

Interaction between the Internationalization of Higher Education and the Economic Development of China

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Abstract: Education is the first step in the road to a powerful country. Higher education is an important power that promotes economic development; economic development is the main motivation for the development of higher education. With the development of economic globalization and integration, the internationalization of higher education has attracted great attention from the academia, and its relationship with economic development has become more and more complex. This paper explores the interaction between the internationalization of Chinese higher education and the development of Chinese economy, and then puts forward four suggestions for the internationalization of higher education, in order to better play the role of higher education internationalization and promote economic development.

1. Introduction

The Outline of National Medium-and-Long Term Program for Education Reform and Development (2010-2020) ^[1] clearly proposes that we should expand the opening-up of education, which provides a supporting condition for the internationalization of higher education in China. With the continuous development of China's economy, as well as the development of the higher education internationalization progress and the improvement of higher education quality, the relationship between the two factors is becoming more and more complex. However, domestic research on the relationship between the internationalization of higher education and the economic development of China is extremely scarce. This paper attempts to analyze the interactive relationship between the internationalization of higher education and the economic development of China, and puts forward pertinent suggestions for better playing the role of higher education internationalization and promoting the overall development of Chinese economy.

2. Analysis of the Interaction between the Internationalization of Higher Education and the Economic Development of China

The development of the economic globalization and integration process promotes the free flow of knowledge in the global scope, and also promotes the international flow of talents. ^[2] The essence of economic competition is the competition of science and technology, which depends on the capacity of high-quality talents. The cultivation of talents depends on high-level higher education. In the contemporary world, the focus of competition is the competition of education, especially the competition of higher education. ^[3] The internationalization of higher education requires the internationalization of the higher education system, structure and quality, as well as the internationalization of talent training standards, objectives and methods.

2.1 Theoretical analysis on the internationalization of higher education and the economic development of China

2.1.1 China's economic development leads the internationalization of higher education

Economic development provides the material guarantee for the internationalization of higher education. The rapid development of China's economy attracts overseas students and returnees; the reputation of Sino-foreign schools and Chinese schools running in foreign countries also grows. In

addition, our country vigorously promotes the reform of the government scholarship system. Through substantially improving the standard of government scholarship as well as the project and management systems of foundations for international students studying in China, the efficiency of scholarship usage can be optimized.

Economic development points out the way forward for the internationalization of higher education. China's economic development needs a large scale of high-quality human resources, which inevitably requires high-speed development of higher education. The internationalization of higher education is the response to the development of our times; internationalized talents are the key factors for the future development of our country. At present, China's economic development requires the internationalization of higher education to move towards a higher level.

Economic development provides the platform for the internationalization of higher education. The economic globalization process increasingly strengthens the international platform for educational globalization. Moreover, international organizations such as WTO, UNESCO and OECD have expressed positive opinions on the future development of the internationalization of Chinese higher education. Our country has also actively joined some international organizations to promote educational exchanges and cooperation with other countries, and seek common development of higher education as well as the economy.

2.1.2 The internationalization of higher education of China promotes economic development

The internationalization of higher education promotes economic development by increasing the stock of human capital. Now our country has basically eliminated illiteracy; the integration of higher education with international practice means that higher education has taken on the task of improving the quality of population to a greater extent.^[4] The multi-dimensional exchange of educational resources between countries, universities, colleges, teachers and students can help us to achieve complementary advantages in many aspects, such as educational methods, educational evaluation standards, educational supervision and educational management.

The internationalization of higher education promotes economic development by strengthening scientific research and technological capabilities. Scientific and technological achievements can increase social productive capacity through projects built after transformation, and create investment and employment opportunities in the process of transformation, which can promote the growth of total economic output. Scientists and technicians from different countries continuously acquire and transfer the knowledge, which can improve the level of scientific research innovation in higher education, enhance the innovative production efficiency of scientific and technological human capital, and further promote the overall economic development.^[5]

The internationalization of higher education affects economic development by stimulating domestic demands and promoting industrial upgrade. The internationalization of higher education can stimulate domestic demands and promote economic growth through increasing social and personal consumption capacities and increasing employment opportunities.^[6] The returnees can contribute more to our country and actively promote the industrial upgrade. At the same time, we should actively absorb overseas students from other countries, so as to further stimulate domestic demands and create greater economic benefits.

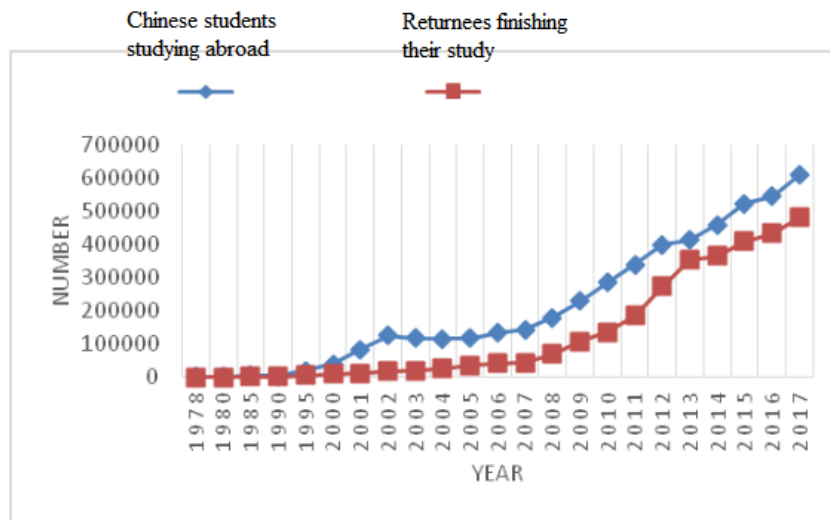
2.2 Data analysis on the internationalization of higher education and the economic development of China

2.2.1 Current situation on the internationalization of higher education of China

At present, educational exchanges and cooperation are developing vigorously. Main methods include Chinese students studying abroad, foreign students studying in China, Chinese-foreign cooperation in running schools, Chinese institutions running schools abroad as well as international scientific and technological exchanges among universities.

The first aspect is the personnel mobility. Firstly, since the reform and opening up, there has been an upward trend in the number of Chinese students studying abroad and returnees finishing their study, especially after China's accession to the WTO (Figure 1). Secondly, the brand of

“studying in China” has gradually been established; the matching degree between the attraction of studying in China and the comprehensive strength of our country has been further enhanced. In 2017, there were 489,200 overseas students from 204 countries and regions studying in universities of China. The scale growth rate has remained above 10% for two consecutive years.



Data source: China Statistical Yearbook

Figure 1. Chinese Students Studying Abroad and Returnees Finishing their Study from 1978 to 2017

The second aspect is flow of projects and institutions. China has made some achievements in introducing high-quality educational resources and running schools overseas. On the one hand, the supply scale of educational resources is becoming increasingly abundant. According to the latest information of the Sino-foreign Cooperatively-run School Supervision and Management Platform, 767 undergraduate projects, 65 institutions, 150 masters’ and above projects and 42 institutions of Sino-foreign cooperatively-run schools have been approved and reviewed by the Ministry of Education. On the other hand, our country actively promotes and serves domestic universities to run schools overseas. As of 2017, there are nine overseas schools run by Chinese universities. (Table 1)

Table 1. Statistics of Overseas Schools Run by Chinese Universities and Colleges

Year	Chinese Universities and Colleges	The Foreign Country	Schools Running Overseas
2011	Soochow University	Laos	Soochow University, Laos
2013	Zhejiang University	Britain	Union College of the Imperial College and Zhejiang University
2013	Yunnan University of Finance and Economics	Thailand	Yunnan University of Finance and Economics, Bangkok Business School
2014	Xiamen University	Malaysia	Xiamen University Malaysia
2014	Tongji University	Italy	Tongji University, Florence Campus
2015	Beijing Language and Culture University	Japan	Beijing Language and Culture University, Tokyo College
2015	Tsinghua University	The United States	Global Innovation Exchange
2015	Beijing Normal University	Britain	Beijing Normal University, Cardiff
2017	Peking University	Britain	Peking University HSBC Business School UK Campus

Data Source: The official websites of colleges and universities.

The third aspect is the international scientific and technological exchanges. Global academia now communicates frontier scientific discoveries and research results with the open and positive attitude. Many colleges and universities in China are also actively involved in international scientific and technological exchanges and cooperation. International scientific and technological

exchanges in universities are reflected in the number of participants involved in international scientific and technological cooperation researches and the activity degree of international academic conferences. According to the Compilation of Scientific and Technological Statistics in Colleges and Universities, this paper integrates data about the international scientific and technological exchanges of Chinese colleges and universities in the last ten years. The overall trend is getting better year by year. (Table 2)

Table 2. International Scientific and Technological Exchanges

Year	Cooperative Research			International Academic Conferences		
	Dispatch (number of people)	Accept (number of people)	Attendance (number of people)	Exchange Papers (number)	Invited Lectures (number)	Host Conferences (number)
2009	30837	30483	117392	75388	11665	1979
2010	35005	33051	121174	76189	12697	2229
2011	37112	34260	125203	88131	14032	2138
2012	41500	37213	144492	98656	15305	2539
2013	39768	36769	156054	94616	16300	2516
2014	40975	37778	159840	97267	17851	2437
2015	44170	37551	163893	93464	18748	2291
2016	44992	37281	166488	93768	19603	2290
2017	46347	39311	180112	99032	20828	2533

Data Source: Compilation of Scientific and Technological Statistics in Colleges and Universities

2.2.2 The current situation of China's economic development

Economic development is a process based on economic growth, in which the economic structure and social structure of a country or a region are continuously advanced, and the quality of population and the quality of life are continuously improved. [7] In recent ten years, China's economic growth has been stable and its economic structure has changed. According to the data of the National Bureau of Statistics, China's GDP and its growth rate were in good condition in the last ten years. In addition, by comparing the contribution of the three major industries to GDP from 2008 to 2017, it can be found that the contribution of the tertiary industry to GDP has surpassed that of the secondary industry since 2014, occupying a dominant position and being in the lead for a long time. Science and technology is the core driving force and the key factor for the progress of the tertiary industry, and also the place which can give full play to the internationalization of higher education in China.

2.2.3 Analysis on the relationship between the internationalization of higher education and the economic development of China

At present, China's economic development has led higher education to the road of internationalization, and the internationalization of higher education has also played a role in feeding back the economic development. However, the internationalization of higher education in China still lags behind the advanced level of the world, and there are still many incompatibilities with the requirements of economic development. From a quantitative point of view, the overall situation has made some progress, but problems like the "deficit" between education input and output, the unbalanced regional development, and the incomplete professional development are still prominent. From the quality point of view, we should attach great importance to the internationalization of higher education in terms of laws and regulations, supervision, innovation and development ideas.

3. Suggestions on the Internationalization of Higher Education and Economic Development

3.1 Emphasis on accurate investment in the process of higher education internationalization

On the basis of the existing investment, we need to further emphasize the precise investment in the internationalization of higher education, which is conducive to improving the ability of

institutions in knowledge production, dissemination and application, and thus expanding the stock of human capital. The method not only conforms to the new economic law, but also conforms to the reality that now in China, the material capital investment is too high but the human capital investment is too low. In the process of higher education internationalization, it is necessary to invest a lot of funds. If we fail to allocate resources reasonably and invest precisely, these national resources will be wasted; the international image of our country will be damaged, which will bring negative impacts on economic development.

3.2 Strengthening top-level design for the internationalization of higher education

At present, laws, regulations, policies and regulations for the internationalization of higher education have been improved. However, the internationalization of higher education started relatively late in China; citizens do not have enough material conditions or consciousness for receiving more higher education. Our limited human capital has not been fully mobilized. Therefore, government departments need to strengthen the importance of higher education internationalization from the two aspects of education subsidies and policy guidance, so that encourage more people to receive higher education, and make everyone realize the need for higher education.

3.3 Focus on training international innovative talents

Innovation is the first driving force of development. Strengthening the training of international innovative talents is an effective way to promote economic development. Higher education has contributed more and more to the economic development, which puts forward higher requirements for the education level of workers. Therefore, in the process of internationalize China's higher education system, the type, level and structure should also be adjusted according to the time and place, so as to make its output more adapt to the needs of economic development, and to avoid over-education in forms of unemployment after education and intellectual outflow.^[8]

3.4 Improving the supervision and management of the higher education internationalization process

The supervision and management in and after the event are indispensable. First, the education sector needs to implement relevant policies and give full play to their roles of guidance and supervision. Secondly, it is urgent to improve the standardized and normalized supervision system in the whole process of university foundation usage. At present, there are still some shortcomings in the foundation usage supervision system, such as principled operation and lagging behind. Thirdly, universities themselves should take the initiative of accepting social supervision, promote the publicity of university funds information, and form a good internal system and atmosphere.

4. Conclusion

The internationalization of higher education is the inevitable historical choice and the objective development direction of higher education development under the tide of globalization. Our country should pay more attention to the precise investment of education funds and R&D funds, the positioning and standardized management of the internationalization of higher education, and the development and innovation of human capital, so as to improve the internationalization level of higher education in an all-round way, and train more innovative talents with high quality and international abilities; we need to take the road of intensive development and promote the overall development of economy.^[9]

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