

Research on the Current Situation of University Student's Innovation and Entrepreneurship under the Background of "Internet + Maker Education"

Tongxin Zheng

Management of Human Resources, Beijing normal university-Hongkong Baptist university united international college, Zhuhai, 519087, China

p930024350@mail.uic.edu.cn

Abstract. Innovation and entrepreneurship education is one of the important factors driving the rapid development of China's economy. However, it is still in its initial stage and many challenges have not yet been solved. Combining the characteristics of the "Internet +" era and the background of Maker education, this paper mainly explores the current situation of China's university students' innovation and entrepreneurship ability. The methods of cultivating university students' innovation and entrepreneurship ability. Through the research, it is found that the situation of contemporary university students' innovation and entrepreneurship is not optimistic, which is mainly related to the lack of systematic planning and faculty strength in China's current innovation and entrepreneurship education. Finally, this paper constructs a more systematic implementation plan for innovation and entrepreneurship education in universities through the integration of "Internet +" and maker education in order to help college students to create their career better.

Keywords: Innovation and entrepreneurship education, "Internet +" era, Maker education, Cultivate

1 Introduction

Since the twenty-one century, China has had new requirements for the development of ideology on a certain economic basis. Besides, the innovation and entrepreneurship education in universities is an educational model that is compatible with socioeconomic development and education reform, which should reflect the integration innovation, and application of knowledge [1]. In addition, it is a vital task for students to put this new education model into practice. When referring to the reform of higher education in the Report to the Eighteenth National Congress of the Communist Party of China, it was proposed that "We should turn China into a country with a large pool of competent professionals, and give more support to the training of innovative and entrepreneurial personnel" [2]. Therefore, it is essential for China to follow the trend of the times and

update the requirements of innovation and entrepreneurship education if China wants to accelerate the growth of the economy by using an innovation-driven strategy.

As the application of Internet technology continues to spread in various fields, the advantages of the Internet era have also brought great changes in people's daily lives. In today's information age, the educational form of Chinese universities has also changed, and the cultivation of innovative talents is an inevitable trend in educational reform. According to Ge's research, it shows that Chinese undergraduates are lack of innovative thinking and imaginative capacity. Meanwhile, the knowledge that students acquire from the classes cannot be adaptably connected to practice [3]. As a result, it causes many troubles for students in selecting and building their careers. So, this paper aims to solve two main problems. On the one hand, purposing effective reform suggestions for the current education model. On the other hand, providing reasonable advice for the cultivation of individual student innovative and entrepreneurial awareness and ability. By studying the previous literatures, this study not only can be served as a reference for universities to cultivate innovation and entrepreneurship, but also a guidance for students to indicate directions of their innovation and entrepreneurship practice and activities.

2 Problems of Universities students' innovation and entrepreneurship

2.1 Weak innovation and entrepreneurship awareness

In recent years, with the rapid development of the social economy, the number of university graduates has been rising, and the government has increasingly improved the policy of innovation and entrepreneurship for university students. With the support of the government, universities are carrying out entrepreneurship education as a breakthrough to promote comprehensive education reform. Universities have generally offered corresponding courses, established science and technology parks for university students, set up incubation funds, held innovation and entrepreneurship competitions, etc., and have achieved certain milestones, and the quality of innovation and entrepreneurship training has been significantly improved.

Despite the various incentives introduced by the government and the effort made by universities, in the Internet+ era, the cultivation and assessment mechanism of innovation and entrepreneurship in Chinese universities has not been perfected, and the atmosphere of innovation and entrepreneurship in universities is not strong. On the whole, university students are generally not highly motivated and do not pay much attention to the cultivation of innovation and entrepreneurship. Universities are also currently focusing on the employment rate of graduates, which is the main strategic direction of talent training. For many university students, the innovation and entrepreneurship competitions are only utilitarian projects and lack practical transformation. In addition, innovation and entrepreneurship are mostly theoretical in nature, and there is still confusion about how to do it in practice.

2.2 Lack of innovation and entrepreneurship abilities

Innovation and entrepreneurship is a necessary means to transform theoretical knowledge into practical results, and is an important factors affecting the efficiency and effectiveness of the completion of students' innovative and entrepreneurial activities. According to Ju Zhanjie's survey, it is clear that at the level of professional vocational skills, 38.19% of students chose to have the necessary skills or expertise to complete a certain type of work; more than half of students chose not to have them. In terms of overall social skills, 27.54% of students considered organizational and management skills to be the most important entrepreneurial skills, with social skills coming in second at 14.71% and creativity coming in third at 14.20%, followed by psychological adaptability, executive skills, learning transfer, career planning, communication skills, reflective evaluation and group creativity. In terms of innovation and entrepreneurship soft skills, 78.84% of students chose to actively collect information to help them make personal decisions, while 13.84% would not actively collect information to make decisions; 3.62% had very good interpersonal relationships, 45.80% had good ones, 31.01% had average ones, and 14.06% and 5.51% had poor ones and very poor ones respectively. The proportion of students who are used to making plans and arrangements in advance and are able to carry them out strictly is 26.38%; those who can make plans and arrangements in advance but their implementation will be affected is 26.81%; while those who do not make plans and arrangements at all and are not able to follow them strictly are 46.81% [4]. It can be seen that students have a certain foundation of professional vocational skills, but they are not solid enough; while in terms of the soft strength of innovation and entrepreneurship, factors such as information gathering power, execution power and interpersonal relationship handling are relatively low.

2.3 Lack of innovation and entrepreneurship qualities

As the number of university graduates grows and graduates face increasing pressure to find jobs, more and more people are starting their own businesses. Most university students make the decision to start their own business out of the psychological burden of reducing their workload. This mentality makes it difficult for them to run their business well as they will be intimidated by the difficulties of starting a business. Most contemporary university students are in relatively good survival conditions and find it difficult to step out of their comfort zone. Their reverse thinking is relatively weak and they are likely to give up midway. University students cannot rely solely on their enthusiasm to start their own business, but rather have a high degree of responsibility for their own business [5]. Therefore, it is important for realizing the correct perceptions of university students to cultivate the quality of innovation and entrepreneurship among them.

3 The cause analysis of problems in the cultivation of innovation and entrepreneurship among university students

3.1 The immature concept of targeting innovation and entrepreneurship cultivation.

At present, many universities have not yet set up independent disciplines and specialties for innovation and entrepreneurship education, and most of them regard the cultivation of innovation and entrepreneurship ability as a component of employment guidance, without elevating the cultivation of college students' innovation and entrepreneurship ability to the height of the higher education talent training target system, without forming a relatively mature theoretical system and framework. At the same time, due to the influence of factors such as the separation of theory and practice in innovation and entrepreneurship education, the separation of innovation and entrepreneurship education from professional course education and the pursuit of timeliness, three tendencies are presented in the process of cultivating innovation and entrepreneurship ability: firstly, the tendency of the concept of emphasizing theory but not practice. Secondly, the course of cultivating innovation and entrepreneurship is independent of the professional courses, lacking interconnection with other disciplines and making it difficult to realize the integration of knowledge. Meanwhile, from the perspective of the possible cultivation of innovation and entrepreneurship itself, it lacks both mature educational objectives and clear logical relationships between objectives and disciplinary contents, resulting in the cultivation of innovation and entrepreneurship of college students in a state of no rules to follow. Thirdly, influenced by utilitarian education philosophy, the cultivation of innovation and entrepreneurship is equated with guidance for employment or entrepreneurship, focusing on the content of enhancing the employment and entrepreneurship rate and neglecting the cultivation of innovation and entrepreneurship quality.

3.2 Imperfect cultivation system of innovation and entrepreneurship

The teaching of innovative and entrepreneurial skills is an important foundation for the cultivation of innovative and entrepreneurial skills among university students. At present, innovation and entrepreneurship education is not part of the education system, and there is no clear professional orientation. It lacks the systemic and rigorous nature of the discipline, and the form of the curriculum is relatively homogeneous, and there is an imbalance between the actual proportion of the curriculum and the needs of students displayed. The time way of cultivating innovation and entrepreneurship is often limited to holding entrepreneurship projects such as "Challenge Cup" and "Internet+" innovation and entrepreneurship competitions, and universities build a single platform for diversified innovation and entrepreneurship education and practice. At the same time, the business incubation parks in universities also have a low utilization rate, lack of professional teachers' guidance, inability to carry out diversified innovation and entrepreneurship practice activities and lack of financial support, which is one of the important

reasons for the poor effect and low success rate of innovation and entrepreneurship practice of university students. The practice system for cultivating college students' innovation and entrepreneurial ability is not perfect, the practice platform is not sound, and the efficiency of college students' innovation and entrepreneurial ability exercise needs to be improved.

3.3 Lack of legal guidance and services in the entrepreneurial projects

Although most universities have established university student business parks, there are few legal guidance, legal advice and legal aid services to help and guide university students to effectively deal with legal risks. The government has also failed to integrate social resources well to conduct education and publicity on the legal risks of innovation and entrepreneurship, and properly guide university students to understand and prevent the legal risks of entrepreneurship. According to the research results of some universities in Hubei, 79.68% of university students think that knowing the legal knowledge related to entrepreneurship is a necessary quality for entrepreneurship, and 71.94% of them are also aware that the use of the law plays a great role in preventing the risk of entrepreneurship, but only 11.29% of university students know some legal knowledge related to entrepreneurship, and 22.58% of them still do not know it at all. As for the way to obtain legal knowledge, 85.81% were introduced through the media and the internet, and 60.32% through classroom learning. This reflects that university students have only one way to obtain legal knowledge about entrepreneurship, and the knowledge they acquire lacks comprehensiveness and accuracy. At the same time, when university students encounter legal problems, their problem-solving skills are relatively weak. When asked the question "Which way would you go when you encounter a legal problem", 84.19% chose to seek help from a lawyer, 61.94% and 43.52% of students would seek help from their school or parents or relatives, but 54.19% of students still chose to solve the problem themselves. In terms of the "reasons why legal recourse was not an option", 66.77% confessed that they did not think of using the law at all due to a lack of legal awareness [6]. This shows that due to the lack of legal knowledge, students are unable to use legal means to effectively solve the problems caused by the various aspects of the entrepreneurial process, such as raising funds, setting up the organization, concluding contracts and travelling.

4 Suggestions on promoting innovation and entrepreneurship

4.1 Strengthen education and training for students to stimulate their enthusiasm

As some university students are less motivated and involved in innovation and entrepreneurship, it is significant to strengthen education about entrepreneurship and innovation. In particular, career consulting agencies and tutors in colleges and universities should choose courses from the entrepreneurial activities that the school likes, and actively carry out activities to stimulate students' participation and enthusiasm [7]. At the same time, it is necessary to strengthen the education of college students, make them pay more attention to entrepreneurship and innovation, and allow outstanding graduates with entrepreneurial experience to give lectures at the school, so as to improve students' sense of innovation and innovation. Start a business with a positive image, so as to inspire them to learn the skills of innovation and entrepreneurship from the heart, and truly improve their innovation and entrepreneurship ability through their own efforts. In addition, there should be school career counselling agencies and mentors to positively promote and guide university students on innovation and entrepreneurship, so that they can realize the importance of entrepreneurship and allow them to integrate it into their practice and deepen their understanding, which may enable them to provide a better choice for their career development [8].

4.2 Optimizing the curriculum system of innovation and entrepreneurship

Currently, the teaching content of innovation and entrepreneurship for university students is relatively single, which is difficult to enhance the enthusiasm of university students. Universities should organize innovative and entrepreneurial practical activities for college students according to social reality, so as to fully mobilize their enthusiasm for learning. Universities can appropriately expand the scope of their teaching programs and strengthen the focus on innovation and entrepreneurship so that the social reality and entrepreneurship of college students can be combined [9]. At present, "Internet+" has been widely used in the whole industrial chain, and the education and practice of universities should actively follow "Internet+" and carry out new theoretical and practical education based on it.

4.3 Update policies to meet the needs of different stages of innovation and entrepreneurship

Targeted policies should be implemented in entrepreneurship at all stages of the development of the business, and policies should be adjusted promptly according to the effectiveness of implementation. For instance, in the initial stage of the start-up company, the policy should tend to funding, taxation, as well as innovation and entrepreneurship education policy support; in the stable development stage, the maturity of the start-up company pay more attention to the training of talents, the introduction of technology, scientific and technological research and development, the construction of a more usual and efficient government-enterprise information exchange platform to encourage enterprises to increase scientific and technological research and development.

4.4 Strengthen coordination between government departments

Innovation and entrepreneurship among university students require greater synergy and innovation among government departments. Firstly, building a channel for communication and information sharing between departments. Leaders start from the goal of departmental cooperation, reasonably design the workflow of departmental collaboration, improve the information communication mechanism of each department, strengthen the management of information by each department, guide information sharing, improve communication awareness and create good communication division. Secondly, the objectives of the innovation and entrepreneurship policy are addressed by identifying the host and supporting departments and clarifying the division of labor among them. Finally, the future focus of innovation and entrepreneurship policy should be to coordinate the policy layout, improve the structure of policy types and highlight the objectives and landing points of entrepreneurship policy. Throughout the whole picture, from large industry industrial policies and technical standards to small company preferential policies, the institutional mechanism for innovation and entrepreneurship should be improved to ensure certain policy outputs. Increase support so that policies are tilted towards start-up companies that value quality and efficiency, and improve the efficiency of policy implementation [10].

5 Conclusion

This paper omits the discussion of current situations and problems when it comes to innovation and entrepreneurship in China. The state attaches importance to innovation and entrepreneurship education for university students, but it is still in its preliminary stage and there is still much room for improvement. The state, universities and individual students all need to implement the cultivation of innovation and entrepreneurship awareness and the enhancement of innovation and entrepreneurial ability in order to promote the success of innovation and entrepreneurship among university students and drive the development of the social economy [11]. The university's innovation and entrepreneurship education models can reform and improve the traditional teaching methods, as well as cultivate the innovative faculty and creative thinking ability of students. At the same time, it's vital to value the comprehensive training of students' capacities, laying the establishment for the inventive entrepreneurship of students [12]. The disadvantages of using only the literature research method in this paper include the fact that the level of innovation and entrepreneurship among university students varies from province to province and there are significant differences, which may be overlooked by the literature research method. The authors of the literature may carry certain ideological tendencies, and the perspective of the reference articles may be influenced by them, with certain cognitive biases and less comprehensive and complete views. In future studies, more primary data can be obtained using methods such as questionnaire surveys. The questionnaire method is more objective than the literature research method as the results can be better quantified and data analyzed. The focus of this paper is on the external environment of university students' innovation and entrepreneurship. Future research directions can start from the internal factors of university students' innovation and entrepreneurship, such as studying their sense of responsibility or analyzing the influence of personal factors of university students' innovation and entrepreneurship on their success from a psychological perspective.

References

- Rodney, B. D., and Jacob, C. (2017). Integrating positive psychology, behavioral activation, and the serious leisure perspective in mental health counseling: a case report. Int. J. Appl. Posit. Psychol. 1, 57–68. doi: 10.1007/s41042-017-0006-y
- Alicia, R. C., and Christopher, B. (2017). Positive psychology school-based interventions: a reflection on current success and future directions. Rev. Educ. 5, 60–86. doi: 10.1002/rev3.3080
- 3. Ge, Y. Q. (2020). Psychological safety, employee voice, and work engagement. Soc. Behav. Pers. 48: e8907. doi: 10.2486/indhealth.2014-0257
- 4. Huang, W., Zhang, B., and Ban, R. (2018). Research on innovation and entrepreneurship education in local colleges and universities from the perspective of positive psychology. J. Zhaoqing Univer. 6, 66–69.
- Ai, C. J. (2017). Research on the formation mechanism and cultivation path of College Students' social responsibility. J. Hunan Univer. Sci. Technol. 1, 179–184.
- Yanli, C.& Leijia Dai. A Study on the Awareness of Legal Risk Prevention and Capacity Cultivation of Contemporary College Students in Innovation and Entrepreneurship. *Economist* (04), pp 179-182.
- Roediger Voss. Thorsten Gruberjsabelle Szmigin. "Service quality in higher education: The role of student expectations". Journal of Business- Research (2007), pp 949-959
- 8. Chen, W. Y. (2013). Cultivation of social responsibility in entrepreneurship education of college students. Res. Higher Eng. Educ. 3, 91–94.
- 9. Lei, G. (2018). Research on Four-Year Progressive Innovation and Entrepreneurship Education in Universities: Taking Sichuan University of Arts and Science as an Example. Continuing Education, 5, 10-12.
- Zhou, Q. (2009). The construction and operation of entrepreneurship education mode for college students: experience from Ningbo University. China Higher Educ. Res. 4:84.
- 11. Robinson, P. B. Sexton, E.A. The Effect of Education and Experience on Smalland Entrepreneurial Success. Journal of Business Verturing (2014), p. 141 156.
- Semra Guven. World Conference on Educational Sciences New primary education course programs and entrepreneurship. Procedia Social and Behavioral Sciences (2009), pp 265-270.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

