



The Development Status of innovation and Entrepreneurship Education in Universities, and Strategies for Optimizing Resource Collaboration in the Context of Guangdong-HK-Macao Bay Area

— in the case of Beijing Institute of Technology, Zhuhai

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Abstract. The construction of the Guangdong-HK-Macao Bay Area has stood in an important position in the national development strategy. In such an environment, the domestic demand for high-quality innovative and entrepreneurial compound talents is increasing, and innovation and entrepreneurship education in universities is an important path choice for the cultivation of such talents. This study mainly uses literature review method to systematically summarize the literature, takes innovation and entrepreneurship education in universities as a research clue to analyze the current status, and takes Beijing Institute of Technology, Zhuhai as an example to show how the government, enterprises and universities provide innovation and entrepreneurship education and talent cultivation by collaboration. Based on above, proposes strategies for optimizing resource cooperation.

Keywords: Guangdong-HK-Macao Bay Area; Innovation and Entrepreneurship Education in Universities; Strategies for Optimization

1 Introduction

In recent years, innovation and entrepreneurship education in universities in Guangdong-HK-Macao Bay Area has shown a good development momentum with the support of national development strategies. In particular, related competitions and school-enterprise cooperation has led the new direction of innovation and entrepreneurship education development in our country [1]. In this regard, universities in Guangdong-HK-

Macao Bay Area should enhance innovation and entrepreneurship education, cooperate with enterprises to develop resources, implement the development policies of the Party and the country, lead entrepreneurship with innovation, promote employment with entrepreneurship, and actively adapt to the new normal of economic development while improving the quality of innovative and entrepreneurial talent cultivation in the context of 'mass entrepreneurship and innovation' of current status in our country. The government provides financial support to improve university teaching, focuses on training innovative and entrepreneurial talents for universities, guides innovative and entrepreneurial talents to contribute to entrepreneurial enterprises, and injects new creativity into enterprises as reform goal. The quality of talent training has been improved and the students' innovative spirit, entrepreneurial consciousness and innovative and entrepreneurial ability have been enhanced, and the number of students who devote themselves to entrepreneurial practice has increased significantly by establishing innovation and entrepreneurship education system which integrates classroom teaching, independent learning, combine practice, provide guidance and assistance, and cultural guidance [2].

Beijing Institute of Technology, Zhuhai (ZHBIT) is located in Zhuhai, a city which is full of vitality in economic and social development and has a strong atmosphere of innovation and entrepreneurship in Guangdong Province. The work of innovation and entrepreneurship at this university began to be prepared in 2014, and the Leading Group of Innovation and Entrepreneurship Education was established in 2015 while the School of Entrepreneurship was set up in December of the same year. Its innovation and entrepreneurship work actively serves the national and local innovation-driven development strategy, focuses on the university's goal of building a high-level technology university.

In this context, combined with the status of the development of Guangdong-HK-Macao Bay Area in this time, taking ZHBIT as an example, and based on the analysis of the current situation of the development of innovation and entrepreneurship education in universities, the strategies for optimizing university resources cooperation were proposed, which is of great significance for the in-depth implementation of our country's innovation-driven development strategy. And it also benefits the cultivation of composite innovation and entrepreneurship talents for the Bay Area. What's more, it stimulates the creativity of the Bay Area.

2 Status and Problems in the Development of Innovation and Entrepreneurship Education in Guangdong-HK-Macao Bay Area Universities

Under the influence of the national innovation-driven development strategy and the development opportunities brought by the "One Belt, One Road" plan, most universities in Guangdong-HK-Macao Bay Area have achieved certain results in the construction of innovation and entrepreneurship education mechanisms. The development of innovation and entrepreneurship education in Guangdong-HK-Macao Bay Area is of great

significance to the sustainable development of innovation and entrepreneurship Education in Guangdong and even the whole country. So far, higher education institutions in Guangdong province have established a comparatively comprehensive innovation and entrepreneurship education system, and sent a large number of outstanding talents to make contributions to national and local economic. But in the view of the whole situation, there are some notable problems in the progress of cultivation of innovative and entrepreneurial talents in Guangdong-HK-Macao Bay Area higher education.

2.1 Cooperation Lagging

In the way of international development process, cooperation in multiple areas is becoming more and more closer in Guangdong-HK-Macao Bay Area. However, exchanges and cooperation in the field of innovation and entrepreneurship education in universities are fairly weak. In course of the past cooperation, due to the different social systems, ideologies and values, most of the participating parties in Guangdong, Hong Kong and Macau considered innovation and entrepreneurship education in universities based on their own interests. The solo mode is not conducive to the concerted efforts of the three regions in promoting innovation and entrepreneurship education. Also, it's not a achievable way for the higher education institutions to share and combine resources. Furthermore, the management system is not unified. As a result, it's hard for the 3 regions to build coordination mechanism and organizational structure for the collaborative and integrated development of university innovation and entrepreneurship education, making integration and optimal allocation of resources in all aspects of university innovation and entrepreneurship education in a backward status.

2.2 Unpractical Curriculum

Since the innovation and entrepreneurship education in Guangdong-HK-Macao Bay Area starts late, the construction process is still being explored, and the curriculum and practice mechanism for innovation and entrepreneurship is uncompleted. The grasp and judgment on the types of entrepreneurship courses and teaching model are inaccurate in many universities because of the lack of experience, resulting in the randomness of the relative courses and practices, which manifested as a disconnection between them, as well as the lack of substantive teaching content and knowledge system for the development of students' innovative and entrepreneurial skills.

2.3 Activities out of substance

Various entrepreneurial competitions and events as well as communication meetings were organized by many universities in Guangdong-HK-Macao Bay Area, but the form was more than substance. Meanwhile, many activities were monotonous, while the content of communication meetings and seminars was away from the substance. Moreover, the activities were organized by the administrative and education staff, who have insufficient professional resources for innovation and entrepreneurship and are short of experience, making activities cannot be performed as a deeper exploration and thus

can't contribute to the development. Without the mixing of theory and practice, the students cannot build their entrepreneurship base in the activities.

3 The cooperation and sharing between school and government

3.1 Sorting out innovation and entrepreneurship policy documents

The policies implemented by the government are the key factors to promote the mass entrepreneurship and innovation education in the universities of Guangdong Hong Kong Macao Greater Bay Area. Against this background, Guangdong took the lead in training big data application talents in the Guangdong Hong Kong Macao Greater Bay Area. The General Office of the State Council issued the Opinions on the Implementation of Building Mass Entrepreneurship and Innovation Demonstration Bases (hereinafter referred to as the Opinions). The Opinions takes accelerating the innovation driven development strategy as the guiding ideology and follows the basic principles of government guidance, market leadership, problem orientation and innovation mode. This paper systematically designs and comprehensively deploys the national level to determine the guiding ideology, basic principles and overall goals of deepening the reform of innovation and entrepreneurship education in colleges and universities; The reform tasks and measures are proposed from 9 aspects: improving the quality standard of talent training, innovating the talent training mechanism, improving the innovation and entrepreneurship curriculum system, reforming the teaching methods and assessment methods, strengthening the innovation and entrepreneurship practice, strengthening the innovation and entrepreneurship education ability of teachers, improving the guidance service for students' entrepreneurship, and improving the innovation and entrepreneurship fund support and policy guarantee system; By improving the system and mechanism, refining the implementation plan, strengthening the implementation of supervision and other ways, we will focus on solving some problems faced by innovation and entrepreneurship in China's colleges and universities.

3.2 Relevant fund policies of Guangdong Hong Kong Macao Greater Bay Area

The General Office of the State Council put forward in the Guiding Opinions on Further Supporting College Students' Innovation and Entrepreneurship that the government should strengthen support for entrepreneurship, implement policies to help college students start their own businesses and formulate local entrepreneurial subsidy measures. In one case, an individual venture contributed 10000 yuan. If it was a team venture, each additional partner or shareholder would contribute 25 million yuan, and the average household contribution should not exceed 15000 yuan. In the national implementation of the college students' independent innovation plan, a certain amount of financial subsidies will be given to college graduates' independent entrepreneurship projects. The one-time comprehensive entrepreneurship subsidy is based on the sum of two subsidies,

namely, employment promotion and tax payment, with a maximum subsidy of 200000 yuan.

3.3 Government cooperation optimization strategy

For the development of Guangdong Hong Kong Macao Greater Bay Area at this stage, its key work is to "implement the planning outline and increase policy support". Among them, as an important base for talent training, scientific research and social services, universities' own reform and innovation will directly affect the healthy and sustainable development of China's regional economy and the implementation of the national strategic layout. Therefore, the local governments of Guangdong, Hong Kong and Macao should take innovation and entrepreneurship education in colleges and universities as the core theme, base on the current policies, and further explore more perfect policy plans. Specifically, we should strengthen the exchange and cooperation between Guangdong, Hong Kong and Macao government departments, improve and break through policies in the form of resource sharing, and optimize the university cooperation and exchange mechanism in combination with the characteristics of the innovation and entrepreneurship education system in the Guangdong, Hong Kong and Macao Greater Bay Area, so as to lay a foundation for in-depth cooperation and exchange between universities.

In addition, the government departments can also, within the existing innovation and entrepreneurship product transformation framework, work with universities and enterprises to formulate new policies to promote the flow, transformation and application of innovation and entrepreneurship achievements of universities in the Greater Bay Area according to the actual conditions and characteristics of the Greater Bay Area of Guangdong, Hong Kong and Macao.

3.4 Sharing between universities

The student-teacher communication platform for talents cultivation achieves the goal of information resource sharing by recruiting some superior teachers to teach and train entrepreneurship in local, based on the interactions and academic communications between students and teachers from different universities. In order to strengthen the communication and cooperation with the universities in Hong Kong and Macao, the universities in Zhuhai adopt the cooperation mode above, bringing in the senior professors from The Hong Kong Polytechnic University (PolyU), and train the students. The brilliant students who are qualified could apply for PolyU or other universities or colleges abroad.

Besides face to face communication and cooperation, the online mode is also doing well. It designs and develops the innovative entrepreneurship education and builds a network resource platform, which could not only break the geographical limitation, but also guide the students to self-directed collaborative learning and cultivate their innovation and entrepreneurship consciousness. In brief, practical and pragmatic principle is being pursued.

4 Conceptions and Plans of Government-Enterprises-Universities Collaboration

In the progress of cultivating the capacity of innovation and entrepreneurship by the universities, those which could be used in the innovative entrepreneurial activities, or have a positive impact on the innovative entrepreneurial thinking or skills are considered as the resources of innovation and entrepreneurship. To play a better role of innovation and entrepreneurship resources in the cultivation of talents, reasonable and efficient integration and allocation for the innovation and entrepreneurship resources are necessary. Not only the educational resources within or between universities are indicated, but those shared among universities, government and enterprises also play an important part.

For the higher education, the universities in different regions of Guangdong-HK-Macao Bay Area should break the limitation, gather high-quality innovation and entrepreneurial resources from the three regions, closely follow social requirements and macro policies of the government to adjust their corresponding strategies, serve the local economy, commit to the future economic integration of the bay area, and maintain the flow of talents and talent pool for regional economic integration. In this environment, the exploration of constructing collaborative institutions for innovation and entrepreneurship education should go further. Above all, the major resource integration between the faculties of government, universities and enterprises will have a great influence on the innovation and entrepreneurship education in the universities. This 3 entities affect on and feed on each other, and integrate their resources, will take the university innovation to a new level in the future.

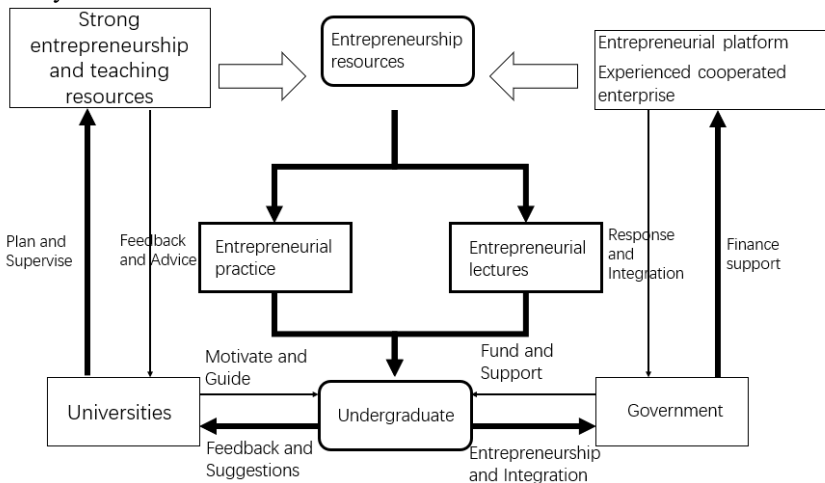


Fig. 1. Integration of government, school and enterprises cooperation and cultivation(self-drawing)

5 Conclusion

The development of innovation and entrepreneurship education in higher education must be accompanied by changes in the external environment and in the policies of the government, enterprises, and universities. The resource collaboration among government, enterprises and universities plays an important role in promoting innovation and entrepreneurship education in universities. It not only provides a platform for learning multi-functional skills and knowledge but promotes self-construction from innovation and entrepreneurship to management cooperation and other aspects as well. However, in the current environment, the loss of effective communication and incentive mechanisms affects the development of innovation and entrepreneurship education activities in universities. Innovation and entrepreneurship education can be better carried out by integrating it with all sectors of society.

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