Problems and Suggestions on the Mode of Intellectual Property Financing of Small and Medium-sized Technological Enterprises

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Abstract. Medium-sized Technological Enterprises is the key to China's innovation-driven strategy, but its widespread shortage of funds. Intellectual property financing has become an effective way to solve the problem of shortage of funds. This paper combs the relevant literature on the financing mode of intellectual property at home and abroad, and draws some problems such as shortage of talents, low quality and low financing channels in intellectual property financing, and puts forward suggestions from four aspects: colleges and universities, enterprises, banks and governments. The effective integration of the relationship between the four can make corporate intellectual property financing to run better.

Introduction
At present, China's economic reform to advance in depth, Medium-sized Technological Enterprises on the role of economic development has become increasingly prominent. It has a high innovation in one of the characteristics, can effectively absorb scientific and technological achievements, into productive forces, the output is quick, is the key to China's innovation-driven strategy. But the small size, weak ability to resist risks, the lack of fixed assets [1], the shortage of funds makes the enterprise difficult to sustain, so the financing problem has been resolved.2008 "National Intellectual Property Strategy Outline" clear enterprise as the main body of intellectual property creation and use, should guide enterprises to take the transfer, licensing, pledge to achieve the market value of intellectual property. And in the "Property Law" Article 227 specific provisions that patents can be used for pledge. This provision determines that intellectual property can be used as a means of financing, which is undoubtedly to bring the gospel to Medium-sized Technological Enterprises. However, since the implementation of the “Outline”, intellectual property financing has not yet been satisfactorily resolved. In order to explore its reasons, this paper combs the relevant literature on the financing mode of intellectual property at home and abroad, draws China's intellectual property financing problems. Finally, puts forward suggestions from four aspects: colleges and universities, enterprises, banks and governments.

Research on the Financing Mode of Intellectual Property at Home and Abroad

Research on the Financing Model of Intellectual Property Pledge at Abroad
The US market economy developed, completely market-oriented, the government less intervention in the market, Intellectual property pledge financing model has small business management model, the US Silicon Valley banking model, to ensure that the asset purchase price mechanism model. These models have the following features that the marketization degree is high, the enterprise reputation is high, the threshold of the bank set is high, the bank bear the low risk, apply to the intellectual property pledge financing related system and the market environment mature stage. Germany has risk-sharing model, the establishment of relatively complete federal government and state government risk compensation mechanism and guaranteed bank risk sharing system, this
model can effectively put the financial institutions to carry out intellectual property pledge financing activities to a lower level of risk. Japan's policy investment banking model through the establishment of national policy investment banks to provide policy loans. Among them, the German risk-sharing model, the Japanese policy-oriented investment banks are government-led model, the government guarantees increased bank and enterprise loan incentives, reduce bank risk, but the government bear most of the risk, risk decentralization mechanism is not perfect [2].

Research on the Financing Model of Intellectual Property Pledge at Home

According to the role played by the government in the whole process of pledge financing, the paper divides the mode of financing pledge of intellectual property into government-driven, government-created external environment-driven, government-funded risk-sharing, government subsidy financing model, the empirical analysis of the characteristics, effectiveness and shortcomings of each model [2]. Bai shaobu (2010) proposed the combination of supply chain financing and intellectual property pledge financing business, the supply chain financing model for the framework of the system, through the supply chain of small and medium enterprises (suppliers, that is financing enterprises) and the core business between the real project cooperation agreement, with the pledge of intellectual property as a guarantee, the core business payable as a source of repayment of new financing model - intellectual property pledge supply chain financing model[3]. Yuwei (2013) compares the intellectual property pledge financing modes of four developed cities in Beijing, Shanghai, Nanjing and Foshan. On this basis, Nanchang should put forward the mechanism of enterprise qualification selection, pre-loan assessment mechanism, risk sharing mechanism, government subsidies of these four aspects to the deepening of intellectual property pledge financing loan mechanism reform [4].

From the above literature, we can see that China's intellectual property pledge financing market is not high, the government dominated significantly. Mainly due to the small scale of China's intellectual property pledge loans, intellectual property pledge loan business funds amount of small, short duration, the banking system to carry out intellectual property pledge loan business is limited, the country to carry out intellectual property pledged loans in a limited area, making the government involved Intellectual property pledged loans become necessary.

The Problems in the China’s Financing of Intellectual Property

High-end Professionals and Complex Talents Shortage

Intellectual property rights of high-end professionals, including intellectual property value assessment, trading, consulting, litigation and retrieval and other practical work of professional talents; intellectual property compound talents with engineering and technical expertise and proficient in legal, foreign language, international rules of intellectual property talents[5].These talents can play a proactive role in intellectual property creation, application, management, application, protection. However, it is the shortage of intellectual property rights, restricting the development of China's intellectual property service industry.

The Low Quality of Intellectual Property

In recent years, the patent is in explosive growth, but China in the development of the lack of strong innovation ability, and even the economy may be stagnant, because the patent quality is low [6]. Problem patents, garbage patents generally refers to the low technical content, difficult to be commercial conversion of the patent, and sleeping patent may also bring ownership disputes, litigation risk. Therefore, the low technological content, the difficulty of commercialization, the right to owners’ dispute are regarded as low quality of intellectual property rights. The quality of intellectual property is the most important factor in the review of intellectual property financing.

Few Financing Channels for Intellectual Property

Compared with foreign countries, China's degree of marketization of intellectual property financing is low, the financing channels are single. Government financial investment is limited, the lack of
venture capital investment, limited funds cannot be effectively configured in the intellectual property financing market. Intellectual property rights assessment mechanism, intellectual property trading mechanism, intellectual property guarantee mechanism and other financing supporting mechanism construction are not perfect, potential risks make loans difficult.

**Suggestion**

**University Aspects**

As a source of export of intellectual property, universities have a leading role in the education of intellectual property rights. Especially after entering the era of knowledge economy, the cognitive height of new knowledge determines the future of China's intellectual property rights. Therefore, China's universities should vigorously cultivate high-end professionals and compound talents of intellectual property rights, and set up a contingent of intellectual property personnel with sufficient quantity, high quality and reasonable structure to meet the development of intellectual property service industry in China, enhance the level of intellectual property service industry.

**Enterprise Aspects**

Enterprises should strictly grasp the "quality" of intellectual property rights, of which "high quality" that is high technical content of intellectual property; can be commercialized; no right to dispute. These three points are equal to its have own core technology, the core products, so can bring low market risk, high market returns stable cash income flow, commercial banks risk greatly reduced to the right to dispose of the pledge[7].The establishment of a sound intellectual property financial evaluation system to lay the foundation for the loan qualification review.

**Bank Aspects**

The low enthusiasm of bank pledged loans are mainly avoidance of risks. The quality of the enterprise itself and its pledged intellectual property rights is questioned, and despite the issuance of an IP assessment report, banks still need to consider whether the report is accepted. Therefore, the bank will raise the threshold of intellectual property pledge loans, such as raising interest rates, requiring companies to provide security. This is undoubtedly increased the financing costs of small and medium-sized enterprises, for enterprises in the start or growth stage, increased its financial pressure, and ultimately make the enthusiasm of corporate intellectual property pledge greatly weakened. Similarly, there is another situation, enterprises in order to meet the bank's high threshold requirements, forged fabricated financial statements. Therefore, the bank will consider for the risk of loaning them.

**Government Aspects**

The government should first establish a sound legal policy, the formation of a strong legal atmosphere, so that there are laws and regulations, law enforcement must be strict. The legal system of intellectual property rights is mainly composed of copyright law, patent law, trademark law, anti-unfair competition law and other legal administrative regulations or regulations, judicial interpretation, the relevant international treaties and other common constitute. At present, there are still many problems in the legal system of intellectual property rights in China, and the intellectual property law has been revised. But the scholars agreed that should increase the penalties for illegal, increase the illegal costs, can effectively curb infringement and other acts. The orderly operation of the intellectual property market, the reduction of the infringement, can make the bank more secure about the quality of the pledge of intellectual property. Second, the government should actively guide, policy support, increase financial investment, efficient use of financial funds, a reasonable allocation of financial subsidies for the operation of intellectual property financing mechanism to create favorable conditions.

The government should guide the market through policies, while increasing the number of patents should pay more attention to the development of patent quality. Increase the financial
subsidy and risk compensation of the third party service organization in the mode of financing the intellectual property. In the basic research projects, the government as the main investment role, bear the major market risks, continue to increase financial investment and policy support to promote China's scientific and technological innovation capacity to enhance [8]. At the same time, pay attention to the industrialization of basic scientific research projects, the establishment of close cooperation between production and research transformation mechanism. Finally, the government should pay attention to the construction of supporting mechanism, reduce the financing risks and costs, increase the vitality of the financing mechanism, such as increasing the intellectual property trading platform, the establishment of small and medium-sized enterprises financing management banks, support intellectual property insurance institutions, the formation of interdisciplinary professional intellectual property assessment agencies and so on.

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