

The Status of Intellectual Property in the Innovation System and its Relationship with Competitiveness

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Abstract. An effective intellectual property strategy plays an important role in the improvement of innovation capabilities. In particular, the competition has reached a stage of white-hot, and the advantage of intellectual property rights can take the absolute advantage, so that competitors have no resistance. The recent ZTE incident is a typical case. In order to enable our enterprises and industries to seize the commanding heights and seize the initiative in international competition, this paper will analyze the intellectual property strategies of developed countries such as the United States, Japan, Germany, etc. On this basis, organically embed intellectual property elements. In the framework of innovation system and competitiveness analysis, it analyzes and puts forward corresponding measures for the effective implementation of intellectual property strategy in China, and provides corresponding reference for China to establish a globally competitive comprehensive intellectual property strategy system.

Keywords: Intellectual property strategy; innovation system; innovation ability; competitiveness; trade war.

1. Introduction

In recent years, developed countries represented by the United States have been striving to push their product technology standards to the world market, and try to build an international rules system that is conducive to their own. Chinese enterprises are frequently sponsored by foreign companies in the battle for intellectual property rights dominated by technology and patents. This further demonstrates the need to strengthen intellectual property protection and fully demonstrates the importance of national IP strategies [1]. As a government-led national-level strategy, it plays an important role in the construction of a national innovation system. At the same time, a correct view of the relationship between intellectual property and competitiveness is conducive to enhancing the overall competitive advantage and occupying a dominant position in the increasingly fierce national competition.

2. The Status of Intellectual Property in the Innovation System

2.1 Innovation System

Furman and others will be national innovation capacity is defined as a country promote the industrialization of new technology ability for a long time, it not only affects the industry competitiveness of a country and determines a country's future development potential, and that increased investment in science and technology is the way of various countries to enhance innovation capacity, the increase of investment in science and technology will inevitably produce the protection of the intellectual property rights.

At present, China has basically formed an innovation system in which governments, enterprises, research institutions, universities and technological innovation support service systems are interdependent. After the National Medium- and Long-Term Science and Technology Development Plan (2006-2020), the government immediately adopted the work arrangement of the IP strategy. In October 2007, the 17th National Congress of the Communist Party of China proposed the implementation of the intellectual property strategy. In June 2008, the State Council promulgated the Outline of the National Intellectual Property Strategy, which promoted intellectual property rights as an important national strategy and entered the stage of full implementation. Therefore, it is of great

theoretical and practical significance to study the mechanism of intellectual property strategy in the national innovation system.

2.2 The Role Mechanism of Intellectual Property in the Innovation System

The Organisation for Economic Co-operation and Development (OECD) believes that the approach to national innovation systems reflects an increasing emphasis on the meaning of knowledge. The “knowledge allocation power” of the national innovation system is the determinant of economic growth and competitiveness. It is an interactive network system composed of a series of common social and economic goals. The so-called knowledge allocation power is the circulation of scientific and technological knowledge within a country. Some scholars believe that the national innovation system is an innovative resource allocation system [2]. The goal of the national innovation system is to promote the rational distribution of resources between the parties. From the evolution of the concept of the national innovation system, it can be seen that the understanding of the national innovation system has gradually shifted from a group of institutions or organizations to the linkages and interactions between the elements and the flow of knowledge and technology.

2.3 The Concept and Overview of Competitiveness

With the economic globalization and the development of the knowledge economy, the world pattern has undergone a fundamental transformation from bipolar economic integration and political pluralism. The World Economic Forum's World Economic Forum (WEF) and the Swiss International Institute for Management Development (IMD) continue to revise the definition of international competitiveness. In 1985, the World Economic Forum (WEF) first proposed the international competitiveness in the “Competitive Report” as “a country can provide products and services of better quality and lower cost than domestic and foreign competitors”.

2.4 Analysis of the Relationship between Intellectual Property and Competitiveness

First of all, for the most basic factors of production factors, the victory of a country's industry in competition is not based on the initial state of innate elements, but the ability of a country to continuously create, improve and deploy its production factors. The main influence of intellectual property rights on demand elements is through the protection of intellectual property rights protection rules and systems such as patents, trademarks and copyrights, and the protection of the rights of intellectual property rights holders. It will further stimulate invention and creation, continuously meet the needs of the country, and adapt to diversity and individuality. The promotion of intellectual property protection level will promote the accelerated innovation of the whole industry, guarantee the good environment of new technologies and new products by research and development, and ensure the upstream and downstream. Second, the protection of intellectual property rights will drive the development of related industrial groups. There is a close relationship between the driving effect and the product interoperability technology. In the process of forming a strategic alliance to improve R&D efficiency and increase mutual cooperation between enterprises, the prevention of leakage of technology secrets also requires intellectual property protection. The company's goals, strategies, and organizational structure often vary with the actual conditions of the country's industry. According to the Porter Diamond model, the country's overall competitive advantage is mainly the combination of the best elements of coordination and coordination of various elements. Intellectual property plays an important role in the formulation of corporate development strategies, the adjustment of corporate structure and the competitive state of enterprises in the market.

At the same time, intellectual property rights still affect the government's macro policies and opportunities to a certain extent. According to the World Economic Forum's Global Competitiveness Report, the national and regional development criteria for a country or region are <2000 US dollars per capita. The country is in the factor-driven phase. If the GDP is between 3,000 and 9000 US dollars, the country or region is in the efficiency-driven phase, if the GDP is >17,000 US dollars, the country or region enters the stage of innovation drive.

Table 1. Stages of development

	Stage 1:Factor- driven	Transition from stage 1 to stage 2	Stage 2:Efficiency- driven	Transition from stage 2 to stage 3	Stage 3:Innovation- driven
GDP per capital(US\$) thresholds	<2000	2000-2999	3000-8999	9000-17000	>17000

Since 2008, China has entered the second stage. In 2017, China's per capita GDP was 8,386 US dollars in the efficiency stage, but it is close to the transition to innovation-driven. At this stage, China especially needs the support and protection of intellectual property rights in order to create higher levels of production factors drive the growth of the domestic economy. Therefore, it can be said that the theory of national competitive advantage of incorporating intellectual property rights is more in line with the reality of developing countries and can provide more appropriate theoretical guidance for the improvement of international competitiveness and the development of the international economy.

3. Conclusion and Suggestion

3.1 Analysis of China's Intellectual Property Status

According to the "2017 China Intellectual Property Development Status Assessment Report" released by the Intellectual Property Development Research Center of the State Intellectual Property Office in June 2018, the report comprehensively evaluates China's intellectual property rights from four main indicators: creation, application, protection and environment. In 2010, the comprehensive innovation, application, protection and environmental development index was set at 100. The national data from 2010 to 2017 are measured [3]. Since 2010, the national comprehensive intellectual property development index has steadily increased, reaching 218.3 in 2017. This year is the tenth year of the implementation of the national intellectual property strategy.

In terms of international comparison, the report shows that China's intellectual property development level ranks in the middle and upper reaches of the world. Compared with 2015, the China Intellectual Property Development Index has increased from 57.73 to 61.91, and the gap with intellectual property has further narrowed. In the five years from 2012 to 2016, China's international ranking in intellectual property increased steadily from the 7th to the 4th. From 2015 to 2016, the ranking has steadily improved and has entered the top 4 in the world. With reference to the narrowing trend of the gap between China and the United States, Japan, and Switzerland, the gap between the scores of China and Japan will continue to be relatively long in the foreseeable time. In 2016, the three primary index capabilities, performance and environmental indices in China's National Intellectual Property Development Index ranked 4th, 3rd and 29th respectively in the world. Compared with 2014, the capability index increased by one position, the performance index ranking remained unchanged, but the environmental index rose by two. The imbalance in the ranking of the three first-level indices still exists, and the gap between China's intellectual property environment and the world's advanced level will continue to exist.

3.2 Policy and Recommendations

Although China has made some progress in intellectual property rights, in terms of national intellectual property strategy, there is still a certain gap compared with the United States, Japan, and Germany. The experience and corresponding policies in reference to the intellectual property strategy of developed countries will be used in a timely manner. It will be of great significance to the smooth advancement of China's intellectual property strategy:

First, the government should occupy a dominant position in the promotion of the intellectual property strategy and attach importance to the promotion of the intellectual property system.

Second, we must constantly revise and improve national laws and gradually improve and improve the legal system. Judging from the strategic situation of the above three countries, the intellectual property legal system is not static. New things and new technologies have put forward new requirements for perfecting China's domestic intellectual property legal system. Otherwise, it will not be able to adapt to a fast-developing society. Therefore, China's intellectual property system should keep pace with the times, we must pay attention to the intellectual property issues in emerging things, so that our legal system is always advanced, so that intellectual property rights are effectively protected [4].

Third, pay attention to the integration of China's situation and develop an intellectual property system that suits the national conditions and development of the country. The German government is good at strengthening the protection of intellectual property rights in the strong areas of enterprises, while delaying the protection of intellectual property rights in vulnerable areas. China's overall level of high-tech absolute level has a certain gap with the world's industrial powers, but in some places it has its own advantages and is at the forefront of the world. For many of the valuable inventions and patents, it is more advantageous in China. The corresponding level of protection should be increased. At the same time, the government should also give appropriate policy inclinations and protections to China's weak areas, analyze the advantages and disadvantages of various areas of China's strategic implementation, formulate an intellectual property system with clear objectives and favorable domestic development, and give full play to the intellectual property system. The unique role of effective allocation of resources and balanced distribution of interests ultimately promotes the development of the national economy [5].

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