive improved legal institutions as potential challenges for legitimacy to the CCP regime (Potter, 2004).

The government's IPR related response thus entails complex processes related to control in domestic affairs and in the international arena. Institutional theorists have recognized that when actors with conflicting demands are to be appeased and served, a decoupling of responses may help decision makers retain credibility and minimize cognitive dissonance (Westphal and Zajac, 2001). The idea of strategic decoupling provides a useful analytical framework and can be helpful in understanding this dynamic. Strategic decoupling entails simultaneously utilizing different combinations of actions in parallel to appease and serve various institutional actors.

Different theoretical contributions and various empirical studies have led to the accepted view that the exact nature of decoupling is a function of relative powers of competing organizational and institutional interests (Westphal and Zajac, 2001). These studies also provide support for the notion that substantial responses cannot be made to appease actors that diametrically oppose one another. In such cases, the substantive response relates to the threat or opportunity associated with the more powerful actor and the symbolic response relates to the threat or opportunity associated with the less powerful actor.

The strength of pressure exerted by an institutional actor is a function of the importance of the resources from the actor's standpoint. In this regard, the CCP's basis of legitimacy has shifted from Marxism to economic growth and development. Global integration is thus a matter of central importance for the Chinese government. To acquire international legitimacy, Beijing has thus established IPR related legal and regulatory infrastructures and has strengthened the regulative pillar of the institutional field formed around IPR.

It is argued that foreign businesses' "impressive" victories in Chinese courts in IPR and related issues can be explained by China's integration into the global economy. The country's many technology companies are listed on foreign stock exchanges, which means that they are liable for lawsuits filed abroad. By gaining legitimacy, the Chinese government could gain more control over the international agenda rather than being forced to accept the international pressure.

Domestic creation of IP

Institutional theorists have conceptualized legitimacy as being related to the potential loss or gain of resources (Tolbert and Zucker, 1983). In this regard, as most developing countries are net IP importers, compliance with TRIPS to gain international legitimacy may lead to a loss of resources. A developing country's capability of creating local IP reduces the loss of resources associated with complying with IPR pressures.

But there is another point that is perhaps even more important. Most obviously, domestic production of IP implies the existence of local competitive firms favoring IPR protection. The emergence of local IP producers can change the configuration of the IPR field by changing the power balance and interaction patterns among institutional actors. A shift of power balance in favor of pro-reform actors forces the government to increase the substantiveness of measures to protect IPR.

And more importantly, domestic pro-IPR actors tend to have some distinctive abilities to influence the

government's IPR related actions. Compared to foreign actors, they are likely to have more intimate contacts and connections with government officials and exert considerable influence in the national policy making arena.

China has arguably been compelled to adopt international principles and rules because of the potential benefits to domestic industry. China's reformist leaders think that compliance with the IPR regime would help encourage innovations, pursue free market capitalism and eliminate inefficient state enterprises.

In 2006, the government announced a plan to make China an "innovation-oriented" society by 2020. China has also initiated aggressive approaches to set its own technical standards and to enhance value from its IP. Chinese firms have started exercising their rights in foreign courts. For instance, in 2006, the Shenzhen-based flash drive maker, Netac, sued PNY Technologies in a US federal court for patent infringement. Similarly, Baijia, a Chinese noodle maker, fought a trademark infringement case in Germany.

China ranked behind only the US in the number of scientists, and in 2005 Chinese researchers published more scientific papers than their colleagues anywhere except in the US, Britain, Germany, and Japan. The number of patent applications received by the Chinese government increased from 80,000 in 1995 to over 120,000 in 1998. The number of patents applied for by Chinese inventors at US patent offices increased six-fold in the 1990s. According to the World Intellectual Property Organization, in 2004, China accounted for 130,000 patent applications and ranked No. 5 globally. R&D expenditures as a percentage of GDP doubled during 1995–2005, and 200 new research centers are added every year.

A rapid increase in domestic IP creation has led to more substantive measures to protect IPR. An increasing number of Chinese technology firms are seeking protection under IPR laws and suing infringers in Chinese and foreign courts (Massey, 2006). Local firms' active participation in this domain has helped strengthen the country's IPR regime. In 2005, over 16,000 civil cases and 3500 criminal cases related to IPR violations were handled by Chinese courts, and more than 2900 people were jailed. The number of such cases increased by 52% in 2007. What is more, 95% of China's IPR related cases in 2005 were brought by Chinese companies. Such a trend indicates the increasingly active role of Chinese businesses in strengthening IPR related regulative institutions.

The Chinese nanotechnology industry particularly provides a visible example for illustrating how local IP creation has led to substantive actions to protect IPR. Note that in 2005, China's nanotechnology spending ranked fourth in the world behind the US, Japan and Germany. In purchasing power parity terms, however, China's investment in nano-tech research comes second only to the US. The Nanometer Technology Center established in Beijing is actively involved in protecting IPR.

The research literature provides abundant evidence that actors with key strategic resources or power have significant impacts on the evolution of institutions and institutional fields (Lawrence and Suddaby, 2006). Institutional researchers have come up with the influential concept of institutional entrepreneurship to examine the role of these actors in creating new institutions. DiMaggio (1988, p. 14) notes that "new institutions arise when organized actors with sufficient resources (institutional entrepreneurs) see in them an opportunity to realize interests that they value highly".

Chinese local firms' measures to change institutional field related to IPR (e.g., through the creation of the Nanometer Technology Center) can be considered as good examples of institutional entrepreneurship. Other "endogenous" institutional entrepreneurs (e.g., government and CCP officials) and "exogenous institutional entrepreneurs" (e.g., the WTO, the WIPO, and foreign multinationals) also play important roles in changing the anti-IPR culture and the institutional field formed around IPR (Misangyi et al., 2008, p. 766). For instance, part of Microsoft's broad-scoped investment of \$750 million announced in 2002 was spent on measures to raise industry standards and ethics. In order to gain local legitimacy, Microsoft: (1) donated money to educational project; (2) intensified R&D and established JV local companies to more effectively fight piracy; and (3) appointed a well-connected Chinese CEO to improve its image in relations with Beijing. Microsoft has

made diplomatic moves to influence Chinese central and local governments and Chinese consumers.

An institutional entrepreneur's success in constructing a new institutional logic around IPR hinges on having an access to four types of resources – economic, cultural, social, and symbolic (Misangyi et al., 2008). Local firms in China tend to perform better than foreign multinationals in terms of the last three types of resources. First, local IP creation contributes to the Chinese culture of strong nationalism. Second, compared to foreign multinationals, local firms tend to have higher social capital in the form of strong guanxi. Finally, the CCP has welcomed entrepreneurs in the inner circle and upper echelons of the party. While some argue that these entrepreneurs may not possess substantive power, they are likely to have symbolic influence in the field formed around IPR. With increasing success both abroad and at home, Chinese firms can mobilize sizeable economic resources. Local firms' degree of dominance in the Chinese IPR field is thus increasing (Phillips et al., 2000; Misangyi et al., 2008).

Degree of local value addition associated with IP

An organization is likely to "acquiesce to external pressures when these pressures... are compatible with internal goals" (Oliver, 1991, p. 165). In this regard, from a developing country's perspective, with respect to IP, what matters regarding local firms' success is not simply how much IP is generated locally but whether the firms possess capabilities to develop products based on domestic or foreign IP, and to what extent they can do so. A developing country government may thus engage in substantive actions to protect IPR (satisfying outside expectations) if local companies possess capabilities to benefit from foreign IP (protecting local needs/achieving internal goals).

Achievement of complementarity is another way of viewing this dynamic. The basic idea behind complementarity is simple: It describes a situation in which seemingly contradictory phenomena can be combined so that they reinforce each other effectively, while at the same time essential characteristics of each component are preserved (Potter, 2004). Put differently, complementarity erodes the boundary between foreign rules (e.g., IPR) and local norms (e.g., economic independence) (Rao et al., 2005).

While China's achievement on the IP front is impressive, most Chinese companies still depend on foreign IP. For instance, Qualcomm's CEO said that his company's R&D has enabled Chinese companies to build cellphones. One likely possibility is that local firms' enhanced capability to engage in significant value addition activities by using foreign IP weakens anti-IPR actors such as less innovative state-owned enterprises and leftist leaders (Potter, 2004).

China's new law announced in 2006 requires local computer manufacturers to pre-install their products with licensed operating systems. Chinese computer manufacturers have signed licensing deals with Microsoft. Lenovo alone signed a \$1.2 billion deal with Microsoft in April 2006. Microsoft's dominant market share and network effect mean that the deal could help Chinese PC manufacturers build a successful brand image. Analysts observed that Windows would help improve Lenovo's brand image. By mid-2007, Lenovo enjoyed a 36% share in the Chinese computer market. Chinese computer firms have thus achieved complementarity with foreign IP. The remarkable co-existence of local firms' reliance on foreign IP and the advent of their business success have led to reinterpretation of IPR issues locally.

Judo is probably an appropriate analogy for describing Chinese firms' achievement of complementarity with foreign IP. To substantiate this claim, we consider the handset telephony industry. Like a judo artist, Chinese handset makers used the strength of stronger foreign competitors to attack the latter's market shares. While European and US multinationals such as Alcatel, Motorola and Nokia were selling handsets based on the Europe-originated GSM standard, Chinese firms became ready for a frontal attack by capitalizing on their knowledge of the country's distribution networks. These two apparently contradictory phenomena – Chinese firms' dependence on foreign IP and their business successes – are operating together and are mutually reinforcing, thus achieving complementarity.

Administrative capacities to enforce laws

The most glaring shortcoming of the regulative pillar of institutional field formed around IPR in China has been an absence of effective procedural and remedial mechanisms. Corruption in the courts has been an issue of big concern in the country (Liu, 2006). The CCP's Political–Legal Committee, local party committees and local governments control personnel and funding in the courts (Liu, 2006).

China has been undergoing a significant transformation and the government's attention has been arguably and understandably diverted to other more urgent issues. While the central government's "substantial administrative apparatus" to enforce IPR laws (Massey, 2006, p. 236) is impressive, IPR issues haven't received the same level of attention as other issues such as cyber-control.

Following the reforms, the state's power on the Chinese economy and society further declined and formal decision-making mechanisms significantly decentralized. The central government, for instance, has provided a significant empowerment to regulatory agencies involved in IPR issues such as the State Administration of Industry and Commerce, the State Administration of Press and Publications, the intellectual property right office and the State Pharmaceutical Administration.

Provincial and local agencies do not necessarily share the same motivation as the central government to strengthen the IPR regime. While they have taken symbolic IPR measures by amending and abolishing local laws and regulations that do not comply with the WTO, it is far from clear whether local authorities take substantive actions by cooperating with central authorities on enforcement measures. It is also not clear whether the central government can compel provincial and local governments to enforce IPR laws (Massey, 2006).

Normative preferences associated with domestic and foreign IPs

Notwithstanding the limits imposed by capitalism on states, political elites possess some autonomy. Political elites' power and influence tend to be more evident in emerging economies with a weak rule of law. Some argue that, in China "the law is marginalised and the legal system relegated to a lowly position in a spectrum of meditative mechanisms, while at the same time available for manipulation by powerful sectors within the state and the society at large" (Myers, 1996, p. 188). The regulatory vacuum thus strengthens political elites' power in China. Political elites' norms and cognitions such as a sense of national pride and negative attitude associated with dependence on foreign countries are reflected in their bias against foreign IP. In the past, the Chinese government resisted foreign pressures to comply with IPR, because such pressures were associated with a high degree of dependence on foreign IP (Oliver, 1991).

Partly because of the fear concerning dependence on foreign countries and a sense of national pride, the principle of national self-reliance dominated the Chinese economic system during the Mao Tse Tung era. Notwithstanding a significant shift in attitude toward technology import in recent years, due to a lack of significant alteration in political structure, a high level of advocacy for national self-reliance and domestic development of technology exist among Chinese policy makers, researchers, scientists and military leaders.

Chinese government officials and national elites do not like to see the country's economy dominated by foreign firms. Indeed, foreign technology imports and outflow of IP royalties have been a focus of concern among Chinese political elites. Chinese scientists and engineers have made several attempts to create Chinese standards in computer operating systems, and also in audio-video compression to third generation (3G) data standards. They want to achieve self reliance and reverse the flow of IP royalties by exporting Chinese ICT standards. Chinese firms' growing prowess on the IP front is weakening the boundary between foreign rules and local norms which increases the likelihood of importation of IPR related practices (Rao et al., 2005).

Consumers and the public

Consumers' perceptions of the legal system and their propensity to comply with law

China's central government leaders no longer "ignore or promote the infringement" of IPR (Massey, 2006, p. 236) and many new laws related to IPR have been enacted. What matters in the strengthening of the regulative

pillar, however, is not simply how many new laws are enacted but how citizens perceive the fairness of the legal system and how willing they are in obeying the laws. Chinese consumers' attitudes towards the new legal institutions are powerfully illustrated in the Chinese saying "Heaven is high and the emperor is far away". Historically, control by the central government was never very strong. To take an example, in the early 2000s, the Chinese government's mandate to switch nationwide from Windows to Red Flag Linux failed. The "widespread non-compliance with law" can be partly attributed to "the disrepute of the legal system and a historical distrust of the ruling authorities", which remain huge obstacles in the transplantation of institutions borrowed from the west such as IPR (Liu, 2006, p. 738).

Perception of IPR from cultural and historical standpoint

History plays an important role in institutional development and diffusion of foreign practices (Van Wijk and Ramanna, 2007). Prior researchers have recognized that "indigenous ideological traditions" affect the success of practices imported from outside (Jenkins, 2003, p. 584). Speaking of the problems in transplanting Western institutions in Eastern European economies, Offe (1996) notes: "the newly founded institutions... fail[ed] to perform in anticipated ways" because of "unreconstructed mental and moral dispositions inherited from the old regime" (p. 212). Providing further insights along these lines, the literature provides evidence that social embeddedness of foreign practices in the local institutional environment is crucial for new institutional frameworks to succeed (Van Wijk and Ramanna, 2007).

In this regard, law and culture in the Imperial China did not consider ideas as property. While certain codes prohibited the copying of certain texts or use of some symbols during imperial times, these codes' purpose was only to protect the emperor's legitimacy and power (Alford, 1995). Indeed, there was a lack of the concept of IP in the entire history of China. Chinese culture encourages and emphasizes learning by copying and modifying in various aspects of individual and business activities (Chae and McHaney, 2006). The pattern of IPR diffusion in China can also be attributed to the Confucianism heritage, which emphasizes the importance of the society. A related point is that Japan's copyright law also "reveals a balancing of interests between individual and society" (Harris, 2002, p. 85). In the colonial period, Western countries' attempt to impose IP laws on China thus failed (Alford, 1995). Beyond all that, Marxist principles condemned competition, capitalism and private property. Studies have found that some Chinese consumers still expect entrepreneurs to provide socialist benefits. China's history and culture have thus hindered the development of a sense of social obligation to protect IPR (normative pillar of IPR field) and a belief that ideas belong to the creator (cognitive pillar of IPR field).

History and culture have also influenced the lens through which consumers view ethics from the standpoint of piracy. Prior literature has successfully applied culture to explain ethical insensitivity related to software piracy. In Kwong et al.'s (2003) sample of Chinese consumers, over 70% of the respondents had bought pirated CDs. The respondents, who were business school students, did not consider buying pirated CDs as an unethical behavior and perceived it as having a high social benefit and a low social cost.

Level of diffusion of IPR/products consisting of IPR influencing voluntary diffusion

In addition to culture and history discussed above, the nature of the current anti-IPR institutional orders can be attributed to the relative newness of IPR issues in China. Different theoretical contributions and various empirical studies have led to the accepted view that when institutional rules and norms are broadly diffused and supported, organizations are more likely to acquiesce to these pressures because their social validity is largely unquestioned. For instance, Tolbert and Zucker's (1983) study indicated that the degree of diffusion of civil service policies and programs was positively related to the probability of adoption by a firm that hadn't yet adopted such policies and programs.

A person's willingness to engage in an illegal activity also depends upon an assessment of psychological costs of engaging in such activity. Most people involved in piracy don't perceive their actions' ethical implications. The technology's novelty; a lack of previously developed mechanisms and established codes, policies, and procedures; and the lack of easily identifiable victims may lead to less guilt in IPR violation compared to conventional crimes. Most obviously, these conditions are more prevalent in economies with a low degree of

institutionalization of IPR or a low degree of diffusion of IPR related products. As a related point, it should be noted that software sharing was more common in the US when computers were rare than it is today. Stated simply, software piracy is not considered to be cognitively and morally wrong for many Chinese software users. When the perceived probability of arrest and the perceived probability of conviction are low, due to cognitive and moral legitimacy, they are likely to purposively engage in piracy.

Trust and perception of IPR owners

Research in psychology and sociology indicates that relational trust is associated with cognitive, normative, and affective biases and tendencies (Kramer, 1999). In this regard, China is arguably a low-trust society characterized by a tendency to distrust out-group members (Fukuyama, 1995). China's state sponsored "racial" nationalism further intensified the distrust of foreigners (Sautman, 2001, p. 95). Since most IP producers are foreign multinationals, this factor hindered public and consumer support to IPR and the formation of cognitive and normative pillars related to IPR.

Measures taken by foreign IP producers such as Microsoft reinforced and amplified the distrust of foreign multinationals. In 1999 Microsoft China's general manager, Juliet Wu, left the company and wrote a book arguing that the company was "arrogant", "selfish" and an "enemy of Chinese consumers". Microsoft faces an image problem in China because of unfavorable press coverage of its aggressive pricing and anti-piracy campaigns. Microsoft Windows 98's price of US\$241 translated to four months' salary for an average Chinese worker. An entrepreneur sued Microsoft for unfair pricing. Starting the late 1990s, Microsoft began suing Chinese computer manufactures shipping PCs with pirated Windows and companies using such software. Microsoft's litigious policy supported the belief that the company was attempting to dominate the market, eliminate competition and bully small Chinese firms.

Relationships among various elements presented in Table 2

Anti-IPR institutional orders and sentiments thus tend to persist in China. Characteristics of the government, national elites, consumers and IP owners have mutually reinforced each other and formed the vicious circle of IPR violation. The vicious circle can be explained in terms of the relationships among various elements in Table 2.

A person's decision to participate in an illegal activity such as IPR violation is a function of the expected probability of arrest and conviction and the expected penalty if the person is convicted. The central government has devoted relatively fewer resources in to IPR protection measures compared to other issues that it considers more urgent such as those related to maintaining national unity and social stability. For instance, China has the world's largest cyber police force. The low expected probability of arrest and conviction has given a positive feedback to IPR violators. Beyond all that, piracy is not considered to be cognitively and morally wrong. The existence of a large number of IPR violators, on the other hand, has led to inefficiency and congestion in the law enforcement system.

Another potential reason why Chinese consumers are do not comply with IPR laws concerns their perception of IPR enforcement tools as supports to foreign software companies rather than ordinary Chinese citizens. Negative attitudes towards foreign IP owners can also be attributed to Chinese nationalism, which is viewed as state sponsored. Regarding the formative dynamics of Chineseness among Chinese citizens, Sautman (2001) has documented how China has adapted a body of complex scholarship to achieve this goal. He notes: "Nowhere is this more pronounced than in China, where the disciplines [of Archaeology and paleoan-thropology2] provide the conceptual warp and woof of China's "racial" nationalism" (Sautman, 2001, p. 95). Ironically foreign multinationals' measures to protect IPR hindered the formation of normative and cognitive pillars related to IPR because of the strong Chinese nationalism and distrust of foreigners.

It is also important, in this context, to look at the connection between formal and informal institutions. Axelrod (1997, p. 61) comments: "Social norms and laws are often mutually supporting. This is true because social

norms can become formalized into laws and because laws provide external validation of norms". To put things in context, cognitive and moral judgments of national elites and citizens have influenced the formation of the regulative pillar of China's IPR related institutional field. For instance, the conservative faction in the CCP perceives institutions built to promote efficient IPR as potential threats to the party's ideology (Potter, 2004). Chinese leftist leaders and some government officials associate China's global integration with significant socioeconomic costs. Analysts argue that the delay in enacting IPR laws (Table 1) reflected Chinese national elites' ideologies. IPR enforcement is also hampered by negative attitudes towards IP of people involved in law enforcement.

Discussion and implications

Our analysis contributes to the literature by highlighting the processes and mechanisms associated with national elites' and consumers' perceptions of IPR issues, the dynamics of interaction and negotiation among various institutional actors and their responses. The findings presented are broadly consistent with existing theories on institutional field formation. Nonetheless, this paper reveals unique mechanisms associated with Chinese institutions in shaping the country's IPR landscape.

First, let us consider the government as the field member (Cell 1, Table 2). In a field, the dominant members will be those with "greater formal authority, resources and discursive legitimacy" (Phillips et al., 2000, p. 33). As noted previously, a member's degree of dominance is positively related to its influence in the development of the field's structures and practices. Three further observations are worth making regarding the Chinese central government's dominance in the IPR field. First, it traditionally lacked formal authority, and this is even decreasing in recent years. There is evidence of the decentralization of formal decision-making mechanisms and the state's declining power over the Chinese economy and society. Second, as noted above, the government has devoted relatively fewer resources in measures to protect IPR compared to other issues that it considers more urgent such as those related to maintaining unity and stability. Third, to be successful, efforts to secure discursive legitimacy to a practice need to be linked to larger societal values. As noted above, IPR is not consistent with Chinese values, which emphasizes learning by copying and modifying (Chae and McHaney, 2006).

An important role of the government as a member of the institutional field is to facilitate the institutionalization of IPR. In this regard, we also noted above that government's weak law enforcement systems and consumers' non-compliance with laws have reinforced each other and formed the vicious circle of IPR violation. One way to break this circle would be to alter the cost/benefit calculus associated with piracy and improve consumers' confidence and belief in the fairness of the legal system. An increase in the certainty of punishment by devoting more resources to combat IPR violation; and an increase in the severity of punishment by introducing new laws and changing the existing laws may also lead to a higher perceived cost of IPR violation for consumers (Cell 2, Table 2).

According to Hoffman's (1999) model, the current Chinese IPR landscape can be viewed as in the first stage of building a regulative/law pillar system. This is a result of IPR related pressures from international agencies and western governments. Domestic creations of IP and local firms' capabilities for utilizing foreign IP have allowed China to gain legitimacy by developing regulative institutions related to IPR without losing too many resources. Chinese firms' growing prowess on the IP front is also eroding the boundaries between foreign IPR rules and local norms (Rao et al., 2005). Yet, notwithstanding the accomplishments on the regulative front, normative and cognitive institutions related to IPR have been slow to develop. The most severe barrier to the institutionalization of IPR probably is related to a lack of social and cultural acceptability of IPR (Cell 3, Table 2). Our point about the slow rate of development of normative and cognitive institutions is thus similar to that faced by other emerging economies in societal adoption of foreign institutions (e.g., Jenkins, 2003; Offe, 1996; Van Wijk and Ramanna, 2007).

One way to achieve social legitimacy of IPR for the government and IPR producers would be to take collaborative measures to change public opinion in favor of IPR protection. In Sweden, for instance, the think

tank, Timbro is working to bring a long-term shift in the public opinion that favors free markets, entrepreneurship, private property, and an open society. The institute is funded mostly by large Swedish corporations. The Chinese government thus can borrow a page from Timbro's lesson book. A related point is that consumers with a favorable opinion of IPR protection are likely to experience a high psychic cost of violating IPR, which helps to break the vicious circle of IPR violation discussed above.

Chinese technology firms' rapid internationalization is also likely to change Chinese national elites' normative bias against foreign IPs (Cell 4, Table 2). As noted previously, some Chinese technology firms have already challenged foreign companies in Western courts for IPR violations.

Western countries differ from China in terms of most of the elements presented in Table 2 and thus are at different phases of IPR institutionalization. Other Asian economies also differ from China in terms of elements presented in Table 2 and hence exhibit a different pattern of IPR institutionalization. For instance, as is the case of China, Japan's copyright laws also emphasize the interest of the society (Harris, 2002). From the standpoint of IPR diffusion and formation of field around this issue, an important way in which China differs from Japan concerns its longer IPR history (Cell 3, Table 2). Japan, for instance, joined the Berne Union in 1899. The copyright Act of 1899 remained in effect until it was replaced by the current statute in 1970, which has been amended several times (Harris, 2002). Japan also has a stronger rule of law (Cell 1, Table 2) and citizens, who are more willing to accept established institutions (Cell 2, Table 2). Japanese national elites may also differ in terms of normative preferences associated with domestic and foreign IPs (Cell 4, Table 2).

Several limitations of this research must be recognized in a balanced discussion of its findings. First, this paper mainly focused on perceptions and responses of the government and consumers as members of the institutional field formed around IPR. In this regard, our work opens new areas of research in terms of how other field members (e.g., foreign multinationals and international institutions) are likely to shape the IPR related institutional field in emerging economies.

Second, some of the conclusions drawn in this article may not apply to other emerging economies. As to the government's roles in shaping the IPR related institutional field, for instance, governments in other economies may differ in terms of formal authority, resources at their disposal and the nature of discursive legitimacy (Phillips et al., 2000).

Finally, we did not treat separately the two pillars related to informal institutions—normative and cognitive (Scott, 2001). More detailed discussion of normative and cognitive institutions would shed more light on the institutionalization of IPR in China. Instead of combining the two pillars together, their separate analyses may offer additional insights into the nature of the evolution of institutional field formed around IPR.

Note:

record.

The author thanks an anonymous EMJ reviewer for pointing this out.
 Archaeology is the study of ancient societies and cultures. Paleoanthropology is the study of the human fossil

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