



A study on the connection of specialty setting and industry in Higher Vocational Colleges

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Abstract: It is the basis of the integration of industry and education in Higher Vocational Colleges to promote the effective connection between the specialty setting and the regional economic industrial structure. This paper mainly analyzes the current situation of specialty and industry, the problems existing in the regional economy of higher vocational education service, and puts forward the strategy of connecting the specialty setting and industrial structure of higher vocational education. Realize the matching of talent training with economic development needs and enterprise employment needs.

Keywords: Higher vocational education; specialty setting; industrial structure; docking strategy.

1. Introduction

The social service of higher vocational colleges is to cultivate more technical and technical talents for the development of local economy. The establishment and construction of school majors are related to the cultivation of talents and social services, while the establishment of majors is the foundation and key to the improvement of the social service ability of schools. Therefore, higher vocational colleges must pay attention to and strengthen the research of specialty setting and construction. Industry is the foundation of specialty setting in higher vocational colleges, and specialty is the support of industrial development. The adjustment and optimization of regional economic industrial structure will cause the change of labor force structure, and the change of labor force structure will affect the specialty setting in higher vocational colleges. Professional construction not only represents the strength and level of higher vocational colleges, but also becomes an important force to promote regional economic development. According to the trend of regional industrial structure optimization and its own development goals, higher vocational colleges should

accurately locate and reasonably plan their majors to ensure that they are positioned in the needs of regional industrial development.

2. Current situation of specialty setting structure and industrial structure

2.1 Current situation of industry education integration mode

At present, there is a situation of "three hot and three not hot" in the integration of industry and education. First, the attention to enterprises is not enough, the management system is rigid, and the mechanism of "integration" is lacking; second, the professional content is too old, the teaching method is too backward, and the ability of "integration" is lacking; third, the teaching staff lacks practical experience, the technical level of docking with industry enterprises, and the foundation of "integration". As a result, government officials attach great importance to it, while ordinary people attach more importance to it. They hope that their children can go to famous universities. The central government attaches great importance to it, while the local government takes the enrollment rate as a political achievement. The enthusiasm of higher vocational colleges is very high, but the enterprises do not realize that they are the main body of the school enterprise talent training.

2.2 Industrial structure of Suzhou

According to the overall strategy of national regional development, the plan of Suzhou regional main functional area and the 13th five year plan outline of Suzhou National Economic and social development, Suzhou is building a modern industrial system driven by advanced manufacturing industry and modern service industry, focusing on the development of "three high-end industrial clusters", namely, modern service industry cluster (including finance, modern commerce and commerce, commerce and culture Six fields of chemical industry), high-end manufacturing industry cluster (including the six industries of new generation electronic information, high-end equipment and new materials), modern urban agriculture cluster (including leisure agriculture, intensive processing of agricultural products, agricultural science and trade), and actively promote the quality change, efficiency change and power change of three high-end industry clusters. Suzhou is in a critical period of accelerated development, and the three major industries show a high-level development trend of "three, two, one". In 2013 and 2014, Suzhou's per capita GDP has exceeded 10000 US dollars, but the proportion of the tertiary industry is lower than that of the secondary industry. According to the celquine Chanery discrimination method, Suzhou is still in the middle of the second stage of industrialization. By 2015, Suzhou's three industrial structures accounted for 1.5:48.6:49.9, the proportion of the tertiary industry was higher than that of the secondary industry, and the per capita GDP was more than

20000 US dollars, showing a very similar "three, two, one" industrial structure with the United States, Japan and other developed countries. The intelligent agriculture, the high-end industry and the informatization of service industry have stepped into the post industrial development stage.

2.3 Development status of Suzhou Higher Vocational Education

Currently, there are 17 Vocational Colleges in Suzhou, including Suzhou Vocational University, Suzhou Institute of industry and technology, and Suzhou Industrial Park Institute of technology, with an annual enrollment of about 30000 people in the province. The total number of specialties in Suzhou Higher Vocational Colleges has reached 171, covering 17 first-class majors, 53 second-class majors and 162 third-class majors in the professional catalog, among which electronic information, financial business, equipment manufacturing, tourism, culture and art majors are the most. In recent years, Suzhou Higher Vocational Colleges have closely focused on the development of local industries and the needs of industrial talents, deepened the integration of industry and education, gave full play to the main role of enterprises, and made clear the orientation of running schools through various measures such as group running schools, modern apprenticeship system, and joint construction of training platforms.

3. Problems in the development of Higher Vocational Education Serving Regional Economy

As one of the most developed and dynamic cities in China, Suzhou has continuously promoted industrial transformation and upgrading in recent years. At present, there are two prominent contradictions in Suzhou Higher Vocational Education Service Regional Economy: one is the contradiction between the serious vacancy of high skilled talents required by the industry and the employment status of higher vocational colleges; the other is that higher vocational colleges generally attach importance to the contradiction between the cultivation of students' skills and the students' incompetence for enterprise work after graduation. In the final analysis, these two contradictions are caused by the low matching degree between Higher Vocational Colleges and local industrial economy, and the lack of close connection between the professional structure and industrial structure. The specific performance is as follows:

3.1 The orientation of running a school is generally high, and the matching degree with the development needs of local industries is not high.

The higher vocational colleges in Jiangsu Province are set up according to the needs of industrial economic development in Suzhou and the Yangtze River Delta economic belt,

and have basically formed a pattern of higher vocational education with reasonable layout, complete specialties and distinctive characteristics. Under the new situation of the current shortage of students and fierce competition in higher vocational colleges, in order to establish the image of "high and high", some higher vocational colleges blindly deviate from the development basis and reality of their own schools, seek for large goals and comprehensive scale, and take "domestic first-class" and "international well-known" as the "banner" of external publicity.

3.2 The specialty setting is large and comprehensive, not closely connected with the industrial structure

In Jiangsu higher vocational colleges, the specialty setting is relatively comprehensive. On the surface, there are not only the specialties that adapt to traditional industries, but also the specialties that adapt to emerging industries. However, from the industrial structure of the whole Suzhou, there are two problems in the specialty setting of Higher Vocational Colleges: first, the connection between the specialty structure and the industrial structure is not close, and the talents are not needed. In 2016, Suzhou was short of talents in nine key industries, including new generation information technology, high-end equipment manufacturing, new materials, energy conservation and new energy. In that year, the top five majors in Suzhou higher vocational colleges were electronic information, finance and economics, art design, culture and education, and manufacturing. It is not hard to see that the enrollment majors mainly cover traditional industries and traditional industries, while the coverage rate of the short majors, such as biomedicine, new materials and new energy, is low.

3.3 The level of social service is weak, and the service ability can not keep up with the needs of enterprises

All vocational colleges in Suzhou attach great importance to social services. For example, Suzhou Vocational University has a demonstration base for social science popularization in Cultural Park, Suzhou Institute of Arts and crafts has a pilot base for the study of "inheritors of intangible cultural heritage culture", Suzhou Agricultural Vocational and technical college has a "demonstration base for intelligent agriculture", and Suzhou economic and Trade Vocational and technical college and Suzhou high tech Zone have jointly built a "modern service industry and Education Park". However, the current social services still have the following problems: first, the service level is not high, it is difficult to provide technological innovation for enterprises and create high efficiency; second, the service recognition is not high, there is a phenomenon of "school hot, enterprise cold", and some major projects of enterprises can not be confidently handed over to higher vocational colleges.

4. Strategic analysis on the connection between specialty setting and industrial structure

4.1 Specialty setting should be dynamic in response to rapid industrial upgrading. In recent years, Suzhou's industry has been upgraded rapidly with a growing number of categories. In terms of the total amount of industries, new energy, intelligent manufacturing, new materials, biotechnology, energy conservation and environmental protection, software and service outsourcing, Internet of things and other emerging industries are in a leading position. The development of emerging industries has the advantages of agglomeration and first mover. Suzhou focuses on the development of emerging industries such as nanomaterials, biomedicine, new flat panel display technology, software and service outsourcing, and new energy. The upgrading of the industry is rapid, and the specialty setting always lags behind the development of the industry. Some higher vocational colleges have just introduced a batch of latest experimental training equipment, which has not yet been applied to teaching, new technical equipment has been upgraded, and the equipment just introduced is facing elimination. Therefore, the specialty setting should be close to the industrial development, have the dynamic response to the rapid upgrading of the industry, and the professional talent training plan should also be adjusted dynamically in time.

4.2 The adjustment of specialty setting structure should be forward-looking. The structural adjustment of specialty setting has certain foresight, which is conducive to breaking away from the shackles of low industrial level. At present, the overall technology level of the rapidly rising emerging industries is not high, the industrial level is low, the contradiction between high-end industries and low-end links is still prominent, and there is also a widespread phenomenon that the industrial layout is not reasonable. In the professional construction of Suzhou universities, the growth of specialty categories is far behind. The growth rate of the industry cannot be matched. Therefore, in the construction of professional groups, higher vocational colleges should give full consideration to the characteristics of local industries, especially in the fields of service-oriented industry, emerging industry, pillar industry and high-tech industry. The docking and integration of professional structure and industrial structure should be forward-looking. On the one hand, it is conducive to guiding the accumulation of industrial advantage production factors, on the other hand, it is beneficial to In order to guide the successful docking of technical professionals and industries, and actively cultivate emerging industries to win in the future development.

4.3 Establish a long-term mechanism of government led industry education integration and school enterprise cooperation

The lack of long-term mechanism of cooperation between Higher Vocational Colleges and enterprises leads to the lack of long-term planning of enterprise development, and the lack of long-term cooperation between schools and enterprises. The integration of industry and education, and the cooperation between schools and enterprises are not only the will of the state, but also the performance of the initiative of enterprises. However, due to the lack of long-term incentive mechanism, enterprises are not willing to pay extra costs to provide practice opportunities and practice platforms for college students, which requires the government to formulate and issue relevant cooperation mechanisms from a macro perspective to ensure the win-win cooperation between the school and enterprise. Today, businesses need a lot of skills

5. Conclusion

Specialty setting and construction are dynamic and changeable, which can not be separated from the guidance and guidance of regional economic development and industrial structure adjustment. With the development of regional economy and the adjustment of industrial structure, the specialty setting and construction of Higher Vocational Colleges change and update. Only when the specialty setting is connected with the industrial development, can the talent training match the needs of economic development and the needs of enterprise employment. Therefore, the specialty establishment and construction of higher vocational colleges should be connected and matched with the development of regional economy, constantly improve the ability of social service, and promote the coordinated and interactive development of higher vocational education and regional economy.

References

- [1] Ren Aizhen. Research on the current situation of the docking of higher vocational education and industry in Jiangsu Province from the perspective of industry education integration [J]. Mechanical vocational education, 2018.
- [2] Su Hanli. Practice and thinking of Suzhou Higher Vocational Education Serving Regional Economic Development in the context of industrial transformation and upgrading [J]. Education and occupation, 2018.
- [3] Bu shupo. Research on the dynamic adjustment mechanism of Suzhou Higher Vocational College under the background of integration of industry and education [J]. Journal of Suzhou Vocational University, 2018.