

A Research on the Intellectual Property Rights Protection in Private Technology Enterprises

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Abstract This paper utilizes quota analytic method, qualitative analytic method and literature methodology, and proposes the viewpoint that intellectual property rights protection is the essential supports of the development of private technology enterprises, if they have no protection or management of intellectual property rights systems, the development of private technology enterprises would lack formidable driving mechanism. Through analyzing the problems and insufficiency of intellectual property rights existing in private technology enterprise, we come to the conclusions: To develop private technology enterprises, in addition to their own efforts, the cooperation and joint promotion are also needed. The key is to run through intellectual property rights as the main line, to promote private technology enterprises carrying out scientific and technological innovation, system innovation and management innovation better.

Key words Intellectual property rights; Private technology enterprise; Protection; Innovation

1 Introduction

“Private Technology Enterprise” is not internationally accepted classification of enterprises, it’s a Chinese characteristic terminology. Private technology enterprises was born in 80's of 20th century, in these years, they developed from nothing, from small to large, by their unique talent constitution and competitive advantage, have played an important role and made considerable progress in promoting scientific and technological progress and industrialization of scientific and technological achievements. The first 103 trial innovative enterprises confirmed in 2006, 77 are private technology enterprises, accounting for 75%. Lenovo and Haier Group are among the world top 500 enterprises. In the 53 national high & new-tech districts, private technology enterprises account for more than 70% of total number of enterprises, among the government identified high & new-tech enterprises, private technology enterprises in Beijing, Shanghai, Jiangsu account for 80%, Guangzhou, Shenzhen account for 90 %, Zhejiang account for 95%. The industrial emphases of private technology enterprises are still in high & new-tech areas, the proportion continuous rising, is the main force of high & new-tech industrial development zones. According to incomplete statistics, at present, in product sales revenue of China's private technology enterprises, high & new-tech product such as electronic information, biological technology, new materials, new energy, mechanical and electrical integration accounted for about 75% of total sales.

Table 1 The Situation of Private Technology Enterprise
(Unit: hundred million RMB, hundred million dollars)

	2005	2006	2007	2008
Amount	143991	150595	162337	159384
Total assets	63120	75667	96993	120000
Annual gross income	61218	76267	98642	100000
Technology income	2757	3514	5217	5360
Foreign exchange earning	1742	2000	2867	---
Paid taxes	2958	3500	4870	---
Technology activity funds	1230	1640	2130	2132
Industry added value	12966	15995	20959	---

According to statistics of polity division of Ministry of Science and Technology, by the end of 2008, private technology enterprises are nearly 160 000, make rapid growth in technical income, paid taxes, scientific and technological activities investment. This fully shows that private technology enterprise is not only the most dynamic enterprise group among high & new-tech industry, but also the main force of independent innovation, has become an important new industry force of national

economic development.

2 Problems in Intellectual Property Rights Protection of Private Technology Enterprises

The establishment and improvement of China's intellectual property rights (IPR) protection system have played a role contributed in promoting the development of private technology enterprises, vast majority of private technology enterprises developed under the protection of IPR system. However, compared with enterprises in Western developed countries, there are a host of problems in IPR protection of China's private technology enterprises.

2.1 Lack of adequate understanding of IPR protection, weak on conservation awareness

In recent years, though Chinese enterprises increased their awareness of IPR protection, by the inertia of thinking, the overall protection awareness is still relatively weak. Number of China's private technology enterprises lack sufficient knowledge in IPR protection, conservation awareness is not enough. Many enterprises do not attach importance to IPR protection in the research & development and production management, think that if the achievements are developed by themselves, they are intellectual property rights, neglect confirm rights to innovation results, the phenomenon such as having knowledge no proprietary, having product no trademark are very common. Many enterprises think that when they develop new products and technologies, they can develop the market not to apply patent or register, so it is not necessary to pay for applying protection. The ideas and channels of enterprise developing and owning IPR are not wide, the momentum of rapid, high-quality and leap development is not formed.

2.2 Serious loss of IPR, IPR protection is not enough

First of all, the leadership does not attach importance to it, security measures and constraint mechanism is not perfect, often unwittingly divulge corporate trade secrets. Scientists often disclose technical secrets when they publish papers, attend conferences. Second, management is not in place. Many private technology enterprises have no uniform rules and regulations on whether to apply for patent and how to manage when authorized, lack of unified management, random give up patent rights. Some enterprises fail to apply for patent protection in time on their technological innovation but are pre-empted by later. Enterprises neglect the IPR valuation, when they assess assets, a considerable part of enterprises did not include patent, trademark and technology secrets which really play a role and create effective in the enterprise, some enterprises give low evaluation. In addition, personnel flow resulting in IPR loss. In private technology entrepreneurs, talent flow frequently, when employees "hopping job", they often took away commercial secrets, in particular, the core management and technical backbone who master the commercial secrets lost to foreign, is the main reason causing the IPR loss of private technology enterprises.

2.3 IPR protection management is not in the place, weak in administration

IPR management involve complex technological, economic, market, legal theory and practice, many foreign enterprises have set up specialized management agencies, and with IPR experts, lawyers, assets appraisers, market analysts and other professional managers. As an intangible asset resources, IPR should be scientific and rational developed, utilized and operated, so the IPR resource efficiency can be full played. Many private technology enterprises in China paid insufficient attention to set up professional IPR management bodies and incentive mechanism, also hindered the enthusiasm of the patent application to a certain extent. Currently, many private technology enterprises neither have specialized agencies and personnel to deal with IPR affairs, nor formulate corresponding IPR management and protection requirements, let alone utilize IPR strategy flexibly to promote enterprise development. Most enterprises do not set up independent IPR management institutions, most relative works pluralized by vice president, the management are mostly part-time, professional ability is low, the capability of researching and utilization is weak, the management is in the loose state.

2.4 High cost on maintaining rights, weak capability on IPR protection

With the expansion of the scale and business scope, there're more and more abuses and violations in private technology enterprises' development process being, serious impact on the formation and healthy functioning of technology innovation mechanism. Many private technology enterprises, especially small and medium private technology enterprises are still at a disadvantage in the capital and human resources, when own IPR were violated, they fear of IPR litigation, fear of time and money consumption, taking the initiative is not enough, could do nothing about the IPR violations by other companies or individuals.

2.5 Not perfect on IPR management mechanism and legislation

About IPR protection management mechanism, there exists some institutional "bottleneck", such as multiple management, against infringement insufficient, high cost on maintaining rights, evaluation system unscientific and others. IPR protection not only involve trademarks, patents, copyright and other competent authorities, but also involve culture, radio and television and movies, information industry and other related departments, as well as customs, public security, procuratorate, court and other law enforcement organs. Fragmented management system can not form a combat force, are likely to cause multiple law enforcement, which create great impact on IPR protection of private technology enterprises. With the continuous emergence of new technologies and new knowledge, new IPR categories emerged. The scope of modern IPR protection has expanded to include computer software, integrated circuits, plant varieties, trade secrets and biotechnology etc.. Developed countries like the United States, Germany, Britain, Sweden and others have set up gene patent granting business, the U.S. even include the network marketing model and other concepts in the scope of patent protection. But in China, some high-tech intellectual achievements involving knowledge-based economy have not yet included in the list of IPR protection, there are some gaps between domestic laws and regulations with international practice.

3 Countermeasures on Private Technology Enterprises IPR Protection

IPR are important assets of enterprises, more and more private technology enterprises have made technological innovation and IPR protection as the core competitive strategy, also regard it as one of four resources juxtaposing with human, financial and materials. Strengthen IPR protection of private technology enterprises, the following aspects should be taken:

3.1 Awareness of IPR throughout the entire process of technological innovation, enhance IPR protection awareness of private technology enterprises

Private technology enterprises should strengthen their own IPR protection awareness, vigorously propaganda the importance of IPR protection, vigorously promote the viewpoint of "IPR is the lifeblood of enterprise survival and development", enhance the awareness of IPR protection of staff, especially of scientific and technological personnel. Technological innovations were not necessarily capable of forming technical and economic advantages, only transform into independent IPR through patent application, access to legal protection and as intangible assets to manage, then can ultimately form their own competitive advantages: technological advantage, product quality advantage and market advantage. Therefore, we should establish the concept pay attention not only to innovation but also to IPR protection and throughout the entire process of technological innovation, that's from topic selection, project research, patents and non-patent technologies search novelty, patent law process condition monitoring in R &D process, initial results management, results transforming and even the commercialization and market transformation and other aspects, to pay attention to the protection by utilizing IPR laws.

3.2 Prevent IPR loss, establish and improve IPR management agencies and systems

Private technology enterprises should bring IPR management into the overall framework of enterprise management to operate, according to its own conditions, set specific personnel to manage or concurrently in charge of, or set up IPR management organizations in the relevant sectors. At the same time, according to IPR laws and regulations, formulate IPR management rules and regulations accord with enterprise's actual situation, standardizing the management and protection of technological innovation. Sound security measures and restraint mechanisms, and should understand and grasp the technical commodity consumption characteristics of technological achievements of own enterprise, that is the indirectness, uncertainty and malleable of use value, and timely response, enhance tracking management.

3.3 Select the appropriate IPR protection mode, effective protect technological innovation results

Especially in the early days, private technology enterprises should according to their needs and economic and technological strength, adopt appropriate IPR protection methods. In general, the invention within the scope of patent protection and have obvious market prospects can apply for patent protection, the invention difficult to be decipher through "reverse engineering", can use technology secret to protect, scientific papers, technical reports and product brochures can use copyright to protect, and should strengthen registration awareness to avoid the difficulties of proof in litigation.

3.4 Improve IPR protection, enhance self-protection capability

Private technology enterprises should care about and understand the trend of IPR protection and

development home and abroad from multi-aspect, improve the self-protection ability of utilizing IPR judicial relief, pay attention to IPR multi-angle protection. If the technology products can meet the characteristics of patent, patent should be applied for firstly, the core technology and key technology can be protected as trade secrets, trademarks should be registered before products on the market, the packing of product should be protected by appearance designs or copyright, their manual should choose copyright protection; advertising patterns and slogans commissioned to design should clear their copyright. No comprehensive IPR protection, enterprises will easily let speculators in by improper competition methods in market competition, and lose products competitiveness.

3.5 Strengthen IPR talent cultivation, pay attention to the construction of IPR management team

Enterprises must take effective measures to strengthen IPR talent cultivation, attention to the introduction of IPR professionals, with emphasis on relying on post-doctoral stations, research institutes, key laboratories and other carriers, introduce high-level talent at home and abroad, in particular, should be targeted the introduction of a number of science and technology leading talents urgent needed in pillar industries and key technology areas, and provide them with good working environment. Increase the investment on IPR talents training and education, improve the business level and overall quality of IPR talent. Vigorously promote personnel training project, to create a line of high quality native talent echelon accord with industry characteristics and structure.

3.6 Eance support efforts to private technology enterprises, create a favorable policy environment

First, the government should emancipate their minds, construct atmosphere, create a good social environment for private technology enterprises. The strategic significance and great role of private technology enterprises in the process of transforming economic development mode, increasing independent innovation capability and enhancing core competitiveness should be fully aware. Unify understanding, change concepts, enhance the sense of responsibility and urgency of developing private technology enterprises, make concerted efforts, effectively promote the large-scale development of private technology enterprises. Second, carding policies, integrate resources, improve policy systems of promoting private technology enterprises development. Sort out the existing policies, re-examine the rationality and feasibility, adjust and improve according to specific conditions, increase implementation efforts of each existing policy of promoting private technology enterprise development, ensure policies are in place. Integrate resources, further improve the financial and tax support policies, sort out, consolidate resources, improve management of various special funds, avoid enterprise multiple applications and applications, improve special funds utilization efficiency. Third, strengthen the construction of technology services platform and technology vector, promote the industrial development of private technology enterprises. Fourth, establish risk investment and financing systems, smooth financing channels of private technology enterprise development.

4 Conclusion

As the main body of technological innovation, private technology enterprises play a pivotal role in technology and economic integration and the process of high & new-tech industrialization. IPR protection system is essential supporting conditions for the development of private technology enterprises. Practice shows that developing private technology enterprises, except their own efforts, the cooperation and joint promotion of allaround also needed. The Party and the nation steadfast implement the policy of emancipating the mind and reform and opening up, creating a macro development environment for the development and expansion of private technology companies. A good legal environment is a necessary condition for the development of private technology enterprises, and in the legal environment, IPR protection system is particularly important. In the new period of development, private technology enterprises are facing new opportunities and challenges, the key is to run through the mainline of IPR all along, namely guide with IPR information functions, and protect by the IPR security function, to promote private technology enterprises carrying out scientific and technological innovation, system innovation and management innovation better, achieve the changes of from family business to the modern enterprise system, from decentralized small-scalization operation to scalization, intensification operation, from labor-intensive to technology-intensive, from irregular operations to standadization operations early. In the process of establishing enterprises as the mainstay, market-oriented, production-academic-research combination technology innovation system, achieving stratigic target of building innovation style country, private technology enterprises will certainly play a greater role by relying on their own system and mechanism advantages, technological innovation accumulation and long-term tempering in the market.

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