

# LEGAL PROTECTION OF INTELLECTUAL PROPERTY RIGHTS FOR INSURANCE PRODUCTS

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**Abstract:** China's insurance industry is in a period of rapid development, and market competition is becoming increasingly fierce. For the insurance industry in the era of knowledge economy, The research and development of advanced insurance products has become a powerful weapon in market competition. However, as innovative insurance products with high technological content, they have not received due protection from intellectual property laws, and the market research and development incentive mechanism is not yet complete. This article takes the current situation of intellectual property protection of insurance products in China as a starting point, introduces and evaluates the current situation of intellectual property protection of insurance products in major developed countries and regions, especially the situation related to business method patents, and elaborates on the role of intellectual property protection in insurance products in intellectual property protection. Due position in the system, it is proposed to strengthen the protection of intellectual property rights of China's insurance products through measures such as encouraging innovation, protecting administrative means, and establishing business method patents.

**Keywords:** Insurance products; Intangible property; Intellectual property; Business methods; Patents

## 1. ECONOMIC IMPLICATIONS OF INSURANCE PRODUCT INNOVATION

In recent years, The development of China's insurance industry has entered the fast lane. Market entities have increased rapidly, and market competition has become increasingly fierce and complex. Through products or Service innovation occupies a dominant position in the market and has become an important development strategy for various insurance companies. Insurance products are created through intellectual labor and should be legally When classified as knowledge products, this article examines this kind of business that arises from intellectual labor. legal protection of business methods.

The protection of business methods by patent law is not new; it first appeared at 1778 Britain, John Knox due to design One to one 0 to 80 age Obtained a business method patent for personal insurance products. But then the business method Patents are not generally recognized by the laws of various countries because many countries believe that they Does not meet patent recognition standards. Currently, obtaining a business method patent depends on Due to their scope of application and manner of application, most business method patent applications are related to planning. Related to computer software, protection is obtained in the name of the application of the relevant computer program. It is generally believed that general methods of business operations are not subject to intellectual property protection. However, the innovation of insurance products involves professional fields and is novel and unique. The laws of various countries have different attitudes on whether to grant intellectual property protection. The second part of this article It also elaborates on the necessity of insurance product innovation and intellectual property protection. third This section analyzes the legislation and its impact in some countries and regions. The fourth part analyzes the current situation of intellectual property protection of insurance products in China. Finally, in view of the problems encountered in the intellectual property protection of insurance products in China, it is proposed to strengthen the awareness of intellectual property protection, Administrative protection of intellectual property rights and establishment of business method patents and other countermeasures.

Traditional Economic Theory (Joseph Schumpeter, 1950) believes that the influence ring gold The factors that integrate innovation mainly include the following four aspects: First, the basic foundation for the operation of the industry Needed, insurance companies' routine work such as information collection and analysis includes innovation content; second, the macroeconomic situation, the macroeconomic situation is complex and changeable, such as Fluctuations in prices, changes in interest rates and exchange rates will create certain risks and become a New incentive factors; third, the legal environment and supervision, supervision is a double-edged sword, and the severe regulatory situation prompts market entities to take roundabout methods or avoid supervision; fourth, tax factors, the tax system imposes taxes on different incomes or assets Collection and administration are different, being levied High-tax entities will reduce their tax burden through financial innovation[1]. It is not difficult to see that, through Obtaining exclusive rights through patents to stimulate financial innovation is not included because in Traditionally, people have not recognized the importance of intellectual property protection in financial innovation. Before the 1980s, financial innovation patents were very rare. By the 1990s, Its importance has been highlighted and attracted more and more attention.

For-profit enterprises and individuals are always pursuing novel and high-quality products and service processes in order to reduce production costs, meet customer needs and gain profits. Take more profits. Innovation is extremely important in any field of the contemporary economy. important, although traditional microeconomics focuses on static resource allocation and economic efficiency, but it is a general fact that an economy is always driven by an active

driven by factors, including innovation[1] The role of the financial sector, including insurance, in the economy The central position and importance to economic growth make financial innovation even more important.

Insurance products are the basic elements of insurance industry operations. It is the insurance company that provides customers with service provider. Insurance companies, like factories that produce tangible products, use Sell your own products for profit. Manufacturers produce novel and marketable products The product, can greatly improve profitability, and insurance companies can develop original products that meet the needs of the market Insurance products or services that are in demand in the market will be able to stand out in the fierce market competition. A certain leading and advantageous position, tap potential insurance needs, and provide insurance consumers with Risk management offers more options. As with the innovative development of tangible products, insurance products Product development is also a complex process that requires in-depth investigation and research to understand Market demand and forecast product market prospects. The development of insurance products requires investment A large amount of manpower, material and financial resources, a large part of the cost is spent on data collection and Analysis, including accident and loss information and rate calculations based on this, to To deal with the information asymmetry problem commonly encountered in the insurance market.

As intangible property, the value of insurance products is reflected in the information contained in the products. Information has the attributes of a public product, that is, it is non-exclusive and non-competitive. In the absence of necessary legal protection, product ideas will be quickly copied by competitors. Because when faced with public goods that many people can enjoy for free, rational economic agents hope to profit from " free riding ". In a competitive market, after rivals obtain an innovative product, they will price it based only on the marginal cost of the product itself, thus depriving the original developer of the possibility of recovering investment from the innovation. This will inevitably dampen the enthusiasm for insurance product innovation and hinder the research and development of insurance products. Not only that, In the development of new insurance products, people other than the original creators may also gain a late-mover advantage. On the one hand, they save R&D costs by copying R&D products; on the other hand, Track and observe the market response of the product, and improve the deficiencies to surpass the original developers. When this " latecomer advantage " is very obvious, Product development will be delayed[2].

Knowledge products are different from general public goods and also different from general private goods. thing, It is a special form of property rights that can easily be exploited without legal protection. Copy or imitate. As intellectual property objects, spiritual products are a kind of intangible property. property, its scope of protection cannot be determined by itself, and the relevant laws are required to provide Special provisions shall be made[3]. Tangible products themselves are protected by property law and other laws. Intellectual products require the protection of intellectual property laws. Main laws for intellectual property protection Forms include patent rights, copyrights, and trademark rights, There are also supplements such as trade secrets means of protection. In some countries and regions with relatively developed insurance industries, insurance has begun Intellectual property rights are protected through specialized business method patents.

## **2. PROTECTION OF INTELLECTUAL PROPERTY RIGHTS OF FOREIGN INSURANCE PRODUCTS**

The patentability of business methods is a controversial issue, with different countries taking different modes. In the United States, as long as the approach is practical, concrete, and produces Tangible results can be patented. In Japan, the Patent Office (JPO) only Patents are granted for business methods of interconnecting hardware systems. The European Patent Office (EPO) will The law excludes objects of patent protection unless they are part of a technical invention.

### **2.1 United States**

The U. S. Constitution will " Grant certain credits to authors and inventors of specific works and inventions " The exclusive right to promote the progress of science and art " was granted to Congress in 1790. The U. S. Congress enacted the Patent Act in 1790. Innovation protection from insurance products in the United States From the perspective of development, it has also experienced a process from imperfection to relative perfection. Experienced from searching for protection basis in intellectual property law to directly stipulating business methods The process of patent protection. 1998 Court of Appeals for the Federal Circuit Year State Street Bank & The decision in Trust Co. v. Signature Financial Group, Inc. will be discussed Business methods Method) protected as a patent, the decision shocked The patent industry is also a boost to the insurance industry and to companies that ignore the existence of patents. It's a disaster. All companies must be fully prepared to cope with this change: 1. On the one hand, they need to understand the situation of patents that have been approved, and on the other hand, they need to prepare for their own innovations. apply for patent [4]. In AT&T v. In the Excel Communications, Inc. case, the United The judges of the State Circuit Court of Appeals pointed out directly: Entity conversion is not grantable Absolutely necessary conditions for the subject matter of patent rights. The only way to determine patentability is to make sure Determine whether the invention produces a practical, concrete and practical result. American law The Chinese Academy of Sciences and the Patent Office have relatively greater freedom in applying for business method patents, but year 2010 supreme court Bilski v. Kappos The judgment in one case was that because the application matter was drawn The patent office has recently required that business method patents must have some kind of inventive step in the field of business methods or software.

## 2. 2 Japan

Japan is relatively conservative on the issue of business method patentability. As codified French law, for many countries, the scope of patent protection is expressly stipulated by law. Japanese Patent Law Article 2 The invention referred to in this article refers to "a certain high degree of technology that takes advantage of the laws of nature. "technical creation ". However, with the development of information technology and the influence of American law, in 1998 United States State Street Bank The judgment considers business methods as professional After patent protection, Japan began to relax on the issue of business method patents. At the end of 1999 In the examination guidelines for patent applications formulated, business methods are explicitly included in the available Patented subject matter. However, the review of business method patent applications in Japan is much more rigorous than in the United States. The Patent and Trademark Office is much stricter[5]. The Japan Patent Office limits business method patents to To be executed through computer software or hardware, or to obtain technical effects.

## 2. 3 European Union

Different from the initial vague attitude of the USPTO and JPO, The European Patent Office's initial stance on the patentability of business methods was very clear. The European Patent Treaty does not provide a clear definition of patents or inventions, but lists the circumstances in which patents are not granted. Article 1 of the Treaty Article 52 Paragraph 2 stipulates that performing intellectual acts, Plans, rules and methods for playing sports, games or conducting business, as well as computer programs, are not patentable inventions. Therefore, business methods are excluded from the scope of patentable subject matter. However, Article 1 of the above-mentioned treaty Paragraph 3 further provides that, The inventions that are not patentable under paragraph 2 are limited to those methods or acts. itself, which means that the patentability of business methods is not completely denied. The key depends on How to explain this one. In recent years, as the patentability of computer programs has been recognized However, the European Patent Office's policy has been relaxed in some cases. The overall examination standard is to require the application matter to have technical characteristics, but it has not issued any formal statement or Guidelines that state clearly and accurately its policies [5].

In short, The U. S. Federal Circuit has defined practical, concrete, and tangible effects as Criteria for measuring whether a patent can be granted. As the country with the most developed insurance industry in the world, the United States Premium income has ranked first for a long time, and it is also the source of insurance innovation. cradle. Insurance companies obtain protection for their products or services through intellectual property laws. While selling one's own products exclusively is a huge step forward for the insurance industry, this trend Behind the scenes is increasingly fierce market competition, and intellectual property protection products and services have become An important means to maintain market share [6]. The attitude of the Japan Intellectual Property Office compared to the United States Preferring to be conservative. The European Patent Office's approach is to explicitly exclude business methods from patents. However, if the application has technical characteristics, is related to the technical field or solves technical problem, There is a possibility of being granted a patent.

## 3. THE THEORY AND PRACTICE OF INTELLECTUAL PROPERTY PROTECTION FOR INSURANCE PRODUCTS IN CHINA

The objects of intellectual property protection are mainly the results of intellectual labor, and insurance innovation products Products are the result of people's intellectual work in the insurance field. Theoretical circles generally agree that Insurance products are intellectual property rights and should be protected by law. Insurance from our country Judging from the current status of intellectual property protection in the industry, there are three main phenomena: First, protection Insurance companies have very few patent applications and authorizations; second, insurance companies applying for patents in the institution, Local insurance companies account for a small proportion; third, insurance institutions that apply for patents, there is a huge gap in the number of applications between local insurance companies and foreign insurance companies [7].

The low enthusiasm of insurance companies in China to apply for patents for insurance products is related to the current Patent legislation and policy are closely related. Regarding business method patents, my country is still in the " The state of "blank legislation and pale enforcement ", In practice, the patent authority treats commercial parties The attitude of French patents is not positive. For example, Citibank's business methods expert that has attracted much attention In the favorable incident, the " electronic money system " The classification number is 061 7/00, the description of this classification number is " Especially suitable for digital meters with specific functions computing equipment or data processing equipment or data processing methods ". It can be seen from this that we have already Applications for these essentially business methods are based on the technology used to implement them. treated with techniques, Except for Citibank's application which was authorized, the results of other applications All are considered withdrawn or undecided. Not only that, there are many other business methods French patents also ended up being deemed withdrawn [8].

Regarding the intellectual property attributes of insurance products and the applicable laws Domestic scholars do not have unified opinions on what specific system should be used for protection. Some scholars believe The protection of insurance products under copyright law or trademark law is insufficient; Insurance products in nature Belongs to patent, Should be protected by patent law[9]; Some scholars believe that the new types of insurance are not exclusively The

scope of protection of Lifa[10]; Other scholars believe that intellectual property rights should be protected, including works Protection of rights, patents, trademarks and trade secrets; [11]learn more The author believes that insurance products fall within the protection scope of business method patents and should formulate appropriate Business method patent policy based on China's national conditions.

Regarding the issue of patentability of business methods, China currently prefers Europe's " technology " property " standard. " Patent Law " Article 2 Articles 2 Clause stipulations, An invention refers to a product or method method, or new technical solutions proposed by its improvements. 201 4 " Patent Examination Guidelines " released in It is also clearly stipulated that " No technical means were used to solve technical problems, Solutions to obtain technical effects that conform to the laws of nature are not the subject of utility model patent protection. " This provision also applies to business method patents. China's patent law also explicitly excludes the patent eligibility of rules and methods of intellectual activities. Therefore, whether a business method meets the conditions for patent application is measured by whether the application has technical behavioral standards, that is, whether the business method addresses technical problems, adopts technical means, and obtains technical results. Under current legal regulations, it is still difficult to apply for a business method patent.

Historically, protection of business methods can be protected by intellectual property law. protection of various rights in Often involves a combination of copyrights, patent rights, trademark rights and other rights[6, 13]. Overall Look, the advantages and disadvantages of obtaining protection through various rights in intellectual property are as follows:

First, the advantages and disadvantages of protection through copyright law. The rights boundary is weak and protection can be obtained at a low cost; filed due to infringement The litigation is more efficient, the cost of litigation is lower, and the cycle is shorter; it is easier to obtain a cease and desist judicial injunction; although the compensation obtained as a result of legal proceedings is not high, it is enough to compensate for the loss. The disadvantage is that there is insufficient protection through copyright law [14].

Second, the infringement compensation obtained through patent law protection is relatively strong, but There are also disadvantages. First, the application fee for patent rights is more expensive than other protection methods. Expensive; secondly, patents are enforceable only after they are issued; thirdly, patented Protection costs are higher. Patents have the greatest impact on the insurance market. One company The company's products are patented and other companies will be excluded during a patent protection period. In addition to applying for patented products, or by signing an agreement to pay a considerable amount of patent licenses If the same product is sold for a fee, the court will never award damages. If you are soft-hearted, a judicial ban will also remove all related products of competitors from the shelves[12]. We know from the experience of other industries that patents can enable the main competitors in the market to develop birth order changes, Many companies have been hit hard by patent infringement damages.

Third, the advantages and disadvantages of trademark law protection for insurance products. The right to use is granted from the date of successful application. It protects goods and services that are obviously different in use. Marks to avoid confusion, protected by trademark law, within a reasonable period of litigation be able to receive reasonable compensation [15]. Disadvantages are marked by significantly different products Similar insurance products are difficult to protect.

Fourth, the advantages and disadvantages of obtaining protection through trade secrets. Trade secrets are available to IP victims. The advantage of protecting insurance products is that it does not There are application registration fees involved, and protection requests, if supported, are open-ended. but Litigation costs are high and the period is long, and compensation, litigation fees, interest losses, etc. are not can all be compensated. Although there is some uncertainty about the scope of protection of this pathway sex, but still has a place. Under certain circumstances, it may be a protective insurance property the only measure available.

When China's business method patents are not yet patentable, insurance products can seek protection from other systems in intellectual property law. in business methods Before intellectual property rights were successfully protected, countries such as the United States also used ordinary intellectual property rights There are several ways to obtain protection, which not only have a solid theoretical foundation, but also are practical All can be used, These methods can achieve results within a certain range.

#### **4. STRATEGIES FOR INTELLECTUAL PROPERTY PROTECTION OF INSURANCE PRODUCTS IN CHINA**

In recent years, China's insurance industry has made great progress. 201 Achieve premium income nationwide in 5 years \$ 370 billion. In just a few years, The market size jumped from sixth to third in the world. This is due to the sustained and rapid economic growth in the past few years. The continued release of huge insurance demand is also inseparable from comprehensively deepening reforms [16]. As economic development enters the new normal, the economic growth rate shifts from high-speed growth to medium-high-speed growth, the economic structure continues to be optimized and upgraded, and economic development shifts from factor-driven and investment -driven to innovation-driven. This has brought new opportunities and challenges to the insurance industry. The insurance industry must proactively adapt to the new normal in order to be more effective. Corruption Under the new situation, innovation in insurance products and services is not only an effective way for the sustainable development of insurance companies, but also the future development trend of the entire country's insurance industry. To this end, it is necessary to accelerate the construction of systems and mechanisms that encourage innovation, realize innovation in the intellectual property management system and the legal system itself, and create a good environment for insurance innovation.

#### **4. 1 Enhance Awareness of Intellectual Property Protection and Encourage Domestic Insurance Companies to Industry Product Innovation**

Under normal circumstances, the main deficiencies in intellectual property protection in developing countries are There are two reasons. One is the protection of intangible property in some developing countries. It is still a new thing and lacks awareness of change due to the influence of traditional culture; 2. It is a high-tech product introduced from a strictly protected developed country, which will have a negative impact on the country in the short term. Adverse effects on industry and commerce. blackmail These two aspects are also present to varying degrees in our country. exists, therefore, to eliminate misunderstandings, Effectively enhance awareness of intellectual property protection and understand to the positive role that intellectual property protection has had on China's economic development.

First, the current technological level of Western developed countries is higher than that of our country. but not Different countries have different technical needs, and products or technologies suitable for developed countries may not be the same. It must be suitable for our country. Therefore, innovative inventors should be provided with sufficient intellectual property rights Guarantee and encourage inventions and creations, commercialize inventions and creations and benefit from sales, This not only makes it easier for consumers to identify their favorite products, but also helps the products open up foreign markets.

Second, a good intellectual property legal protection system can attract foreign investment and create Create new job opportunities, facilitate technology transfer, and improve the country's industry technology level, To increase taxes.

Third, an effectively operating intellectual property system can solve some economic and social problems. Problems, such as counterfeit and shoddy goods appearing if the intellectual property system is imperfect, ensure that Undercover insurance policies that emerged due to insufficient insurance innovation, companies and individuals committed to innovation The inability to obtain the benefits brought by innovative work and the damage caused by infringement to innovation make the country Countries have to pay higher prices to purchase foreign items and technologies.

#### **4. 2 Use Various Effective Means to Strengthen Insurance Product Innovation Administrative Protection**

With the rapid development of my country's economy and society, Strengthening intellectual property protection, improving independent innovation capabilities, and accelerating the transformation of economic development methods have become the needs of implementing the innovation-driven development strategy and the national intellectual property development strategy. In China's intellectual property system, The role of administrative protection cannot be ignored. From a historical perspective, it is an institutional choice that is accompanied by the development of the intellectual property system and suitable for China's national conditions. Because the intellectual property system is an imported product, it has been government-led and established from the beginning. From the perspective of resolving disputes, administrative channels are better than judicial channels. Faster and more efficient, The procedures and rules for providing evidence are relatively simple [17, 18]. Considering the characteristics of intellectual property, Intellectual property rights are related to public interests and social and economic development, and require the intervention of state public power to coordinate and balance the relationship between the legitimate rights and interests of right holders and social and public interests. Administrative protection has strong professionalism and flexibility, and facilitates preliminary preparation for legislation. Insurance product innovation has not yet been included in the protection of intellectual property laws. Policies and regulations and strengthening the administrative level of special protection for new products are the key to protecting new products. An effective means of product development is an important part of intellectual property protection, and it is also a relatively feasible way at present. However, administrative protection also has negative effects, and a reasonable period of protection should be determined. While conducive to promoting the development of individual enterprises, especially large enterprises, we should also pay attention to the development of the entire industry and small and medium-sized enterprises to avoid Protecting individual interests and adversely affecting the technological progress of the entire society. It should be noted The adoption of administrative protection measures may also increase the price of new insurance products. issues that infringe on consumer interests. Administrative protection should also overcome the shortcomings of local and departmental protectionism. In short, although administrative protection is effective, administrative Agencies must also be rigorous and scientific when taking relevant measures and respect market laws.

#### **4. 3 Improve Intellectual Property Legislation and Introduce Business Method Patents in a Timely Manner**

The main purpose of the patent system is to protect inventions and creations and promote the progress and development of science and technology. However, there is no consensus yet on whether to grant patent protection to business methods. The opinions and attitudes of the parties vary greatly. Those who do not support business method patents believe that mutual imitation and competition are the driving force of economic development. Including business methods in the scope of patents will It hinders scientific and technological progress and technological innovation and wastes precious social resources. Corruption in business The business method patents developed in the United States as an industrial society are not only related to the United States' awareness of the legal rights and obligations of intellectual property and its strategies to protect intellectual property, but also besides, Its patent system and the status of the lawyer industry cannot be ignored. And from Year 2008 1 United States in October Bilski Judging from the judgment of the case, U. S. Court of Appeals for the Federal Circuit 's requirements for business method patents State Street Bank The case is quite different and imposes stricter patent standards. blackmail

The controversy surrounding business method patents continues. From a development perspective, Even the patent laws of developed countries are constantly being reformed. For example, as a big country in science and technology, In the United States, the reform of patent law in the past few decades has been strengthened in three aspects: First, the scope of objects protected by patents has been expanded, and second, patent holders have The third is the expansion of rights, and the third is the extension of the term of patent protection. Falsification of business method patents To go and to stay, The United States chose the latter. Business method patents cover a wide range of wide, may become a new international management model in the future, its impact will have global local, systemic and global characteristics. Internet financial activities are business methods A key area for patent application, which is directly related to the future development strategy of online finance. The commanding heights will have a great impact on the international competitiveness of applying companies and institutions. ring. With the patenting of methods— Patent standardization - the development trend of standard licensing Due to this situation, it is impossible for Chinese financial institutions to circumvent the challenge of business method patent issues.

Nowadays, our country's insurance industry is developing rapidly. It is no longer what it used to be. The huge insurance industry The insurance market and potential insurance demand with national characteristics call for insurance products and investment Capital contracts, underwriting technology, administrative management, actuarial services, marketing, computer systems and a series of innovations. Strengthening business methods in the context of the knowledge economy and information age The construction of the patent system is a new direction for international intellectual property protection. my country should actively Extremely explore insurance product business method patent policies and improve relevant laws.

## COMPETING INTERESTS

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## REFERENCES

- [1] W. Scott Frame, Lawrence J. White. Empirical Studies of Financial Innovation: Lots of Talk, Little Action. *Journal of Economic Literature*, Vol. 42. No. 1(Mar. 2004), p120-121.
- [2] Sun Qixiang, Zheng Wei. *China's insurance industry from the perspective of economic and social development— Evaluation, Problems and Prospects*. Beijing: Economic Science Press, 2007: 116.
- [3] Wu Handong. *On Intellectual Property Protection*. *Legal Research*, 2000, (1): 69.
- [4] Tom Bakos, Mark Nowotarski. *The End of Free Sharing in In- surance*. *National Underwriter, Property &Casualty/ Risk &Benefits Management* ed. 107. 44 (Nov 3, 2003): 20-21.
- [5] Dong Binghe. *Research on legal protection system for technological innovation*. Beijing: Intellectual Property Publishing Society, 2006: 182-183.
- [6] Bruce W Foudree, Peter KTrzyna. *Toward the Exclusive Right to Market Innovative Insurance Products:the Use of Intellectual Property Law in the Business of Insurance*. *Duke Law Review* Vol. 41 Nov. 4, 1992, p589-590.
- [7] Wang Qilin, Yang Shanshan. *Analysis and policies on the current situation of intellectual property protection in my country's insurance industry Suggestions*. *Journal of Insurance Vocational College*, 2012, (3):10.
- [8] Zhang Junyan. *Intellectual property attributes and protection of insurance products*. *jurist*, 2010, (2).
- [9] Yan Wei. *On the intellectual property protection of new insurance types*. *Insurance Research*, 2002, (2).
- [10] Kangjiafeng. *Intellectual property protection and product innovation of China's insurance products*. *Shanghai Insurance Risk*, 2008, (1).
- [11] Li Zhenxi, Jin Yan. *Research on the Theory and Practice of Intellectual Property Rights in Banking Industry*. Beijing: China National Economic Press, 2008: 24.
- [12] item handsome Wave. *Save risk Industry must Must proactively adapt to the new normal*. *certificate coupon date newspaper* 2016-10-14 (B1).
- [13] Ronald J. T. Corbett. *Protecting and Enforcing Intellectual Property Rights in Developing Countries*. *The international lawyer*, Vol. 35. No. 3. *Foreign Law Year in Review:2000(FALL 2001)*, p1085.
- [14] Cao Bo. *The institutional logic and reform path of administrative protection of intellectual property rights*. *Intellectual Property Rights*, 2016, (5): 55.
- [15] Joy Y. Xiang. *How Wide Should the Gate of "Technology" Be? Patentability of Business Methods in China*. *Pacific Rim Law &Policy Journal*, Vol. 11, No. 3, p812.
- [16] Liu Binbin. *Intellectual Property — Legal Theory and Strategy*. Beijing: Peking University Press Society, 2012: 253.
- [17] Nancy TGallini. *The Economics of Patents:Lessons from Recent USPatent Reform*. *Journal of Economics Perspective*, Vol. 16. No. 2, Spring 2002, p133.
- [18] Yang Zhihuang. *China's Financial Intellectual Property Scientific Development Strategy*. Beijing: Intellectual Property Publishing House, 2009: 164-166.