

Computer Assisted Entrepreneurship Education in Chinese Universities

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Abstract

The paper puts forward a new educational model, namely computer assisted entrepreneurship education which is based on various cases of entrepreneurship talents cultivation in Chinese Universities. First it highlights computer database to serve cultural and economic development. Then it introduces entrepreneurship education to meet challenges through regression analysis method to predict the demand of Chinese entrepreneurs after university students' graduation; next it analyzes practice for entrepreneurship education model and cites e-commerce major as an example; thereby it specifies reform in talents cultivation as well as entrepreneurship education in practice. Finally some evaluations and problems are given based on entrepreneurship education practices of Chinese Universities. Namely Chinese Universities will lay emphasis on entrepreneurial ability, combine talents cultivation with regional economy development, expand and promote cross-culture so as to achieve the fostering goal for interdisciplinary talents who will not only obtain employment and entrepreneurship but also serve regional economy.

Keywords

Computer, Entrepreneurship Education, Talents Cultivation, Chinese Universities

1. Introduction

Higher education is the cornerstone of national rejuvenation while entrepreneurship education talents are foundation of internalization. After thirty years of reform and opening up, China has made great achievements in higher education development and thus attracts people's attention throughout the world and all levels of higher education have achieved a historic leap. So far Chinese higher education gross enrollment rate has reached 57.8%, hence university students

scale ranks first in the world. After rapid development, both public and private universities in China have consciously or unconsciously entered the stage of adjustment (Kuhn, 2006). Chinese universities invariably achieve national economic growth by persisting in reform and innovation, persisting in turning the strategic thought of scientific development and taking practical action to make efforts to explore economic characteristics of modern time (Pearce & Kerry, 2005). Based on characteristic of Chinese higher education research and discipline, Chinese universities have made further development in international disciplines to enrich computer database, adjust economic direction and reconstruct talents cultivation. It has also enhanced ability of sustainable development in regional economy-oriented talents cultivation of entrepreneurship education and has made some beneficial explorations in terms of regional economic practice and research in higher education development.

2. Highlighting Computer Assisted Talents Cultivation to Serve Regional Economy

As entrepreneurship education resource, Chinese higher education holds unique conditions for the development of regional economy. However, entrepreneurship education has been bigger influence on economic and cultural development (Glytsos, 2005). In the past, we have only seen culture as the superstructure instead of economic development. In fact entrepreneurship education not only make culture prosperous but also bring higher education develops quickly. The more economically advanced China becomes, the larger proportion its entrepreneurship education serves, which needs more computer database to support. In light of computer database talents cultivation of entrepreneurship education will accelerate regional economy. In some of European countries the value created by entrepreneurship education accounted for the first of its gross domestic product, exceeding other industries. There are one third of the world's secondary industry programs and half of the third industry programs produced by university entrepreneurship education and their talents cultivation become the largest influence on the world. More and more countries started to emphasize entrepreneurship education in light of computer database to spread its brand throughout the global culture while getting a huge economic benefit. Some of European educators ever admitted that the annual income of all kinds of goods from entrepreneurship education can be beneficial to their economy, culture and education from the perspective of talents cultivation. Throughout university entrepreneurship talents market in the world, the proportion of United States accounted for 43%, the EU accounts for 34% and Asia-Pacific region accounts for only 19%, in which China accounts for 5% in total, which means talents cultivation of entrepreneurship education in Chinese universities has apparently been far behind European and American universities.

Based on computer database research and adequate preparation, many Chinese universities initiate to hire well-known experts, professors, writers, artists with extensive practical experience in entrepreneurship education experience,

forming integration of internal and external combination to be committed to cultivation of entrepreneurship education talents (Wang, 2008). According to different need, Chinese universities begin to establish computer database and research institutions. So far Chinese universities have established their computer database such as talents database and computer department, which has achieved an gratifying momentum of increase in entrepreneurship education to serve regional economic development.

3. Developing Entrepreneurship Education to Meet Challenges

Currently the world has entered a higher stage of higher education innovation and entrepreneurship education has become “Third Passport” of education after cultural and economic education, which serves as educational development direction in the world and provides inevitable choice of Chinese higher education reform in the 21st century. Entrepreneurship education not only embodies the meaning of quality education but also pays attention to the practical ability of foreign language talents cultivation, which, in turn, changes Chinese university students’ employment idea and promotes awareness of their entrepreneurship skills. With continuous expansion of Chinese universities’ educational resources and adverse effects of global financial crisis, the survival and development space of higher education becomes very limited. In the inevitable competition, Chinese universities have to take initiatives to meet challenges, and actively explore foreign language talents to seek new growth.

Chinese universities mainly perceive young backbones of enterprises as the main training targets so as to cultivate more innovative entrepreneurship talents for enterprise as the goal. Firstly Chinese universities will introduce successful cases in entrepreneurial alumni to organize entrepreneurial elite classes. They may organize Alumni Association and strengthen training of corporation governance and risk investment to improve the business, management and operational capabilities. Secondly Chinese universities will be targeted to train entrepreneurial students and organize entrepreneurship education classes. They may conduct entrepreneurship training in addition to the original course of study on the basis of increasing practical aspects of entrepreneurship. Thirdly Chinese universities may carry out HP style entrepreneurship education, create entrepreneurship compulsory courses, and gradually establish perfect system of higher education teaching courses, penetrating entrepreneurship education into the regular education system so as to promote students’ cross-cultural awareness of entrepreneurship. It holds the idea that Chinese universities’ entrepreneurship should create jobs through entrepreneurship education training and exercises to enable students to acquire comprehensive skills needed for professionalism (Zhang, 2007), enhancing students’ sense of identity and making universities truly become incubators of innovation, entrepreneurship and employment in regional economy.

Now we use Regression Analysis Method to count the demand of Chinese entrepreneurs after university students' graduation. Here we have to consider the number of annual employment number after graduation from Chinese universities in light of computer database. We have established a linear regression model to solve parameter prediction problem which is shown in **Table 1**.

It is calculated that:

$$\hat{b}_2 = \frac{\sum_{i=0}^{n-1} (G_i - \bar{G})(x_2(i) - \bar{x}_2)}{\sum_{i=0}^{n-1} (x_2(i) - \bar{x}_2)^2} = 0.0105 \quad \hat{a}_2 = \bar{x}_2 - \hat{b}_2 \bar{G} = -738.70$$

$$\bar{G} = \frac{1}{n} \sum_{i=0}^{n-1} G_i = 31.94 \quad \bar{x}_2 = \frac{1}{n} \sum_{i=0}^{n-1} x_2(i) = 736.72 \quad (1.1)$$

Here we may use linear regression method to find entrepreneur prediction equations as follows, while the inspection quantity can be shown.

$$R^2 = 0.9002 \quad \hat{x}_2(t) = \hat{a}_2 + \hat{b}_2 G(t) = 0.0105G(t) - 738.70$$

Based on sample values in **Table 1** we may use extrapolation method to get available extrapolation value from 2022 to 2027. Then we substitute them into Formula (1.1) to get prediction number of entrepreneurs $\hat{x}_2(t)$, which is shown in following **Table 2**.

From **Table 2** we come to know that entrepreneur number in the future years will be an increasing trend which proposes that more entrepreneurship education have to be implemented in cultivation of entrepreneurship education talents so as to serve regional economy.

4. Practice for Entrepreneurship Education Model

Here a new Educational Model for entrepreneurship which is called Major Plus Entrepreneurship in cultivation of entrepreneurship education talents is put forward and implemented in Chinese universities.

Table 1. Statistic of annual employment number and entrepreneur number after graduation (Unit: Ten thousand).

t year	2015	2016	2017	2018	2019	2020	2021
Employment Number $G(t)$	737.40	744.32	752.00	758.25	764.00	769.90	774.80
Entrepreneur Number $x_2(t)$	13.4	16.6	20.0	27.3	38.4	47.4	60.5
Fitted Value $\hat{x}_2(t)$	8.2	15.4	25.1	32.6	39.8	47.9	54.5

Table 2. Regression analysis prediction number of entrepreneurs (Unit: Ten thousand).

Year	2022	2023	2024	2025	2026	2027
$\hat{x}_2(t)$	102.91	109.64	116.43	123.27	130.17	134.86

E-commerce will be cited as an example in China, which is popular with more than 300 universities so far since the knowledge structure of electronic commerce talents must have adequate complexity and applicability. Not only do they need to understand information technology and business knowledge, but more important they should grasp the knowledge and foreign language ability to apply information technology to business fields. However the cultivation of electronic commerce talents is to nurture technical talents that focus on website design at present, vice versa it is to nurture business talents that focus on international network marketing. Consequently the cultivation of electronic commerce talents will have to integrate major study with foreign language ability to serve regional economy in four stages of undergraduate education. In the first year university students will carry out specialized curriculum and increase foreign language education. In the second year university students will combine specialized curriculum to attempt to seek entrepreneurship program, implement market research and evaluate entrepreneurship program. Then partial matured program may become the early entrepreneurial practice activities. In the third year university students should finish specialized curriculum at the same time under the leader of entrepreneurship supervisor since the major task in this period is completely inspecting the effectiveness of entrepreneurial practice and making decision for the next development. During the fourth academic year local business enterprises should create conditions and corporate entities of economic internship for those who are determined to develop entrepreneurship. Through four-year practice it will enrich university students' horizon and further make them understand the truth of enterprise operations so as to serve for regional economy.

5. Reform in Regional Economy-Oriented Entrepreneurship Education Talents Cultivation

According to above mentioned, the main idea of regional economy-oriented talents cultivation of entrepreneurship education is to reduce theoretical curriculum, expand practical curriculum and increase entrepreneurship education curriculum which supports entrepreneurship to serve economy-oriented talents cultivation. As regard to Chinese universities, there are five stages: 1) The first is to set up curriculum which is related to entrepreneurship education, such as entrepreneurial simulation, entrepreneurial laws, entrepreneurial marketing etc. 2) The second is to guarantee students' entrepreneurial practice, especially create conditions conveniently to pursue online entrepreneurial practice. 3) The third is to establish the practice teaching base and make guidance for students. 4) The fourth is to reform curriculum of talents cultivation and teaching method. In extracurricular practice, university teachers will lead students to actual marketing experience in enterprises. 5) The fifth is reconfiguration of enterprise teachers, inviting entrepreneur as part-time supervisor in universities.

Nowadays the model of economy-oriented talents cultivation of talents culti-

vation will be a new trend in Chinese universities though the model can be diversified since universities students may accumulate experience both in entrepreneurship education and entrepreneurship database. Chinese university students may effectively connect professional knowledge and practical competence with entrepreneurial practice for a better consequence of serving for regional economy.

However, the following points need to be paid attention to:

First, proportion of entrepreneurship curriculum covered in general curriculum should be distributed properly, which is based on the early entrepreneurial education. Later it can be increased gradually in order to avoid being incompatible with teaching practice.

Second, universities may improve managing level through incubation departments of local governments to implement and manage problems in entrepreneurship project.

Third, universities may sign talents cultivation contract with enterprises to solve financial scarcity problem.

6. Summary

Chinese universities are faced with the new situation, new problems and new tasks of internationalization in the new century. Many Chinese universities try to solve the problems in combination of talents cultivation and computer database development, which has made a new progress in the exploration of local economic development.

With rapid development of Chinese economy and upgrading of international status, the spreading of Chinese economy and culture begin to attract more and more world attention. The sustainable development of Chinese universities cannot be separated from regional economy.

Future talents cultivation of Chinese universities will be targeted at a positive contribution to expanding educational resources of computer database, promoting educational equity, relieving employment pressure and stimulating domestic demand and local economic growth. From the above perspective computer assisted talents cultivation of entrepreneurship education can be regarded as an innovative education model in Chinese Universities.

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Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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