

# Comparative Study on Policy of Improving Innovation Ability of Colleges and Universities between Domestic and Overseas

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## Abstract

Enhanced the innovation capacity of colleges and universities is of great significance for the construction of innovative nation and human resources. Introduced policy situation and characteristics of the innovation ability of colleges and universities between domestic and overseas, and carried on the comparison and analysis. Pointed out that compared with the world's leading innovative countries, China's relevant policy is not perfect enough. Finally, put forward suggestions about the policy of improving innovation ability of colleges and universities to our country.

**Keywords:** Colleges and Universities; Policy; Innovation Capacity

## 1. Introduction

Colleges and Universities are important bases for the development of technological innovation, and its range of activities has penetrated into all areas of national science and technology, economy and culture. Enhanced the innovation capacity of colleges and universities is an important development challenges to the global university currently. Compared to our country, in recent years, countries around the world have effectively promoted the development of innovation capacity of colleges and universities including science and technology, knowledge and talents through the introduction of relevant laws and regulations, policies. These policies and laws have important significance to policy-making in enhancing our innovation ability of universities and colleges.

Through comparative study on policy of improving innovation ability of colleges and universities between domestic and overseas, setting more complete and effective innovation policies for our universities and colleges.

## 2. Basic classifications of foreign policies in innovation capacity

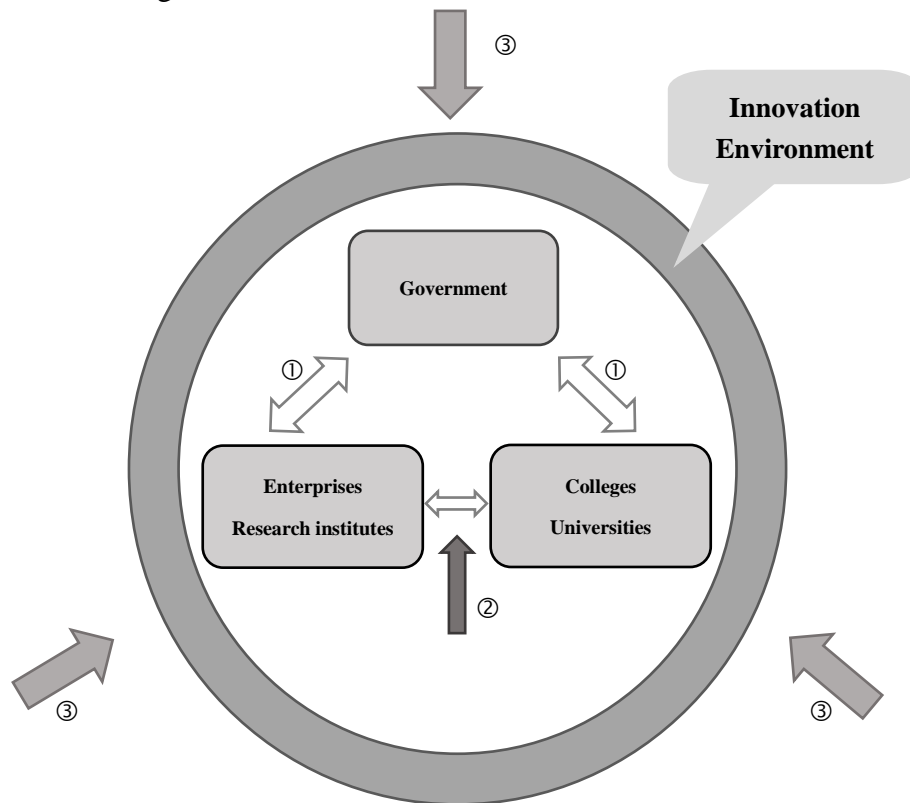
As the leading innovation-oriented countries of the world, the United States, Germany, Japan, Britain, France, Sweden and some countries put a high value on the cultivation and investment of innovation ability of colleges and universities. These countries regard the innovation ability of colleges and universities as the important force of promoting sustainable and healthy economic development and the capability of social service. Therefore, they have formulated and issued a large number of effective laws, regulations and policies.

Through studying the policies and laws and regulations of improving the innovation ability of colleges and universities in the United States, Germany, Japan, Britain, France, Sweden and some countries, the laws, regulations and policies can be divided into three basic categories: the class of principal part's effect, the class of collaborative innovation, the class of innovation environment (figure 1). Among them, the class of principal part's effect have direct effects on the principal part mainly through taking relevant financial subsidies to activate the power of innovation and enhance the function of the policies. The class of collaborative innovation is mainly turning in the direction of

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an innovative interface, focusing on strengthening the interaction between universities, enterprises, research institutes and promoting the diffusion of innovation. The class of innovation environment is mainly through policy, laws and regulations to attract innovative talents, cultivating the good innovation environment in colleges and universities. A macro environment for innovation in colleges and universities support policy to create a macroscopic policy-related environment for innovation activities in colleges and universities.



- ①The class of principal part's effect
- ②The class of collaborative innovation
- ③The class of innovation environment

Figure 1. Classifications of policy of innovation capability in foreign universities.

### 2.1 The class of principal part's effect

From the perspective of the practice of university innovation policy in various countries, the policy of the class of principal part's effect of innovation in colleges and universities is mainly based on the government financial allocation. In Sweden, universities gained 26.8 billion kronor in research funding from the government and public sector in 2009, an increase of 30 billion kronor compared with 2007, an increase of 13%.

### 2.2 The class of collaborative innovation

The trinity of the universities, enterprises and research institutions is the outstanding characteristic of innovative countries in the world. At the same time, the university is an important part to build the innovation ecosystem including the main innovation enterprises, research institutions, public platform, agencies, etc. The policy of collaborative innovation provides a strong support to the cooperation between universities and other innovative body.<sup>[1]</sup>

### **2.3 The class of innovation environment**

Outstanding university innovation environment gather a strong force to innovative talents and other innovative features. Innovation universities, research institutions can effectively release creative energy only in the favorable environment for innovation. Fostering and creating a good environment and culture needs government give some support in policy, institutions and regulations.

## **3.Features and situations of domestic policies in innovation capacity**

### **3.1 Features of the policy**

According to “the National Outline for Medium- and Long-Term Educational Reform and Development (2010-2020),” July 29, 2010 released, make it clear: to play a full part in the important role of Universities in the National Innovation System, to encourage universities to contribute to knowledge innovation, technology innovation, national defense science and technology innovation and regional innovation. July 4, 2011, the Chinese Ministry of Science and Technology issued “The national ‘Twelfth Five-Year’ development plan of science and technology”: in terms of enhancing the innovation capacity of colleges and universities, adhere to the innovation-driven development as the fundamental task. On March 15, 2012, the Chinese ministry of education, ministry of finance issued "Institutions of higher learning innovation ability enhancement" (referred to as the "2011 Plan") proposed Universities, research institutions and enterprises should conduct more in-depth cooperation and build the strategic alliance relationship for better cooperation.

## **4. The comparison of the innovation policies at home and abroad**

### **4.1 The comparison of forms**

The policy form of the United States, Germany, Japan, Britain, France and other countries is mainly in legislation, regulations class, the class of planning file specification less, more mandatory. And China's main policy is mainly plan and method, mandatory smaller. This leads to inadequate enforcement of policy implementation, policy pertinence is not strong, leaders at all levels lack of emphasis on the development of innovation ability of colleges and universities.

### **4.2 The comparison of supporting measures**

As the innovation power, Sweden emphasizes the compatibility on policy , since the research policy act, supporting a series of successively improve innovation policy, such as the innovation system of research, development and cooperation, gradually improving and perfecting the effective path of innovation policy, policy supporting bill mutual coordination and applicability.

### **4.3 Comparison of the mechanism in financial input**

The structure about Innovation funds is mainly composed of the government and private funds. In addition to market-oriented operation, money and will eventually reach the effect of service, establish a relatively complete project assessment and supervision mechanism, timely feedback on use of funds.

## **5. The recommendations for improving policy of innovative ability**

### **5.1 Increasing financial input rational**

The central government in China allocated special funds for 0.5 billion yuan in “2011 plan”. Compared the intensity of investment with Germany, Sweden, Britain and other countries, our country’s investment is not enough. Therefore, our country should not only intensify the funding of innovative activities in colleges and universities, but also according to the specific situation set a

series of policy for the rational investment. And making the convenience of relevant supporting policies to provide the support for the innovative activities of schools.

### **5.2 Changing the way of investment timely**

The central and local government should set up long-term funding mechanism for the innovation of universities and colleges. And the government should aim at the specific university to the specific project, through the direct grants and funding, help the economic growth in harmony with the institutions of higher learning in funding mechanism. Using the way of finance and tax, reducing the pressure of loan in the innovation for colleges and universities and paying attention to the balance of grants and funding.

### **5.3 Building the system of university innovation policy**

According to the experience of all countries, the construction of university innovation policy system create the suitable environment of innovation policy for the development of colleges and universities. And in our country, the policy of innovation in colleges and universities scattered among various program plan, does not have a special policy and law system. Our country should build a set of policy system including financial input contains, the protection of intellectual property rights, science and technology innovation, innovation drive policy to improve the system of relevant laws, regulations and policies to work together.

### **5.4 Strengthen the practicality of policy**

Seen from the status of innovation policy of colleges and universities in China, relevant laws, regulations, policy focus on guidance and direction, lacking of the specific ways and supporting policies. Therefore, the main body of policy need to match with more feasible and related policies, the implementation of the macroscopic policy can be better implemented. In addition, when making innovation policy of colleges and universities in our country, we should pay more and more attention to improve the effect of innovation ability of colleges and universities, the maneuverability is also included in the evaluation standard, making a better combination between the macro policy and the actual operational condition of the policy.

## **6. Conclusion**

In this paper, we conduct research on the innovation capacity of colleges and universities is of great significance for the construction of innovative nation and human resources. Introduced policy situation and characteristics of the innovation ability of colleges and universities between domestic and overseas, and carried on the comparison and analysis. Pointed out that compared with the world's leading innovative countries, China's relevant policy is not perfect enough. Finally that put forward suggestions about the policy of improving innovation ability of colleges and universities to our country. In addition, when making innovation policy of colleges and universities in our country, we should pay more and more attention to improve the effect of innovation ability of colleges and universities, the maneuverability is also included in the evaluation standard. In the future research, more related research will be taken into consideration.

## **References**

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