

Research on the Path and Countermeasure of Improving the Quality and Efficiency of High Skilled Personnel Training

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Abstract: The high-quality and rapid development of China's urban economy has constantly upgraded the requirements for different talents. However, the current training mode of many higher vocational colleges for corresponding talents gradually lags behind the pace of social and economic development, and cannot meet the needs of enterprises and local governments for talents under the upgrading and transformation of human capital composition. In order to train the team of highly skilled talents for the society better, this paper analyzes the current status of the training of highly skilled talents from the theory of human capital and training mode, uses methods such as comparison, analogy and empirical analysis to compare and analyze different influencing factors of regional economic development, and puts forward targeted paths and countermeasures to improve the quality and efficiency of talent training from multiple perspectives. Finally, we integrate the teaching resources of higher vocational colleges and scientific research institutions, take the market demand as the goal, improve the talent assessment standards, according to the regional market development and the guidance of the government, targeted training of the current regional economic environment urgently needed high-skill talents.

Keywords: Highly Skilled Personnel; Regional Economy; Improving Quality and Efficiency; Human Resource Structure; Higher Vocational Colleges

1. Research Background

China's economic development has been transformed from the extensive economic growth mode to the pursuit of intensive high-quality development mode. As the mainstay of national economic development, the high-

quality development of urban economy plays a decisive role. [1] As of 2018, there have been 16 cities in China with a total GDP of more than one trillion yuan, and this number has been expanded to 24 cities in 2021. There is an important commonality among these trillion cities, and each city has its own unique advantages in human resource structure, which provides a strong guarantee for the rapid development of cities. [2] The quantity and quality of highly skilled personnel and their proportion in human capital play a pivotal role. However, it has to be pointed out that China's existing one trillion large and medium-sized cities and regional capital cities, central cities of high-skilled talent agglomeration effect is becoming more and more intense, and even has become an important representation of urban attraction. If local cities do not actively promote the upgrading and transformation of human capital composition, and do not increase the cultivation and introduction of high-skill talents, their existing human capital advantages will soon be exhausted, and they are bound to be at a disadvantage in the competition with potential cities. Therefore, how to further accelerate the training of highly skilled talents has become a major problem that must be solved in the construction of a "trillion city"[3].

2. Theoretical Basis

2.1 Human Capital Constitution Theory

A series of questions such as how to train highly skilled talents and how to evaluate the training effect have not been answered. Therefore, in the case that the training of highly skilled talents has not formed a complete scientific system and framework, the introduction of human resources-related theories is a convenient way to solve difficult problems. This move not only provides a solid theoretical foundation for the relevant research of highly skilled talents, but also provides a

certain research basis be innovative. Theodore W. Schultz, the principal founder of the theory of human capital, in his famous speech "Investment in Human Capital", discussed many economic and social development phenomena that cannot be explained by general economic principles, and made clear that human capital is the key to the vigorous development of the national economy in the present era, and pointed out that the overall quality of the population and the input of scientific knowledge are directly affected to a large extent of the future of mankind. [4] From the perspective of human capital, this paper discusses the relationship between human capital structure and regional economic development in Dalian, so that Dalian can better achieve high-quality development in the campaign of building a trillion city.

2.2 Theory of Training Mode for High-Skilled Personnel

Driven by the technological revolution, western developed countries have long realized and started to study the problems related to the training of high-tech talents. According to the actual situation of each country and the existing talent training mode, different countries have formed their own characteristics of high-skill talent training mode. [5] To study these training modes deeply, to understand the internal principle of their operation, to dig deep to solve the pain points in each link of talent training, has important reference significance for their own development. Although the actual situation of countries in the world is different, the inherent law of talent training is the same, and the experience and practice of each other can be interlinked. With the successful teaching experience of typical talents training in other countries, combined with the actual situation of Dalian, it can not only provide useful references for the development of Dalian's higher vocational education, but also promote the in-depth development of highly skilled talents.

3. The Current Situation of the Cultivation of highly skilled Personnel

3.1 School-Enterprise Cooperation Has Not Been Implemented

In today's society, the structural employment contradiction is still prominent, and the

position requirement is not suitable for the technical ability of workers. The economic structure does not match the labor force structure. With the rise of high and new technology, the transformation of production mode also takes place, which, to a certain extent, has squeezed the demand for a large part of traditional low-skill positions, thus putting forward higher requirements for the comprehensive ability of workers such as technical skills and innovation awareness. [6] By the end of 2017, the total number of professional skilled labor force in China exceeded 165 million, accounting for only 21.3% of the employed population in China, and the number of professional skilled personnel was about 47.91 million, accounting for 29.03% of the total professional skilled labor force, which still lags behind the level of developed countries, and there is still a certain gap with the expected target. The shortage of skilled personnel and the imbalance of high-skilled personnel structure have restricted the development of our country's economy and society.

Higher vocational education is the main position of training high skilled personnel. School-enterprise cooperation is one of the most effective ways to train highly skilled personnel. School-enterprise cooperation means that higher vocational colleges and enterprises cooperate with each other in teacher team construction, technology cultivation, resource development, teaching guidance, on-the-job training, scientific research and other aspects. School-enterprise cooperation is a mechanism of vocational skill education personnel training oriented to social demand. However, at present, the subject status of industry enterprises participating in higher vocational education has not been clearly defined, the policy system is lack of operability, and the mutually beneficial effect of school-enterprise cooperation is difficult to achieve. At the same time, the internal and external environment of school-enterprise cooperation is not yet perfect, and a buffer zone is needed between the two. Whether it is the rigid constraint barrier of the government, policy guarantee, or the rights and responsibilities of the internal industry in higher vocational colleges to participate in talent training, interest distribution and other issues, all need to be further clarified. The lack

of communication mechanism between higher vocational colleges and enterprises makes it difficult to achieve an ideal state with a high degree of integration of school-enterprise resources. At present, there are many misunderstandings in the concept and understanding of schools and enterprises due to poor communication, resulting in colleges and universities to reduce the sensitivity and urgency of market demand. Higher vocational education needs to overcome and break through the existing shackles to implement school-enterprise cooperation.

3.2 The Training Effect of High Skill Talents in Higher Vocational Colleges Has Not Reached the Expectation

Higher vocational colleges bear the main responsibility of training skilled talents. Compared with ordinary colleges and universities, the focus of vocational college training is also the characteristics of talent training lies in practical ability and skills. However, as far as the current situation is concerned, the characteristics of most high vocational colleges are not clear and outstanding. In the links that focus on practical ability, there is a lack of deep cooperation with enterprises, and there is no demand-oriented to plan the direction of high-skill talent training, which seriously lacks effective connection between talent training and enterprise needs

The highly skilled talents in higher vocational colleges tend to be in general higher undergraduate schools. Giving up practical training is equivalent to giving up the foundation of higher vocational colleges. Emphasis is placed on theory rather than practice. The curriculum design focuses on basic theory content and cancellations practical training time, which is mainly reflected in the reduction of practical training hours, the on-campus practical training goes through the stages, and the few opportunities for targeted post practical training. Even due to the lack of regular and systematic cooperation between schools and enterprises, the content or post of students' practical training in enterprises does not match the major of students. Therefore, although advanced technical vocational schools have been effective in the whole process of skill training in the aspects of vocational skill behavior, vocational ideals and beliefs, moral standards, etc., how to

effectively improve the skills of personnel with professional skills, reasonable intervention and training still need to be further studied and effective ways. [7]

3.3 The Carrying Capacity of the Training Base for Highly Skilled Personnel is Not Strong Enough

The high-level skill training platform is the front-line position for policy implementation and achievement transformation. The training and performance of highly skilled personnel should be realized through the main channel of practical training platform. All these training platforms have made great progress both in quantity and quality, but they are still slightly insufficient in carrying capacity under the goal of stepping into the "trillion city". On the one hand, the existing training base is more inclined to the field of scientific research, and it is not enough to support the practical operation and ability improvement of technical skills. The type of training base is not comprehensive enough, and the operation mode is single. On the other hand, the insufficiency from government's propaganda of the training base resulted in relatively single investment channels for the training base, and it is unable to gather forces such as the government, enterprises and institutions to jointly support the operation and construction of the training base.

4. The Path and Countermeasure of Improving Quality and Efficiency

4.1 From the Perspective of Higher Vocational Education Development

It is necessary to build a high-skilled talent innovation team with demonstration and leading role. The transformation process of industrial structure has accelerated, and a number of new industrial projects with intensive technology, low energy consumption, large development space and considerable comprehensive benefits have been cultivated. These important industrial projects will become a new source of driving force for future economic development. [8] Modern service industries represented by transportation, financial services, cultural tourism, software and service outsourcing will grow rapidly. Vocational schools should take the development of industrial economy as the

guidance, targeted to establish a high-tech personnel training innovative team that is compatible with regional revitalization and development, actively implement the order-type personnel training model, adjust the teaching orientation, and strive to build a talent team that meets the requirements of local revitalization and development -- highly skilled personnel with active learning awareness, innovation awareness and creativity. The army; Establish a knowledge-intensive, creative sense of high value-added talent team, select excellent technical leaders, support excellent backbone of young and middle-aged teachers, and establish a talent training echelon for sustainable development.

4.2 From the Perspective of Regional Economic Development

4.2.1 Enterprises

Guided by the needs of social development, we will build a career navigation mechanism for high-skilled talents serving urban development. Take career navigation mechanism as the guide to plan the development goal of training high-vocational and high-skill talents, build a bridge between vocational colleges and employing enterprises, and balance the supply and demand of high-skill talents in the workplace. Talents with professional skills are an important source of strength for the healthy growth, self-improvement and independent development of small and medium-sized enterprises. Therefore, it is necessary to systematize the career navigation system of professionals with professional skills in a scientific and reasonable way, gradually form a long-term mechanism in the process of promotion, improve the development conditions of human resources to the national strategic level, and build excellent high-skilled talents a stage for talent. In the process of training high-tech talents, higher vocational colleges should pay attention to shaping and cultivating the correct professional development concept. Enterprises further improve the talent growth mechanism according to their actual conditions, actively implement the "comprehensive compensation strategy", enhance the attractiveness of enterprises to high-skilled talents, build a stable and dynamic team of high-skilled talents, build a stage for high-skilled talents to realize self-value, and create a win-win situation

between enterprises and high-skilled talents. The company builds a "highly skilled talent distribution center", strengthens the communication and coordination with well-known domestic enterprises, internationally renowned universities, research units, and scientific research institutions, jointly builds a platform for enterprise science and technology development, actively attracts scientific and technological talents at home and abroad, integrates the company's scientific and technological strength, catches up with the global leading technology commanding heights, and forms a high-skilled talent gathering area with enterprises as the core. The company builds a nest to attract talents from all over the world, gathers human resources, learns from the global frontier scientific and technological research results to implement technology research and development, enhances the innovation ability of enterprises, enhances the independent innovation ability of enterprises and the transformation level of scientific research results.

4.2.2 Local governments

First, government departments should take the initiative to change their roles and play an overall role. In-depth implementation of the "everyone has a certificate" and "skill city", improve the training program for skilled personnel, fully consider the necessity of training skilled personnel, closely combine the training and implementation of high-skilled personnel with the leap-forward development of the local economy and society, and strive to achieve the demand for skilled personnel to meet the requirements of local economic and social development.

Second, local government departments should build a sound talent management system, create a good environment conducive to the innovation and entrepreneurship of professional talents, accelerate the improvement of the comprehensive service system, improve the service awareness of enterprises, and effectively take practical measures to introduce professional talents. Relevant government departments should put forward targeted policies and measures for returning entrepreneurs and returning technological innovation talents, and take strong quality assurance measures to help high-skilled talents smoothly implement entrepreneurship plans and achieve

entrepreneurship goals. Therefore, in the process of absorbing highly skilled talents with the core goal of strengthening services for local economic and social development, strengthening and improving the comprehensive technical service system and optimizing the innovation environment are important measures for scientific and efficient development. [9]

4.3 From the Perspective of Optimizing Human Capital Structure

4.3.1 Improve the construction of regional economic environment and optimize the structure of regional human capital

The effectiveness of regional human capital is closely related to its regional economic environment, so the improvement of regional economic environment is conducive to the maximum effect of human capital and boost economic growth. Optimizing the local investment environment is conducive to promoting the integration of factors in various fields within the regional development, improving the regional development momentum, increasing the income of government departments, enterprises and institutions, and urban residents, thus driving the growth of local economic benefits, and ultimately forming a virtuous circle of regional economic development. The active degree of market economy enhances the supply function of regional production factor input main body. The improvement of human capital supply quality can not only increase the supply scale of regional human resources, but also cause the difference of human resource quality in the corresponding range due to the difference of individual input environment and investment environment, so that the accumulation of high-level human resources changes the regional human resource pattern and forms the trend of the expansion of regional human resource income. In turn, it also increases the differentiation of human resources in the spatial layout of economy and resources, and finally selects the human capital structure layout that meets the needs of regional economic development. Therefore, in order to increase the investment of regional economic factors, we can promote the continuous improvement of regional economic benefits and lay a good material foundation for the balanced development of regional human

resources supply. [10]

4.3.2 Improve the human resources management mechanism and optimize the human resources allocation mechanism

The distribution mechanism of human resources refers to the relationship and function of each factor that constitutes the allocation of human resources. This distribution mechanism runs through the whole process of the supply, use, distribution and utilization of human resources. In the process of regional economic development, highly skilled talents should be given a good stage to show their personal ability. This requires the government to further improve the training, recruitment, attraction and use of technical personnel in the human resources management work, and make efforts in the improvement and optimization of the system and mechanism.

5. Conclusions

Integrate all the teaching resources available to enterprises, higher vocational colleges, scientific research institutions, etc., improve the quality of personnel training, and highlight the key training and efficiency of high-skilled and scarce talents. With market demand as the leading factor, we will improve the local talent recruitment system and improve the evaluation index system for talent training. To establish a "flexible" mechanism for the introduction of talent training, it is necessary to break the restriction of personnel transfer and form a scientific and orderly system for personnel training and transfer. Although the current level of regional economic development, industrial layout, educational resources, talent distribution and other factors are very unbalanced, resulting in the training, flow, use of talent formed regional defects and shackles, only by breaking and standing up, in order to achieve the goal of improving quality and efficiency, human capital efficiency maximization.

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