A Four-Dimensional Analysis on the Connotation of Regional Higher Education Resources

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Abstract. This paper aims at explaining the connotation of regional higher education resources. In the research, this paper conducts the general theoretical speculative method. Through the logical deducting method on the definition the resources, this paper points out which defining the connotation is the core of improving the efficiency of the regional optimal allocation of higher education resources and the coordinated development of regional higher education and promoting the efficiency of regional resources allocation in higher education. At the same time, conditional resources, subjective resources, developmental resources, competitive resources are the resource bases that constitute higher education resources. These four-dimensional resources transform and influence reciprocally, which co-affect the overall development of regional higher education.

1. Introduction

The term "resources" is widely used in all areas of natural and social sciences. From the etymology point of view, in Chinese, "resources" combines two Chinese characters. One is Zi, meaning something can be "relied on or used of"; the other is Yuan, indicating "source and origin". Resource is those "can be relied on or made use of", which "is the sum of the various conditions which enable human beings to engage in activities"[1]. In view of this, the term resource has a distinct subjective relativity, such as resources relative to the individual in society, and those relative to other creatures other than human. Thus, in general, all things that can be used by "me" are resources. On this basis, some scholars, from the social point of view, understand the word "resource" as the basis from which human beings seek their own development [2]. The activities of higher education itself are also kinds of human activities. Therefore, in this sense, "the university is a container carrying higher education resources, and is a structure designed to bear the special tasks of human beings"[1]. University resources can be understood as the basis from which colleges and universities seek their own development. Based on the inherent functions of higher education, the resources of higher education can be understood as all the invested elements that promote the higher education institutions’ development in personnel training, scientific research and social activities. In view of the special nature of the social organization and the characteristics of the university, we proposed a four-dimensional connotation of higher education resources, namely conditional resources, subjective resources, developmental resources and competitive resources.

2. The First Dimension: Conditional Resources

2.1 Population Composition

In essence, education is a kind of social activities to cultivate people. "Human" is the basic element of educational activities. It is the main body of all educational activities and the direct object of educational activities. It is impossible to carry out educational activities without human. Higher education, as an important component of education, is a high-level specialized personnel training activities, which generally enroll the 18 to 22-year-old who received secondary education. These young people are the direct object of higher education, the composition of higher education...
population. Without them, higher education activities cannot proceed if lacking of the specific education object. In this sense, therefore, the population composition has always been an important condition affecting the occurrence, development and existence of higher education, and it is the core element of the conditional resources of higher education. Furthermore, the population composition of higher education can be divided into two dimensions, namely idealistic population and real population. Viewing from idealistic population, all 18 to 22-year-old citizens should enroll into higher education. They are possible to enter the universities and colleges to learn, and become the core of the population of higher education activities. However, viewing from the actual possibility, not all 18 to 22-year-olds can enter the universities and colleges. Since higher education is based on the fulfillment of secondary education, only the population of secondary age who has undergone secondary education is the possible population composition of higher education.

2.2 Economic Basis
In terms of attributes, the process of education is also a process of social reproduction; especially higher education, which does not require the compulsory education stage of the mandatory. In general, it exists as a social cause, and has a typical social reproduction characteristic. Once lacking of the established means of inputs, higher education is no longer called “higher education”. One typical example is economic investment (economic base), such as the purchase for land, school facilities, teaching equipments, teachers’ salary, recruit students, scientific research, personnel training, social development services, etc. These elements are inevitable from the input of social factors, and need certain economic basis as support. In this sense, the economic basis directly determines the input of higher education, and it is also one of the conditional factors for the structure of higher education. In current society, with the liberalization of higher education market, the theory of cost sharing, as well as the introduction of human capital theory, the state and individual as the biggest beneficiaries of higher education, both identified as the cost contributors of higher education and the producers higher education reproduction. From the perspective of the state, the economic base of higher education is mainly GDP, which is the most direct source of state investment in higher education, and also an important economic basis for higher education. From the individual point of view, the economic base of higher education is mainly from the per capita disposable income, which is the direct source of personal education investment in higher education.

2.3 Educational Basis
Higher or tertiary education is the kind above middle or secondary education. All of its educational objects have received a certain degree of (middle) education. Under the condition of proper higher education gross enrollment rate, the level of secondary education determines the quality of higher education development; similarly, the level of primary education determines that of the secondary. On the other hand, higher level of tertiary education provides better teachers for universities and colleges, as well as for secondary education and primary education. In this sense, higher education is an important part of the system of human educational activities, such as cultivation of advanced and specialized talents, the discovery of advanced knowledge, the study of integrated services and the development of social politics, economy, culture and productivity. It is clear that secondary education is the fundamental basis of higher education. Providing qualified students for higher education will directly determines the number of higher education enrollment, and influence the development of higher education. In China, there are two basic types of secondary education, one is the high schools, and the second is the secondary professional schools. Both of them are collectively referred to as secondary education, and the composition of their students is the most important educational basis.

3. The Second Dimension: Subjective Resources
3.1 From Personnel Training Activities
Personnel training or talent training is a consistent activity of colleges and universities. From the world’s first Bologna University (Università di Bologna) to now, this kind of activity has been argued through the "instrumental rationality", "rationality" and other different personnel training concepts, but its core status of higher education has never been interrupted. From the sociological
point of view, the training of talents in colleges and universities is a kind of social activity involving activity "content, place, attribution" and so on, which is inevitably connected to land, teaching aids and other material resources.

From pedagogical point of view, teaching subject and object are human beings. Who and whom are involved in teaching? This relates to questions like, what kinds of students are enrolled? What kind of teachers should be hired? All of these are human resources. Teaching materials include teaching facilities, teaching land, which will result in the content of teaching in colleges and universities. What kind of discipline is built? What kind of professional should be set? These questions answer to the material resources, subject resources, and professional resources[3].

3.2 From Scientific Research Activities

The process of conducting scientific research is the process of discovering knowledge, creating knowledge and innovating knowledge. Only can colleges and universities discover knowledge and create knowledge, they would provide materials for the communication of teaching activities. However, if the colleges and universities would carry out scientific research, it is inevitably ask "who will study?", "what should they study?", "what tools could be used for the research?", "who should pay for the research?" and so on. This means that the scientific research activities of colleges and universities should involve scientific research personnel’s participation, consequently need to provide the necessary research sites and research conditions, and then purchase equipment, books, and the database, which involves financial resources, human resources, material resources, information resources, etc. [3].

3.3 From Serving Society Activities

Serving the society is the core content that can help colleges and universities continuously integrate into the society and establish the natural and social attributes. In order to serve the community, colleges and universities should cultivate talents. On the basis of improving the quality of workers and the developing workers' human resources, consequently promoting the progress of productive forces and social production level. At the same time, universities and colleges should look for knowledge, output scientific research, and transform scientific research into real social productive forces. All of these related to the docking of the university and the labor market, capital market, the enterprise, and the social production sectors. Information, money, material tools are strongly required in these process, thus, it also involves material resources, information resources, human resources, financial resources and so on.

To sum up, from the perspective of the subjective resources, we believe that the process of colleges’ and universities’ development is the process of more and better quality resources aggregation, the process of resources’ effective utilization, and the process of more and better resources’ deriving and retaining. As mentioned above, the financial resources, material resources, information resources, organizational resources [4], human resources and policy resources of the main body, colleges and universities, can be understood as follows. Financial resources are the resources existed in monetary form and related to the allocation of resources in colleges and universities, such as the national higher education financial allocations, research funding, student tuition, external donations, etc. Material resources are those existed in physical form and related to the allocation of resources, such as teaching equipment, laboratory equipment, books, school land, etc. Human resources are the sum of manpower and human capital related to the allocation of resources in colleges and universities, such as teachers, students, administrators, logistics managers, etc. Organizational resources are the unique resources of the special organization as universities and colleges, such as discipline resources, professional resources, school influence resources, etc. Information resources are those which influence colleges and universities as the intersection of the allocation of information resources, such as the management of reform information, enrollment information, employment information, labor market supply and demand information, etc. Policy resources are those led by the national will and related to the allocation of resources in tertiary schools, such as higher education law, national education, long-term education reform and development plan and a variety of relevant education policies and regulations. Other resources are those which cannot be included in the above six kinds of resources but closely related to the
resources allocation. Information resources are the general term for all the documents, materials, charts and data involved in the production and management of the enterprise. It involves the production and business activities in the process of production, access, processing, storage, transmission and use of all the information resources, throughout the whole process of enterprise management. In order to establish the clarity of the evaluation index system of higher education resources, we divide the subjective resources of higher education from the three dimensions, namely human subjective resources, financial subjective resources, and material subjective resources.

4. The Third Dimension: Developmental Resources

4.1 Human Developmental Resources

After the completion of establishing of any higher education institutions, the practice of fulfilling its basic functions has become the core mission of higher education. In this process, colleges and universities through the integration of human, financial and material resources of the subjective resources to carry out higher education practice, such as through a certain period of personnel training, colleges and universities can train the enrolled undergraduates and graduate students to be Master and Doctoral students. Meanwhile, early employed teachers can get promoted, through the student training, scientific research, social services in the process, to associate professors and professors, or access to academic promotion as academicians, or access to the teaching status promotion, like becoming a provincial teaching teacher, national teaching teacher and so on.

4.2 Financial Developmental Resources

For some universities and colleges, after a period of developing, teachers team and students team would receive continuous development, and then they can access to the National Natural Science Foundation, the National Social Science Fund and other research projects funded; or access to business and social groups’ research funding support; or through the school-run industry, school-run enterprises, and scientific research achievements, colleges and universities can achieve incomes; or through the donation of alumni, social team, and personal investment to receive other financial supports. These can transform as financial resources in the follow-up process for higher education institutions[5].

4.3 Material Developmental Resources

After a certain period of developing, through the corresponding personnel training, scientific research and social services, higher education institutions can develop from weak to strong, from small to large; they would continuously improve the school running efficiency, progress the school running quality, and make continuous development in financial benefits. Then, they can apply for the master degree authorization, doctoral degree authorization, declare the national key disciplines, national key laboratories, humanities and social science base, etc., and finally, these will bring new material resources for the school's sustainable development.

5. The Fourth Dimension: Competitive Resources

5.1 From the Perspective of Scale

The scale, quality and benefit of different types, different classes, different levels and different forms of colleges and universities are obviously different. Therefore, the relevant resource elements included in these colleges and universities are different. In order to clearly grasp the state of higher education resources in different provinces, we can also choose the number of students in ordinary colleges and universities, vocational colleges and universities, private colleges and universities, the adult colleges and universities of different provinces to do a simple range of higher resources competitive resources scale comparison[5].

5.2 From the Perspective of Quality

On the basis of the scale comparison, we can also choose the quality of higher education institutions. We can choose the number of 985 colleges and universities distributed in the provinces, 211 colleges and universities, doctoral degree programs, master degree programs and other
indicators of higher education competitive resources. In short, the higher education resources determine the core elements of regional higher education development, different higher education resources grouping for different regional higher education, but different dimensions of higher education resources would achieve the smooth running through mutual cooperation and transformation among higher education institutions.

6. References


