

# Research and Suggestions on the Coordinated Management and Protection of Intellectual Property in China

Chen Meizhang

(Teaching and Research Centre of Intellectual Property, PKU, Beijing 100871)

*From two aspects of intellectual property management, namely the subject and the object, this article discusses the development and improvement of intellectual property system in China and the gap and problems existed compared with developed countries. Based on this, the issue of how to improve the coordinated management of intellectual property is studied and the relevant proposals are put forward.*

**Key words** intellectual property, coordinated management, protection

Since the implementation of its reform and open-up policies, China's intellectual property management has developed rapidly. Meanwhile, we should also be aware of the gap between China's intellectual property management practices and the demands driven by state social and economic development, and the inconsistency with the trend of the international intellectual property system and the requirements of the WTO rules. The existing gaps and problems can be summarized as the following five aspects: Firstly, from the perspective of the subject of the management, there lacks an authoritative and unified management body, which results in the difficulty in carrying out unified and effective planning and administration; secondly, from the perspective of the object of the management, the number of intellectual property application per million people still ranks comparatively low in the world. Furthermore, both the quantity and quality of the applications need to be increased and the structure readjusted so that we could strengthen our competitiveness and become a strong country in terms of intellectual property; thirdly, as for the content of the management, there exists a gap in the comprehensive capability of intellectual property system, namely in respects of examination, ju-

dicial review, enforcement, management, service and application, compared with those of the developed countries; fourthly, from the perspective of the foundation of management, Chinese enterprises are still relatively weak at intellectual property management and protection, i.e. they file fewer intellectual property applications, they do not own many intellectual property rights and they seldom apply for the intellectual property successfully; fifthly, the education and training of human talents in intellectual property can hardly accommodate the needs of China's social and economic development or meet the new challenges brought by its entry into the WTO. The overall national awareness of intellectual property needs to be enhanced.

In order to strengthen the coordinated management and protection of intellectual property rights and fully demonstrate the functions of intellectual property system in our national social and economic development, the following proposals are put forward to deal with five major problems:

## 1 To Perfect Intellectual Property Management Subject and Establish State Ministry of Intellectual Property

In order to strengthen the coordinated management and protection of intellectual property, it is necessary to establish an authoritative and effective intellectual property administrative department, i.e. state intellectual property department, to unify the national intellectual property administrative work. The reasons are as follows:

### 1.1 Knowledge-based industry is strategically important

Knowledge-based industry normally refers to those human-resource intensive industry depending on knowledge and technology, including knowledge-intensive manufacturing and service industry. Nowadays, knowl-

edge-based industry includes new high-technology industry, communication industry, finance and insurance industry, etc. According to the statistics of the Organization of Economic Cooperation and Development (OECD)<sup>[1]</sup>, the knowledge-based industry of its member states on average accounted for 45% of the national economy in the 1980s. It increased to 51% in 1994, with the percentage of Germany, America, Japan, U. K., Canada, Sweden, Netherlands and France all exceeding 50%.

In terms of copyright industry, the output value of China's book publishing industry, newspapers and periodicals industry, audiovisual and electronic publication industry was RMB 126.3 billion. Adding the output value of software industry being RMB 17 billion, the total value amounted to RMB 143.3 billion in 1998, which accounted for 1.8% of the GDP which was RMB 7,955.28 billion. If all other sections of the copyright industry are included, it is estimated that the copyright industry would account for some 5% of the GDP<sup>[2]</sup>. Taking the trademark industry into account, the contribution of the whole intellectual property industry to the national economy should not be underestimated. Hence an authoritative and unified institute is needed in order to successfully manage such a huge industry. It is very reasonable for the WTO to consider intellectual property as one of its three pillars.

Several ministries under the State Council are in charge of the administration of intellectual property. Since intellectual property industry plays a significant role in national economic and social development, especially after it was placed in the framework of the WTO, it becomes essential to set up a department for the purpose of intellectual property management with its growing importance to the world's technology, economics, trade and even political affairs.

## **1.2 Intellectual property is characterized by unique management rules**

Intellectual property management is characterized by unique rules: Firstly, management must be implemented in compliance with laws. Since exclusive right characterizes intellectual property, the intellectual property laws made by the state embody all the interests of the state, the public and the right owners. Thus, the management subject must exercise the management in line with the laws. Secondly, dynamic management is required. Since intellectual property is only valid within the duration of protection, its legal status is changing as time goes by. In order to effectively display the role of intel-

lectual property to promote the economic and social development, implementation of dynamic management from both operation mechanism and legal protection mechanism is required. Thirdly, market management is needed. On one hand intellectual property system is the product of market economy, while on the other hand it serves the market economy in return. Intellectual property management must abide by the rules of market economy, be guided by market mechanism, bear the goal of market efficiency in mind and keep the protection of the interests of right owners at core. Fourthly, international management is needed. Although intellectual property is basically locally protected, it is an internationally recognized legal regime. It concerns not only domestic laws but also international treaties and foreign laws. It involves not only domestic market but also international market. As the management of intellectual property has these features different from those of tangible property, it is necessary to set up an authoritative department to exercise effective management in accordance with the unique features of intellectual property.

## **1.3 Intellectual property needs coordinated management because of its involvement of extensive industries**

Because of its unique features, intellectual property involves extensive industries. Domestically speaking, it closely relates to department of science and technology, department of culture, department of industry and commerce, department of economics, department of justice, department of public security, department of foreign trade, department of manufacture, department of education and the customs, etc. Internationally speaking, as a result of the tendency of internationalization of intellectual property, foreign-related intellectual property disputes will increase with China's growing contacts with foreign countries and international organizations, especially after China's entry into the WTO. In order to give a quick response to some important and sensitive issues in the process of handling foreign-related matters, an effective and unified intellectual property management department is required.

## **2 To Increase the Objects of Intellectual Property Management and Enhance the Application Volume per Million People**

### **2.1 The increase of the quantity of intellectual property is needed for the development of economy**

Intellectual property is a legal right and also an im-

portant symbol which indicates the scientific and technological development level, and the economic strength of a state. It even symbolizes the overall national power and the stage of civilization of a country.

## 2.2 China is not an intellectual property power

By the end of 2000, the patent application amount of our country had reached 1,166,427<sup>[3]</sup>, the registered trademark 1,249,438<sup>[4]</sup>. Though the numbers themselves are impressive, it can hardly be said that China is an intellectual property power judged by the standard of annual patent application volume per million people. This standard is closely related with a country's scientific and technological level, economic development level and people's living standard and thus becomes one of the significant criteria for deciding whether a state is a developed country.

According to the statistics of the World Bank in 1998<sup>[5]</sup>, the per capita GNP of Japan was USD 32,380 and its patent application volume per million people amounted to 2837, ranking first in the world and being one of the richest countries. The per capita GNP of the U. S. was USD 29,340 and its patent application volume per million people amounted to 518, ranking eighth in the world and also being one of the richest countries. The per capita GNP of Russia was USD 2300 and its patent application volume per million people amounted to 113, ranking twenty-first in the world. However, in the case of China in 1998, the per capita GNP was USD 780 and patent application volume per million people only 11, which was far below the average number of patent application volume per million in the world (being 131), ranking forty-eighth. Thus it could be seen that compared with Japan, U. S. and Russia, China's patent application volume is so poor that we need to make great efforts and take effective measures to close the gap with the developed countries.

## 2.3 The measures for increasing intellectual property application number

First of all, the strategic goal of our intellectual property development shall be set up according to our national situations, the international intellectual property development trend and the long-term goal of realizing the four-modernization by 2050.

Secondly, the increase of intellectual property application number shall be made by establishing goals for different stages. The State Intellectual Property Office shall play a leading role in setting up the target of each

stage by taking the following factors into consideration: the overall objective of the four-modernization construction, the real levels of our scientific, technological and economic development and the previous statistics of intellectual property applications.

Thirdly, intellectual property management shall be closely combined with economic management, scientific and technological management and foreign trade management. Generally speaking, in order to increase quantity of intellectual property, intellectual property strategic study shall be closely combined with the national strategy for economic, scientific and technological development, the human resource input and financial input for the purpose of knowledge advancement should be increased by the state, and the guiding role of intellectual property be displayed in the readjustment of national economic structure and the development of new and high technology and the making of industry policies. More specifically speaking, intellectual property planning shall be incorporated into various state-leveled scientific and technological projects, especially the national technological innovation projects. During the process of technological innovation, those repetitive researches can be avoided by conducting intellectual property searching, predicting, analyzing and proving, by which the objectives of intellectual property can also be put forward. In the process of technology introduction, special attention shall be attached to intellectual property searching. Based on the digestion and absorption of the introduced technologies, the self-owned intellectual property shall be acquired through renovation.

Fourthly, the effective incentive mechanism shall be built up, hence the initiative of the people will be encouraged and thereafter displayed to create and apply for intellectual property. Intellectual property belongs to intellectual product, originally existing in human brains. To transform the intelligence in human brains into the form of intellectual property benefits the mankind, encouragement rather than compulsion is to be preferred. Therefore, the state and relevant governmental authorities need to establish a scientific incentive mechanism so that the intellectual property creators' spiritual and material rewards can be guaranteed by law and policy, which will in return promote the people's innovation efforts.

## 3 To Establish Scientific Operation Mechanism and Bring the Functions of Intellectual Property Management Subjects into Play

### **3.1 To perfect the market operation mechanism**

Since the intellectual property system is the product of market economy, its operation mechanism is also the mechanism of market operation, which includes the general market operation mechanism, i.e. competition mechanism, supply and demand mechanism, risk mechanism and also includes transfer mechanism and title-restricting mechanism characterized by intellectual property market. The most obvious feature of intellectual property trading market is that the commodity being traded is intellectual property and intellectual product protected by law. Both the intellectual property legal regime and economic legal regime play a protective and restrictive role in the operation of intellectual property market.

In the operation process of intellectual property market, special attention should be given to the following issues: the first is to market the allocation of interests, i.e. to let the service invention participate in the allocation and the proportion taken will be decided by the market; the second is to market the share ratio the intellectual property investment takes, i.e. to break through the traditional restrictive regulations on intellectual property investment and let the market decide the share proportion intellectual property investor takes in the form of agreement; the third is that the marketing of intellectual property must be operated through fair competition under market mechanism and thus the introduction of social capitals will facilitate the transformation of intellectual property into real productivity, thereby advancing the social and economic development.

### **3.2 Guidance, promotion and regulation exercised by the government**

First of all, the government should make laws, regulations or policies or amend them in a timely manner in order to accommodate the development of the market economy. Meanwhile, the relative stability and continuity of laws, regulations and policies is also needed in order to maintain the authority of laws and better bring the supervisory function of the government into play.

Secondly, the government supports the intellectual property development in certain fields or industries by means of planning and financing the intellectual property development. At the same time, it promotes intellectual property development through strengthening intellectual property infrastructure building, intellectual property information dissemination and application, and providing favorable service environment.

Thirdly, based on the national economic and social

development planning, the competent department shall cooperate with the other relevant departments and expand intellectual property work into various fields and incorporate it into those departments' regulations, thus guaranteeing the coordinated development of intellectual property management. Furthermore, the competent department shall supervise the enforcement of intellectual property laws and maintain the market order by penalizing any person in violation of the law.

### **3.3 Functions of the enterprise as a subject**

First of all, enterprises must value intellectual property work and regard it as the foundation of their existence and development and the most important weapon in winning market competition. On that basis, the planning and management measures of enterprise's intellectual property work are to be made and the management system improved. The intellectual property work should be incorporated into the research, the manufacturing process and the business operation. By way of various effective incentive mechanisms, products containing self-owned intellectual property are acquired.

Secondly, enterprises should manage and use their intellectual properties properly and provide good protection of them so that the value of the intellectual property rights will be maintained and increased. Enterprises will develop further through scientific intellectual property development strategy in terms of market occupation and profits made. Meanwhile, enterprises must refrain from infringing upon others' intellectual property in order to win in the market competition.

Thirdly, those capable enterprises should develop intellectual property pilot projects under the supervision of the state intellectual property authorities, including defining the status and role of intellectual property in the development of enterprises; establishing and improving the intellectual property regulations and working mechanism of the enterprises; strengthening the management and training and use of intellectual property; setting up feasible assessment system for the results of intellectual property application; enlarging interests allocation and rewards; forming effective incentive mechanism and self-owned intellectual property. The comprehensive management capability of enterprises will be improved through such pilot projects.

### **3.4 The supporting function of intellectual property service institutes**

First of all, for the purpose of guaranteeing the in-

Intellectual property service institutes to provide an impartial and independent service, they should obtain an independent status as a legal entity, practicing independently in the market and offering an impartial service to the operation of the intellectual property market.

Secondly, intellectual property service institutes should abide by the laws, regulations and policies, strengthen the awareness of professional ethics and improve the service quality in order to satisfy the requirements of the intellectual property development of our country.

Thirdly, to let the intellectual property service institutes play better roles, the competent authorities should exercise strict and effective supervision over them and, in the mean time, help them tackle all sorts of difficulties and encourage them to provide better services.

## **4 To Strengthen Intellectual Property Protection and Comprehensive Management Capability**

### **4.1 To improve intellectual property examination capability**

Intellectual property is a kind of legal right acquired through strict examination on an invention-creation in accordance with the legal procedures rather than by the mere act of invention-creation. Therefore, intellectual property examination is key to the acquisition of intellectual property right. In recent years, though the intellectual property examination period has been shortened and the quality improved, there still exists a gap compared with the developed countries. As a result, it is necessary for us to further carry out the reform of examination modes and recruit more examiners in order to guarantee the examination quality while shortening examination period.

### **4.2 To improve intellectual property management capability**

First of all, the comprehensive quality of intellectual property management personnel shall be enhanced and those professional management talents with good legal knowledge are in need.

Secondly, the establishment of scientific and strict management system is required. It includes employment system, examination system, award and punishment system, supervision system and liability system, etc.

Thirdly, intellectual property management shall be incorporated into economic management, scientific and

technological management, and foreign trade management so that the functions of intellectual property can be reflected in the state social and economic development.

### **4.3 To reinforce intellectual property enforcement**

Both judicial and administrative protections are available to enforce the intellectual property rights in China, which have Chinese characteristics and accommodate the current circumstances of our country. However, the problems of unjust administrative enforcement and lengthy judicial procedures often occur. As China has entered into the WTO and the protection of intellectual property is getting internationalized, our two-tier intellectual property protection system should gradually transform into judicial protection only in order to safeguard the impartiality of enforcement and better meet the requirement of China's social and economic development as well. Therefore, it is necessary to get prepared in terms of both human resources and system preparation, which are essential to enhance the intellectual property enforcement of our country.

### **4.4 To enhance intellectual property application**

Firstly, the current intellectual property situations and the development tendency must be given due consideration when the economic, scientific and technological development strategies are made; secondly, in order to survive and win the market competition, the industries and enterprises shall strengthen intellectual property strategic study and promote its application by means of bringing the initiative of the competent authorities in charge of each industry and that of enterprise into full play and making good use of intermediary service provided by intellectual property service institutes; thirdly, a batch of industries significantly affect the readjustment of national economic structure and manufacture structure. The new high-technology fields promoted by the state shall be selected to carry out the national intellectual property strategic promotion project.

## **5 To Strengthen Education and to Train Human Talents Specialized in Intellectual Property**

### **5.1 To strengthen education and enhance the overall educational level of our country**

According to the statistics provided by China Modernization Strategy Study Group, the domestic patent application number per million residents of a country is closely related to the popularization of higher education

and the literacy rate of adult population of the country. The more people with higher education and the higher literacy rate of the adult population, the higher figure of patent application per million people. The country is often found to be wealthier as well.

According to the statistics of the World Bank<sup>[6]</sup>, the amount of domestic patent application per million people of our country is far less than the world average standard, ranking forty-eighth in the world. That primarily results from the low educational level of China, with the university entry rate at only 6%, ranking ninety-second in the world and below the world average level. The popularization rate of secondary education is 70% and the literacy rate of adult population is 83%, ranking fifty-fifth and fifty-seventh respectively, both lower than the world average level.

Therefore, we need to pay more attention to education and increase the input in education so as to enhance the overall educational level and train professional talents who will eventually change the situation of intellectual property of our country.

## **5.2 To train human talents specialized in intellectual property**

Firstly, it is necessary to make intellectual property a compulsory course in the tertiary institutions so that all college graduates will have had basic intellectual property education and thereafter may become intellectual property creators, users or protectors.

Secondly, it is necessary to establish intellectual property as a discipline of undergraduate study or a second-degree program in order to train human talents specialized in intellectual property. It is suggested that those universities with conditions allowed should set up intellectual property department or college so as to educate undergraduates or second-degree students in the discipline of intellectual property.

Thirdly, master degree program or PhD degree program in intellectual property should be established in those top universities to educate high-quality intellectual property teaching and research staff.

Fourthly, thousands of intellectual property legal staff can be trained through adult education and various professional training programs.

In sum, in order to meet the requirements of China's social and economic development and the realiza-

tion of the four-modernization, the professionals specialized in intellectual property at different levels are needed through training by various means of university education, long-distance education and professional training program, etc.

## **5.3 To enhance the intellectual property awareness of the nation as a whole by various means**

The human beings are the infinite source of intellectual property. Generally speaking, various means can be used to enhance the intellectual property awareness of the nation as a whole and further increase the national intellectual property level. As for the leaders at different levels, the promotion of the importance of intellectual property is needed to make them aware of the significance of intellectual property in terms of economic, scientific and technological development and international competition as well. As for enterprises, the emphasis should be put on the promotion of the essential role of intellectual property in maintaining and promoting technological innovation and advancement, and of the exercise of good management of intellectual property rights owned by enterprises while respecting others'. As for the public, the introduction of intellectual property related laws and policies should be given priority so that they can understand that their inventions and creations will be legally protected once the relevant legal procedures are fulfilled. By bringing the public's invention-creation initiative into full play and enhancing the intellectual property awareness of the nation as a whole, we will be able to significantly develop intellectual property in China.

## **References**

- [1] China Modernization Report, Beijing: Peking University Press, 2002, 12.
- [2] Shen R. G. China Intellectual Property Annual. Beijing: Intellectual Property Press, 5.
- [3] China Intellectual Property Annual, Beijing: Intellectual Property Press, 191.
- [4] China Intellectual Property Annual, Beijing: Intellectual Property Press, 230.
- [5] China Modernization Report, Beijing: Peking University Press, 2002, 168, 188.
- [6] China Modernization Report, Beijing: Peking University Press, 2002, 168, 170, 172.