# Research on Collaborative Innovation and Development of Professional Groups and Industrial Clusters in Higher Vocational Colleges

# Chaomin Zhang, Shu Tan

Yunnan Land and Resources Vocational College, Kunming, Yunnan, 650217, China

**Keywords:** higher vocational colleges; professional groups; industrial groups; collaborative innovation

**Abstract:** Improving the professionalization of higher vocational colleges is of great significance both to social development and to students' self-awareness. In the current world, technological innovation is one of the most important means of industrial integration and improvement of the competitiveness of the entire country. As a basic force for the supply of human resources in China, higher vocational colleges have always been widely concerned by people from all walks of life. Only by analyzing the main factors affecting the interaction between professional groups and industrial groups, and continuously improving their enthusiasm for development, can we provide talents in our society that are more in line with current needs.

### 1. Introduction

At present, China's economic development has been pursuing continuous innovation. Innovation is the first element to promote production, and it is also one of the important concepts of China's continuous advancement. In the development of higher vocational colleges, it is necessary to put synergy and innovation at the same time. With innovation as the fundamental driving force and synergy as the core of development, only by continuously integrating all aspects of resources in our society can we effectively promote the overall development of higher vocational colleges. As an important source of talents in the society, higher vocational colleges not only contribute to the technological innovation of the industry, but also have an indispensable significance to the research and development of resources. It is also a key part of the education system. To this end, it is necessary to conduct in-depth exploration of the collaborative innovation and development of professional groups and industrial groups in higher vocational colleges.

# 2. The significance of research on collaborative innovation and development of professional groups and industrial clusters

Realizing the development of collaborative innovation is of great significance to the overall development of China's society. There are two main points: First, collaborative innovation is an important part of helping China's industrial independent innovation capability, and it is also helping to build an innovative society. The key link. Today, with the arrival of the new era, with the development of the world economy and integration, although China's economy has been actively developing, it still faces bottlenecks and difficulties in many aspects, especially in the aspect of industrial development. From the analysis of the current obstacles to economic development, the driving of production factors and the driving factors of investment, it is difficult to make new contributions to the overall economy of China's market. If the technology economy wants to improve rapidly, it must innovate. Only by continuously innovating technology and adopting green environmental protection as one of the concepts of technological development can we build an innovative market and build an innovative society. Innovation is the foundation of social development. If we do not rely on innovation, relying on the previous economic development mode will lead to the gradual backwardness of China's economy. We will rely on technological innovation to truly enhance the comprehensive competitiveness of China's industrial chain and let China's new In the era of fierce competition in the world market, we have gained new status. We

DOI: 10.25236/icebfm.2019.081

have always encouraged mutual cooperation in innovation. Collaborative innovation of professional groups and industrial groups in higher vocational colleges can not only help the market economy to gradually recover, but also enable more vocational college students to quickly integrate into social development after graduation. Allowing higher vocational colleges to create more applied talents for our society can also enable students to find the double value of their own value and social value after graduation. Second, collaborative innovation between professional groups and industrial groups is an important way to help deepen the development of industrial research systems. If the education system is difficult to innovate the technologies used in all walks of life in China, it will lead to the technology in society only relying on it to learn from other countries, without independent innovation, it is difficult to build an innovative society, and it will also lead to social development. Going to a state of detention. The research and development of resources in higher vocational colleges has been to help build the foundation for the construction of an innovative society. However, with the rapid development of science and technology, the demand for new technologies has been further improved, and the traditional long-term research system has been difficult to meet social needs, and technological innovation must be carried out quickly. Only by combining higher vocational colleges with economic and technological enterprises can we help China shorten the research and development time in the process of research and development technology, and at the same time improve the quality of technology research and development.

# 3. Suggestions for optimizing collaborative innovation of professional groups and industrial groups in higher vocational colleges

# 3.1 About partner selection

For higher vocational colleges, the most important part in the process of collaborative development and innovation between professional groups and industrial groups is the choice of partners. Whether the choice of partners is correct or not is directly related to the work efficiency and quality of work of higher vocational colleges in the follow-up cooperation work. It also relates to whether the cooperation program can provide more effective talents for the society and realize innovation for our society. Can social development make a positive contribution? Only by choosing the right partner can we continue to play the role of one plus one and two in the follow-up cooperation, and help students to continuously improve their professional quality. For the managers of higher vocational colleges, it is necessary to consider not only the economic and technological industries of the partners, but also the professional direction between the two parties in the choice of the partners. . If there is a certain gap between the two, then as a manager of higher vocational colleges, it is necessary to consider whether students can accept this gap, whether the selected partners can accept this gap, if the difference is too large, it is required to be high. The managers of the vocational colleges re-select the partners. For example, if a higher vocational college is engaged in the process of collaborative innovation and development of professional groups and industrial clusters, and the relevant majors to be selected are Internet technologies, then it is necessary to choose a partnership with the industry chain that can be specially linked. In this way, the talent exchange of technical knowledge between the two sides can be realized, and all the students of higher vocational colleges can learn and adapt to the current development speed of the society before they actually enter the society, so that students can better polish themselves in practice, constantly Improve their professional quality, but also bring more resources research and development skills to enterprises, so that enterprises in the industry continue to help other technical personnel to innovate technology and truly realize the establishment of an innovative society.

#### 3.2 About the establishment of the mechanism

The establishment of the mechanism is directly related to the division of labor and collaboration between the higher vocational colleges and related enterprises. Especially in the technical research and development work, in order to ensure the effectiveness of the technology research and development work, it is necessary to clarify the responsibilities and obligations of different units in

this cooperation and institutionalize them. Only in this way can students in higher vocational colleges make progress in the collaborative innovation of professional groups and industrial groups. When the mechanism is specified, it is necessary to do a good job of cooperation between the two. After the mechanism is determined, it is necessary to analyze the two rules separately to ensure that the regulations can meet the actual needs of the higher vocational colleges and economic and industrial industry staff, and also meet the needs of the two cooperation, and the interests of both will be Standardize into the same stakeholder. The establishment of a perfect mechanism and the finalization of the mechanism content can provide a structure for the higher vocational colleges and the economic and technological industry system to constrain the working methods and work efficiency of the two at work, so that the two can be properly regulated in the actual work. The mechanism system for technology research and development and technological innovation. The establishment of this system can help the two to reduce the contradictions that existed in the past. In the past, because the mechanism was not established, the two companies often had different frictions and collisions due to different ways of thinking and management. The long-term friction and collision caused the cooperation relationship between the two to gradually break down. In the application of the system, it is necessary to coordinate the possible contradictions between the two to ensure that the two can analyze the possible unfavorable factors when the cooperation is carried out, and reduce the risk of the unfavorable factors to the lowest point directly. At the same time, the cooperation efficiency is also positively contributing to society and students. The establishment of the synergy mechanism is an important guarantee for ensuring the synergy between higher vocational colleges and the economic and technological industry professional groups. Only by establishing a relationship of mutual trust between higher vocational colleges and partners can we play the role of mutual progress and common development, and ensure that this kind of collaborative cooperation is continuously carried out in the future work and life, and The development of higher vocational colleges and economic and technological industries provides a positive development significance. Determining the normative standards of the cooperation mechanism of the two, can ensure that the person in charge of the problem can be quickly found in the future, and solve the problem according to the problem, so that the efficiency of the overall operation is gradually stabilized, and the higher vocational colleges and the economy can also be The cooperation in the technology industry is becoming more and more secure.

# 3.3 About knowledge fusion

Both the managers of higher vocational colleges and the partners of the economic and technological industries must realize that collaboration is the basis for ensuring the stability of the project, and innovation is an important goal in this project. If you don't realize this, it is difficult to ensure that the project will meet the society's demand for talent in actual operation. For enterprises in the market, the most important reason why higher vocational colleges are selected as partners for technology renewal and development is that vocational colleges have many professional theories. These knowledge resources are many enterprises in the current Chinese market. insufficient. At the same time, it also has a research and development capability that is worthy of exploration. The research and development capability can promote the rapid establishment of an innovative society in society, and continuously develop the technology toward the concept of green environmental protection under the sustainable development strategy. For the students of higher vocational colleges, the employment opportunities of the economic and technological industry system given by higher vocational colleges can enable them to better understand the theoretical system needed by the current society, and at the same time, apply the theoretical knowledge they have learned. In the actual work, we find our own shortcomings, help enterprises to quickly carry out technological innovation, and gradually transform knowledge into practical theoretical experience. For enterprises, the professional theoretical knowledge provided by higher vocational colleges can also help them break down the barriers to technological development and let them find new directions and new ideas for technological development. This is also an innovation. Only continuous innovation can help the products produced in the enterprise to meet the needs of the current society and allow

enterprises to obtain more market resources in the market. Bring a new path to the technological innovation of products and directly improve the economic benefits of enterprises. The knowledge of higher vocational colleges is mainly academic knowledge, while the knowledge in economic and technological production chains is obtained in social practice. These two kinds of knowledge are very important for students. To this end, enterprises and higher vocational colleges need to share their knowledge and practical experience without reservation on the basis of the management of the common mechanism, so that higher vocational colleges can truly achieve one plus one greater than two. Development goals. All the managers of higher vocational schools are required to share their academic achievements more intuitively and three-dimensionally to industrial technicians. As an industrial technician, they also need to teach their students the technical experience they have learned in practical work. The integration of the people can better form the market reaction. In the analysis of the application effect, it is necessary to provide timely feedback to the higher vocational colleges based on the problems existing in the actual use, and solve the problem according to the problem, so that both parties can see clearly The current difficulties and contradictions, complementing the insufficiency of problems, can better integrate knowledge and practice and break the existing obstacles.

# 3.4 About the distribution of benefits

If the benefits are not evenly distributed, it will lead to problems in the cooperation relationship between the two, or a direct breakdown. Although the distribution of interests is the weakest factor affecting the collaborative innovation development model of professional groups and industrial groups in higher vocational colleges, in actual work, we also need to note that this issue may cause conflicts between the partners. The reason why the distribution of interests of the two is weak is mainly because the higher vocational colleges and the technology industry belong to two different forms of organizations. Higher vocational colleges are more inclined to non-profit organizations in society. It is an organization that helps China train talents, not to obtain greater economic profits in the market. Different from the technology industry, the purpose of possessing talents in the technology industry is to enable talents to create and innovate technologies, so as to obtain more resources in the market, improve the economic benefits of enterprises, and contribute to China's national economy. In the process of cooperation between higher vocational colleges and economic and technological industries, the interests of the two are fundamentally different. Higher vocational colleges are designed to help students in colleges and universities to continuously improve their practical ability, while allowing students to quickly adapt to society when they enter the society. The economic and technological industrial system is to apply the research results of higher vocational colleges to continuously carry out technological innovations, so that the core competitiveness of enterprises is continuously improved and more resources in the market are obtained. It can be seen that there will be no excessive interest competition and conflict of interest in the process of cooperation. However, in order to ensure that higher vocational colleges and economic and industrial industry systems can go hand in hand when cooperating, it is necessary to clarify the balanced distribution of interests, to ensure that the benefits of the interests can be obtained when the two cooperate, and that higher vocational colleges and economic industries can also be obtained. The cooperation of the technical system has developed for a long time. For both higher vocational colleges and enterprises in the market, long-term and good cooperative relations can bring great benefits to both sides, and at the same time bring unmatched positive effects to China's economic and technological development. Further cooperation between the school and the company. At the same time, it will enable both parties to share their knowledge and scientific research more frankly.

# 4. Conclusion

In summary, in higher vocational colleges, it must be recognized that the collaborative innovation of professional groups and industrial groups is an important direction for the progress of higher vocational colleges. Only by completing the combination of strategic aspects of the industry

can we mobilize the superior resources of different industries in the society and help the students of higher vocational colleges to continuously improve their professional qualities in the process of learning. In the end, when we enter the society, we can make new contributions to the technological innovation and technological concept creation of our society and promote the overall economic development of our nationals. From the development of the collaborative innovation model, we find that there are still some deficiencies in it. These shortcomings are the driving force for us to keep moving forward. We also require us to constantly solve and change them and provide more talents for our society. At the same time, it can also inject a new force into society.

# Acknowledgement

The work is supported by Land and resources vocational education 2017-2019Annual scientific research project, Research on dynamic Adjustment of Resource and Environment Specialty Group in higher Vocational Education under the New situation(GTZJ-2017-37).

# References

- [1] Chen Yunsheng. Research on the coordinated development of professional groups and industrial groups in higher vocational colleges under the background of integration of production and education [J]. China Vocational and Technical Education, 2017(26): 27-32.
- [2] Huang Yingqiu. Discussion on the Collaborative Innovation and Development of Professional Groups and Industrial Clusters in Higher Vocational Colleges[J]. Vocational and Technical Education, 2017, 38(14): 25-29.