

Research On Collaborative Protection Mechanism of Intellectual Property

Rights in Big Data Environment

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Abstract: Under the background of "Internet +" and big data, the collaborative protection of intellectual property rights has important economic value and practical significance for the country and the government. In this paper, we put forward the coordinated protection measures of intellectual property rights from the two aspects of national overall micro interests and macro interests. At the micro level, it is required to strengthen the awareness of intellectual property rights of the social interest subjects, mobilize the enthusiasm of personnel, enhance the development of intellectual property rights, enhance the operation ability and improve the level of intellectual property protection. At the macro level, it is proposed to improve the intellectual property system, coordinate the development of regional intellectual property rights, build a diversified service platform, support the main body to participate in the construction of intellectual property rights and strengthen international cooperation and so on.

Keywords: intellectual property rights, collaborative protection, diversified service platform.

1. INTRODUCTION

As an enterprise or individual in the wave of mass entrepreneurship and innovation, how to make good use of intellectual property, protect their rights and get better development has become an urgent topic under the background of "Internet +" and big data. Since the 18th people's Congress of the party, the Party Central Committee and the State Council have attached great importance to the work of intellectual property rights and issued a series of important documents, which put forward new and higher requirements and made new arrangements for the protection of intellectual property rights[1].

2. INTELLECTUAL PROPERTY AND OBJECT DEFINITION

As a kind of legal system, intellectual property has been widely accepted. The definition of intellectual property includes not only general type generalization methods, but also enumeration[2]. The objects of intellectual property rights include literary, artistic and scientific works, performers, sound recorders and broadcasters' performances, inventions, scientific discoveries, industrial designs,

trademarks, service marks, business names and commodity marks, anti-unfair competition and other rights arising from intellectual labor in the field of industry, science, literature or art, the objects of industrial property rights protection include patents, utility models Type, design, trademark, service mark, manufacturer's name, goods source mark, name of origin and prevention of unfair competition etc. The object of intellectual property rights that is related to trade aspects intellectual property rights is defined as: copyright, related rights, trademark, geographical indication, industrial design, patent, appearance design of integrated circuit and protection of undisclosed information[3]. However, Chinese scholars believe that the objects of intellectual property include copyright, patent, appearance design of industrial products, layout design of integrated circuit, cultivator of new plant species, trademark and various rights to prevent unfair competition.

The definition of the intellectual property object directly or indirectly affects the cooperative protection strategy of intellectual property. First of all, the strategy of intellectual property protection should conform to the current methods and international treaties. This is determined by the mode of authorized confirmation of intellectual property rights. Only intellectual achievements within the scope of legal protection can be protected by methods if they are identified by commercial signs, which is the premise of intellectual property protection. Second, from the content of international treaties and intellectual property rights, it is mainly divided into the fields of literature, art, science and industry and commerce. Although these two areas are gradually converging, we still need to formulate intellectual property protection strategies according to specific industries. For example, cultural and creative industries should take copyright protection system as the core, while high-tech industries should take patent protection as the core. Third, due to the different technology levels of various industries and enterprises, the intellectual property protection strategies of the company should also be different. In industries or enterprises with high technology level, we should encourage more investment in research and development, pay attention to the creation and protection of independent intellectual property rights, and in industries or enterprises with low technology level, we should encourage technology imitation within the scope permitted by methods, so as to promote the rapid development of technology.

3. RESEARCH STATUS AT HOME AND ABROAD

The coordinated protection of intellectual property rights has risen to the level of national strategic management. It began with the United States government's policy of "adopting independent policies to improve the competitiveness of the country and inspire the spirit of enterprises" in 1979. Then, a series of formal legal provisions were adopted to determine the strategic policy of national intellectual property collaborative protection. Intellectual property plays an important role in the scientific and technological progress and economic development of the United States. The collaborative protection of intellectual property rights has been widely concerned by academic circles and government departments of various countries. Rich achievements have been made in the meaning, mechanism, evaluation and impact effect of intellectual property management.

Professor Takahashi[4], a Japanese scholar, explained the meaning of the collaborative protection of intellectual property from the perspective of patent earlier. He believed that patent strategy is a strategic patent activity based on the enterprise policy, which carries out strategic attack and defense,

and gives full play to the maximization effect of patent function (Takahashi, 1990). On this basis, foreign scholars based on different research fields and purposes, from the perspective of the main body of implementing intellectual property strategy, implementation process (intellectual property development, protection, operation and management), composition of elements of collaborative protection system (technical elements, information elements, intellectual assets, etc.), and function (technological innovation, enterprise benefits, national economic development, etc.) and other perspectives and levels have defined the concept of collaborative protection of intellectual property in a rich and diversified way further expand the theoretical research vein of intellectual property coordinated protection. Jaypil[5] studied the formation model of Patent Alliance under the choice of patent litigation. Peiko and Sadao[6] examined the motivation of the formation of Patent Alliance. Steffen[7] studied the influence of the internal structure of Patent Alliance on the stability of the alliance. Zhang[8] gave the operation mechanism of alliance cooperation in intellectual property based on Ontology. Some scholars also discussed the competitive mechanism of patent alliance, and elaborated the competitive mechanism of Patent Alliance in the market from the reduction of transaction cost, the degree of patent complementarity and welfare effect. Based on the summary of foreign scholars on the research of collaborative protection of intellectual property, the research on the evaluation and methods of collaborative protection of intellectual property mainly includes two aspects: the first is based on the overall perspective of intellectual property, starting from the overall perspective of enterprise, industry, region or national intellectual property, through the analysis of intellectual property pricing mode and value, and the overall performance of intellectual property and competitiveness to evaluate intellectual property. The second aspect is to evaluate the intellectual property rights of enterprises or industries from the perspective of patent quality and patent value. Xiaoqing Feng[9], a domestic scholar, directly defined the collaborative protection of intellectual property as the comprehensive management of intellectual property development, protection and operation. In contrast, most domestic scholars mainly define the intellectual property management from the perspective of strategy. Handong Wu[10] defined the intellectual property protection strategy from the enterprise level as the strategy for enterprises to seek the maximum economic effect based on the means of intellectual property protection in order to form and maintain market competitive advantage. Guohua Tang[11] established the basis of the intellectual property strategic framework. It is defined as the strategic management based on intellectual property created and maintained through the strategic management of intellectual property. In addition, Jilin Wei[12], Zhihong Yu[13] and other scholars have defined patent strategy, whose core connotation mainly describes the competitive advantage in the market through patent technology.

In recent years, domestic scholars pay more and more attention to the research of intellectual property collaborative protection system, most of which focus on system optimization, operation performance and collaborative degree measurement. For example, the optimization strategy of intellectual property management system is given from the aspects of system formation, system optimization and system development and evolution. The realization mechanism of intellectual property management system collaboration is expounded from the system operation process of collaborative opportunity identification, evaluation, dynamic decision-making and regulation control. The intellectual property management system is evaluated from the collaborative management process of intellectual property

creation, operation, protection and management. Through reading the relevant literature of intellectual property management and summarizing the existing research progress, it is found that the research on the meaning of intellectual property management, the internal mechanism of intellectual property management, the related evaluation, the impact effect and the Countermeasures of intellectual property management has been quite significant, which provides a reference for how to promote the development of intellectual property in China and implement the innovation driven strategy. The research results on the intellectual property management system and the coordination among the internal systems have also begun to take shape, which provides a reference for how to further strengthen the intellectual property ability and activate the regional innovation vitality, and lays the foundation for the follow-up in-depth related research. However, the existing research on the internal structure and collaborative development of intellectual property management system needs to be further enriched and improved, especially the research on the mechanism, subject behavior basis, process mechanism and multi-level perspective of collaborative development of intellectual property protection center based on system theory and synergy theory is a new field, and relevant research needs to be further expand and deepen.

4. INTELLECTUAL PROPERTY PROTECTION

One belt, one road, the great transformation of development space and mode of new and old energy conversion and so forth, and new characteristics appear in the field of intellectual property right. In order to thoroughly implement the decision-making and deployment of the CPC Central Committee and the State Council on the implementation of strict intellectual property protection, further deepen the assistance and rapid protection of intellectual property rights, practically improve the protection system of industrial intellectual property rights, and promote the adjustment, transformation and upgrading of industrial structure, it is necessary to speed up the establishment of the rapid collaborative protection mechanism of intellectual property protection center, so as to ensure the collaborative protection of intellectual property rights of Chinese enterprises. In practice, it puts forward some ways to learn from and learn from, such as actively seeking the intellectual property protection of intellectual achievements, expanding the application field of intellectual achievements, and actively increasing the value of trademark rights during the duration of patent. From the micro perspective of social interest subjects, the main measures are as follows.

- a) Strengthen the awareness of intellectual property rights of various social interest subjects.
- b) Improve the enthusiasm of scientific and technological innovation personnel and intellectual property construction personnel.
- c) Strengthen the development of intellectual property rights of enterprises, scientific research institutes and other main bodies.
- d) Improve the operation ability of intellectual property rights of enterprises and other stakeholders.
- e) Improve the level of intellectual property protection of government, enterprises and other main bodies.

From the macro perspective of the whole country, the main measures taken include.

- a) To improve the system of laws, regulations and policies on intellectual property in China.

- b) Optimizing regional economic structure and coordinating the development of regional intellectual property.
- c) Building a diversified service platform for scientific and technological innovation and intellectual property development.
- d) We will vigorously support the development of intellectual property rights in high-tech enterprises and research institutes.
- e) Pay attention to and strengthen international cooperation in intellectual property management.

As we all know, the performance characteristics of big data is massive information, which can be explored into the object of copyright law protection. Data analysis, storage and related results can be applied to copyright protection mode, and relevant protection measures and methods can be formulated for each stage of big data process. That protecting the copyright applicable to big data, it includes the analysis and processing of database copyright and big data. The object of database copyright is mainly the compilation works formed by the arrangement and compilation of big data. This kind of works embodies the originality of the author, as well as the intellectual labor paid in the process of selecting and arranging the system and structure of the database. At the beginning of the copyright law in China, the purpose of legislation is to protect the author's copyright and the rights and interests related to copyright, encourage the creation and dissemination of works, and promote the development and prosperity of cultural and scientific undertakings. According to the value orientation of intellectual property protection and the characteristics of big data in China, for big data, we should not only restrict but also open up, and over protect, it will form the monopoly of big data owners on data itself, possess data and share data, and we should maintain a balance, so as to promote the healthy development of the whole data industry.

The important function and purpose of modern intellectual property law system is to promote social culture and scientific and technological progress. If there is not patent system, the inventor's invention can be freely copied by other people. In the market, the number of related products increases, and the price of invention products will converge to marginal cost. This situation is conducive to elimination consumers buy products at a lower price. But the price of the inventor's products can not be higher than that of other products from the perspective of the inventor. It will be difficult to recover the cost of investment and R & D. In the long run, it will damage the initiative of inventors and hinder the cultural and technological progress of the society. Therefore, the establishment of the collaborative protection mechanism of intellectual property protection center can make the interests of the obligee remain stable for a long time, which can not only realize the incentive function of intellectual property law, but also help to enhance the innovation power of enterprises. Secondly, with the development of economy, more and more products of the same kind are produced in the market, and the value of discernible business logo is becoming more and more prominent. In order to protect the monopoly right of using business logo and restrict the competition, businessmen continue to promote the protection of trademark, and thus establish the mode of trademark protection by fraud suit. In the legal system of intellectual property, the fragmentation features are shown in various aspects when the branch of intellectual property determines the object of protection. It only sets out from its own position and does not take into account the protection objects of other laws, such as the characteristics of the combination of practicality and artistry of practical works of art, so that it can not only obtain

the protection of copyright law, but also the protection of the exclusive right of design. Therefore, the establishment of a sound collaborative protection mechanism of the intellectual property protection center is conducive to the systematization of the existing intellectual property law and the enhancement of the understanding of the intellectual property law, so as to arouse the understanding of scholars, legislators and judicial circles on the overall system of intellectual property, and make the intellectual property system become the real commander and executor of intellectual property practice.

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