

# Reference of Foreign Innovation Entrepreneurship Education Development on the Domestic Education Reform under Internet Circumstance-Taking E-commerce as an Example

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**Abstract.** Popular Entrepreneurship and Innovation marks a new stage in innovation and entrepreneurship education that drives employment through entrepreneurship and promotes economic restructuring. In the Internet circumstance, the high rates of Internet penetration, the information updated quickly, facing the tide of new economy, new industry and new formats, it is not only opportunities but also challenges for innovation and entrepreneurship education; colleges need to combine the existing environment to reform the innovation and entrepreneurship education. This report via analyzing practical experience and advanced concepts of American innovation entrepreneurship education to China, Combine with the current development hot spot and base on the college's eyes sight, provide the recommendation to domestic innovation entrepreneurship education reform.

# Introduction

According to the "China Internet Development Report 2018" data, the number of Chinese denizens reached 772 million. In 2018, the Internet completed business income of 685.8 billion Yuan, with year-on-year growth of 19. 4% [1]. At present, as a kind of mass media of information society, the Internet has gone deep into all respects of the society and has greatly influenced student's studying and learning. Internet education has gradually changed traditional educational pattern, including the educational ideal, educational pattern, education platform, curriculum setup, curriculum standards construction, curriculum evaluation system are transforming. New form of education and learning is an important part in internet supported technology of network. The innovation education and entrepreneurship, which is especially the important method to train the full talents in the university students. Therefore, how to construct a curriculum system of innovation and entrepreneurship education with scientific, advanced and applicability is a breakthrough to deepen educational reform in universities.

# The Analysis of education in Innovation and Entrepreneurship between American Universities and China Colleges

Tan and Yan (2018) stated that American innovation and entrepreneurship education originated relatively early, Professor Jeffry A. Timmons, the father of Entrepreneurship Education at Babson Business School, said that "in the last 20 years of 20th century, entrepreneurs and innovators have

completely changed the economy of United States. More than 95% of the wealth in the United States today has been created by the entrepreneurial generation of great change since 1980 and this is an astonishing number "[2]. Xu and Shi(2016) indicated Innovation and entrepreneurship education for American college students, the students' innovation and entrepreneurship education is regarded as the "direct driving force" of national economic development. The famous company like Netscape and Yahoo is founded amid this environment [3].

According to numerous documents (Chen, 2018; Shi and Tian, 2018; Hu, 2017; Katz, 2003; Seymour, 2001), the success of foreign innovation and entrepreneurship education comes from the integration of innovative entrepreneurship courses and professional courses in different departments [4,5,6,7,8] Professor (McMullan) et al., Professor David Silver of the United States support this argument by stressing that strengthening the integration of innovation, entrepreneurship education and professional education can help to avoid Entrepreneurial risks to improve the competitiveness of students' entrepreneurial employment. Information from MIT website about innovation and entrepreneurship education shows that innovative entrepreneurship education with professional background can effectively promote students to succeed in their fields, and also provide intelligence for the development of innovative entrepreneurship education. Chen (2018) has demonstrated that American research in this area is relatively advanced, and there are now many monographs combining innovation and entrepreneurial knowledge with professional knowledge [4], among them, the book "Entrepreneurial path" written by Richard Dorf and Thomas Byers's are the products of combination of entrepreneurial and professional knowledge, which is also referred as the educational material for the innovation subject of Stanford University School of Engineering. The success of American innovation and entrepreneurship education is mainly reflected in the following three aspects:

First is that practical experience in the integration of innovation and entrepreneurship education with professional education. Foreign universities have set up innovative and entrepreneurial degree programs, while training innovative entrepreneurs, university should incorporate the curriculum that training professional technical ability, then, embeding the concept of innovation and entrepreneurship in professional courses to form distinctive innovation and entrepreneurship courses. Chen (2018) reviewed the integration of innovation and entrepreneurship education with professional education in foreign universities as of March 2017, 181 universities in the United States have set up entrepreneurial research interests, Among them, 33 universities have established special entrepreneurial Ph.D. program, while 21 universities have set up entrepreneurship research in the Ph.D. training system [4]. American universities have two generality in the integration of innovation & entrepreneurship education and professional education: First, application skills and professional education are complementary, which emphasizes both theory and practice. Foreign universities provide targeted innovation and Entrepreneurship for different professional academic courses. The second is to focus on the complementarity of interdisciplinary, to promote the integration of disciplines, and encourage students to independently learn innovative and entrepreneurial courses.

Second is that practical experience of the construction of teaching teams in higher education. Teachers' construction reform is carried out through hiring teachers with profession enthusiasm, and many deep related technique backgrounds, to provide students with more professional and constructive guidance. Tan and Yan (2018) discussed the Babson Business School situation, among the full-time teachers, 50% of the teachers have entrepreneurial experience, and 25% of the teachers have corporate job experience. Among the part-time teachers, 70.59% of the teachers have entrepreneurial experience, and 97.06% of the teachers have corporate job experience. Zhou (2015) indicated Andrew S. Grove, who is Intel Chairman as well as lecturer in entrepreneurship at Stanford Business School, He teaches one or two innovation courses a year. The strong faculty is one of the reasons why the entrepreneurship rate reaches 20% to 30% in American university students [9].

Third is that practical experience in building innovative and entrepreneurial platforms. In Stanford, for example, Xu and Shi (2016) claimed that the university built the Innovation and

Entrepreneurship Network (SEN) and a platform dedicated to innovative entrepreneurship projects[3]. SEN integrated resources such as different college majors, technology transfer and student organizations to support students' innovation and entrepreneurship activities, and promotes the research and development of interdisciplinary innovation and entrepreneurship education. At the same time, through the absorption of SEN's alumni resources and social resources, the promotion of innovation and entrepreneurship education and entrepreneurial environment is been optimized and integration of innovation and entrepreneurship education and professional education is been deepened.

Compared with American, the development of innovation and entrepreneurship education in Chinese universities started relatively late. The relevant data shows that the proportion of college students' entrepreneurial failure is very high, According to Lan, Song and Yan (2019) statistics, more than half of the students after graduate quit entrepreneurial filed after three years. Even in the entrepreneurship better environment province, such as Zhejiang, the entrepreneurship success rate of the college student is just only 5%. On the contrary, the relative statics display the success rate of American college student can reach 20%-30% [10], thus the education model and concept are still needed to be explored. Zhang (2018) introduced that E-commerce is one of the majors closely related to the development of the Internet, and it is also the most suitable for combining innovation and entrepreneurship education with social practice [11]. Taking E-commerce as an example, this paper discusses how to integrate professional courses into innovation and entrepreneurship education, how to organically combine the two and how to reform their own systems with better education models.

The delay during the practical process leads to the domestic innovation and entrepreneurship education in colleges having not been well integrated into the professional curriculum. There are few problems in the following aspect:

Firstly, the course system of innovation and entrepreneurship course of E-commerce major is not complete. As E-commerce involves a wide range of knowledge and E-commerce market is changing fast, e-commerce innovation and entrepreneurship education must follow the market to enable students to access the new knowledge and understand the new field. But the learning content and market demand of e-commerce innovation and entrepreneurship education are not balanced. The innovation and entrepreneurship in most of colleges and universities still apply a traditional and old content. Many students lack of entrepreneurship concept and don't understand the entrepreneur process and lack of understanding over E-commerce operation. In addition, the form of innovation and entrepreneurship practice platform, which mainly focuses on innovation and entrepreneurship competition, is relatively simple. There is no combination between the course with social practice and internship and etc. Furthermore, the key factor for the success of college students' entrepreneurship is whether they have innovation consciousness. However, many universities pay too much attention to the students' innovating ability rather than the cultivation of innovation consciousness and positive guidance, which leads to the loss of original power for students.

Secondly, E-commerce innovation and entrepreneurship education also lacks of teaching resource. Currently, most innovation and entrepreneurship mentors are working as part-time job, and even some of counselors are taking responsibility to guide students over innovation and entrepreneurship. These groups of people have not been trained well and professionally and their guiding ability is relatively weak. Their teaching method, that is too idealistic, is just to offer theories to students, which let students lack of practice and execution ability. Colleges and universities lack of experienced, professional teachers to provide students with the necessary innovation and entrepreneurship guidance.

#### Suggestions for the Reform of E-Commerce Innovation and Entrepreneurship Education

This paper sorts out the status of innovation and entrepreneurship education in the United States, compared with the situation of China's universities in innovation and entrepreneurship education are shown in the following Table1. China's Higher Education Reform can be divided into four types, which are complete, partial complete, incomplete and wholly incomplete.



### Table 1 Reform patterns of innovation and entrepreneurship education in United States

Country: University	Reform of innovation and entrepreneurship education	Reform patterns of innovation and entrepreneurship education	Whether Chinese universities comply or not
United States: Babson Business School	1.To focus on the training of teachers	From headmaster (Brain M. Barefoot) to leaders from dean's office (Michael L. Fetters), they are outstanding scholars in the field of American entrepreneurship.	Not completely comply
United States: Northern Virginia Community College	in innovation and entrepreneurship education	Up to 2,000 out-of-school experts were hired to teach practical courses. The university contact enterprises opportunity for young teachers to understand the actual operation and integrate their learning into their teaching.	Not completely comply
United States: Stanford University	2 Porforte courses	The innovative entrepreneurship course of Stanford University offers innovative entrepreneurship courses with different depth and for students at different levels.	Not completely comply
United States: New York University	2. Perfects courses of multi-level innovation and entrepreneurship system	For MBA students, a dual degree in Entrepreneurship and innovation has been established. In addition to major, students also need to take a core curriculum such as entrepreneurship foundation, and several optional courses, including "family business management", "global economic integration and entrepreneurship".	Not completely comply
United States: Harvard University	3. Forming a Typical Model of Innovation and	Focus mode: Harvard provided a pool of students from which the university chose carefully to achieve its objectives of innovation ability, and then train the students with practical entrepreneurial case activities	Partial complete
United States: New York University	Entrepreneurship Education	Consciousness Enhancement Model: This model emphasizes the consciousness of innovation and entrepreneurship to extended all aspects of learning and life	Partial complete
United States: Massachusetts Institute of Technology(MIT)	4. Establishing the system of Innovation and Entrepreneurship Education	On the basis of coordinating innovation and entrepreneurship resources both inside and outside the university, MIT has built a unique entrepreneurship education ecosystem from "creative ideas" to "incubation model", then to "product manufacturing", and finally to "create companies"	Wholly incomplete
United States: Stevens Institute of Technology	5. Training Program	Stevens Institute of Technology integrates innovation and entrepreneurship education into talent training programs.	Chinese Universities comply
United States: Stanford university	6.Practical Experience in the Construction of Innovation and Entrepreneurship Platform	Stanford University: It has a strong innovative entrepreneurship network (SEN) and a platform dedicated to innovative entrepreneurship projects.	Not completely comply

According to table 1, for the ""Not completely comply"" and ""wholly incomplete" to reform, the relevant suggestions can be come up with for reform e-commerce innovation and entrepreneurship education in China through introducing the practical experience and advanced concept from American education of innovation & entrepreneurship and combining the local environment of Chinese. There are five main suggestions in the following paper:



#### Improving the Curriculum System of E-Commerce Innovation and Entrepreneurship

E-commerce is a major that professional and practical, with many knowledge point. There are too many theories, but lack of practice operating. So the first consideration is how to perfect the combination of innovation-entrepreneurship and E-commerce, in order to guarantee innovation & entrepreneurship capability improve and practical foster act as the education mainstream. Suggestion these curriculum conclude two sides: the one is basic course, for innovation and entrepreneurship foundation theory education, case analysis, hot point issues of innovation & entrepreneurship, eliminate those backward content, create the combination of strong practicability and market trend oriented course;

Secondly, main course should including innovation & entrepreneurship relative laws, industry rules, team building, talent-leadership mode and evaluation of innovative results. According to the major characteristic, student quality and area economic forum to adjust curriculum establishment, to make more unique and personality, practicability education form;

Thirdly, set up "entrepreneurship operation and guidance" curriculum, combine E-commerce with entrepreneurship education. According to the new development trend of E-commerce industry, integrate content E-commerce, mass data application, and mobile internet marketing, and commercial creative modal into teaching standard; via frontiers of industry development integration, to cultivate the student's creativity. In Internet+ age, the entrepreneurship types not only focus on Taobao online store. So teachers need to guide the student to research more fresh and innovative internet entrepreneurship items. For example, "Internet+ agriculture", put special agriculture products, culture custom and rural tourism sells online; "internet+ education', put the video of famous lecturer sells online, and also for search online homework, online test, online home visit and more creative form;

Fourthly, by analyzing the requirement of the talent in E-commerce industry, construct an innovation and entrepreneurship system of E-commerce marketing; internet information technology and Taobao practical operate. For example, E-commerce marketing curriculum conclude marketing planning, product promotion, communication and negotiation, etc. ; Internet information technology curriculum conclude graphic images process, website construction, online selling and so on; Taobao practical course conclude how to open and operate Taobao store, decoration, promotion activities etc.

#### Take Full Use of Modern Technologies Like Internet to Explore the Teaching Resources

In the era of booming information technology, innovation and entrepreneurship education should make the curriculum system more perfection and reform the resource sharing of learning model. College need to by analyzing the internet's effect of course teaching and integrating the varieties of the teaching resource, to construct the open model of online classroom, make education reform in a deeper development. At first, by online and offline combination teaching method to lead students exploring the new knowledge, form a PBL( Problem Based Learning) teaching model based on OTO thinking, using Inter+ thought to realize the reform of innovation and entrepreneurship education curriculum; Promote the selection and online display of preeminent innovation education course, actively introduce and promote the Development and establishment of innovation and entrepreneurship Micro-courses. Teachers display the core knowledge of curriculum education on online teaching room, let students can look up knowledge information at any time; establish online open learning identification and corresponding credit recognition system boost the preeminent entrepreneurship education resource sharing. Establish a cooperation model of curriculum construction and teaching, encourage one course was joint taught by external and internal school teachers. In order to promote the comprehensive assessment of class homework, extracurricular work, academic papers, invention patents, research report, entrepreneurship planning, and curriculum exam;

Secondly, base challenge cup and Internet+ innovation & entrepreneurship match, Internet+ international trade technology match and other relative match platform. Organize student often take part in it, the working core is extend from completion itself to pre-completion training and after



completion conclusion, Establish a full-participation model of via completion boost learning, teaching and combination each other. Cultivate students 'awareness of innovation and entrepreneurship. During these processes, teachers need to carry out segmented entrepreneurship guidance to students, lead themselves collect and tidy varieties of entrepreneurship information via internet devices, and hand those entrepreneurship knowledge of life gradually.

# Strengthen the Construction of Practice Platform of Innovation and Entrepreneurship Education for E-Commerce Subject

In the context of Internet +, application-oriented colleges and universities need to combine innovation and entrepreneurship practice with E-commerce training, and establish a practical teaching platform, and constantly improve students' professional level and innovation and entrepreneurship practice ability. For example, it is necessary to strengthen the practical simulation training of innovation and entrepreneurship of college students in class. After going through the whole operating process from writing business plan to simulating innovation and entrepreneurship projects, students can deepen their understanding of personnel management, capital operation, and how to operate products and services in the market of innovation and entrepreneurship projects. In addition, the instructor can also leads the students to open online shop on Taobao.com or other third-party E-commerce platforms to sell products of cooperative enterprises to feel the real business environment;

Secondly, the entrepreneurial process involves various aspects. Therefore, the innovation and entrepreneurship education should be open, which needs the support from society. Application-oriented colleges and universities can cooperate with E-commerce enterprises to establish teaching practice bases and employment bases, to provide practice and training platforms for students' entrepreneurship and innovation. Through this platform, students can learn about the demand of employers for talents, the trend of the market and the development of the industry, which help students to expand their comprehensive ability and quality in practice. For example, some of the cooperative E-commerce business can allocate some business operation work to E-commerce entrepreneurial team on campus, like managing the website. In this way, the enterprise will be responsible for providing goods, and the E-commerce team will operate the website, do the network marketing, customer service and other works, so that students can perceive the innovation achievements in the process and build a foundation for future development. In addition, introducing the important qualification certification of enterprises into the classroom as an elective course and reinforcing the off-campus practice credit certification of innovation and entrepreneurship can not only truly combine the theory with practice, but also add powerful qualifications and certificates for students to graduate.

# Increase the Construction of Faculty Team of Innovation and Entrepreneurship Education for E-Commerce Majors in Colleges and Universities

The quality level of teachers is an important guarantee for educational reform. At present, colleges can fully integrate internal and external resources to build a teaching team with 'double-position teachers'. It is important to fully utilize the scientific and technological resources between universities, scientific research institutions along with enterprises, and reform the construction of the teaching staff team , and complete the introducing system of teaching resource, and introduce or hire industrial experts with internet-oriented awareness;

The universities can also invite the business entrepreneurs, managers, industry elites, legal consultants to build the guiding team offering professional guidance to students. Furthermore, universities should regularly organize innovative and entrepreneurial training for teachers and encourage teachers to hold some innovative activities such as industry-university-research collaboration with company to strengthen teachers' innovation awareness and quality. At the same time, teachers can go to relevant enterprises for temporary training, or start their own business to close to student team. It is necessary to break through the traditional teaching methods by applying opening teaching method to improve teaching abilities and quality. In addition, professional



teachers are encouraged to participate in the further training of innovation and entrepreneurship courses to enable teachers to be equipped with abilities of information skills and online teaching; Besides, universities should also set up corresponding incentive system for teachers and reform teachers' evaluation mechanism of innovation and entrepreneurship, so that teachers are more enthusiastic about the development of innovation and entrepreneurship education.

## Further Forward the Awareness of Innovation & Entrepreneurship and Competency-Oriented Education

Firstly, universities can cooperate with social places to cultivate the student's consciousness of innovation. Leading by the western countries' governments, science and technology museum is added into the innovation and entrepreneurship education reform, which becomes the "second education class" and entrepreneurship literacy education base. The weekends and summer and winter holidays can be made use of to organize intensive training for all the staff, to create a platform for students to learn popular science knowledge and enhance their innovative consciousness;

Beyond that, innovation and entrepreneurship awareness environment, like organizing science and technology competitions, career planning competitions and entrepreneurship forums to closely integrate innovation and entrepreneurship in practice, should be created. These measures can cultivate the ability of students to recognize the market as innovation and entrepreneurship need to have sensitivity over market and understand the market development trends and trends of various industries. In addition, it cultivates students' ability to start their own businesses based on the knowledge they have learned.

### Conclusion

Internet economy is fastest growing, and thus higher demand for training talents in colleges and universities. Correspondingly, as far as the requirements for teaching staff are concerned, it is more important to explore how to integrate professional teaching with innovation and entrepreneurship education, this proposes the reform of education. Educational reform in higher education institutions is the logical choice in the Internet era. Colleges and universities should be based on Internet thinking, updating of the idea in innovative entrepreneurship curriculum, restructuring its curricula system, improving the traditional teaching methods and perfecting education management system to fully promote the integration of innovation & entrepreneurship education and professional courses. These reforms are effective in improving the quality of talent cultivation, driving further promote mass entrepreneurship and Innovation.

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