

A Case Study of the Entrepreneurial Education in a Sino-Foreign University in China

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Abstract: This paper mainly focuses on entrepreneurial education in higher education. A case study is presented in this paper to investigate the current situation of entrepreneurial education in Chinese universities. The primary research method of this case study is interviewing. Four participants were interviewed in this paper, and they are students from the target Sino-foreign university, which was constructed by Xi'an Jiaotong University (XJTU) and Liverpool university in the UK. The results indicate that this Sino-foreign university provides a professional platform for students to establish their own businesses. Compared with other traditional universities, this university educates students with more innovative ideas and gives them more opportunities to practice their business' ideas. Moreover, this Sino-foreign university also designs entrepreneurship education as a module in students' learning activities. The students can join in the competition for earning a shop in the opening student entrepreneurship parks and start their businesses.

Keywords: entrepreneurial education, Chinese higher education, Sino-foreign university, case study, interviews, entrepreneurship parks

1. Background

The topic of this paper very attractive because a lot of Chinese students have no idea about entrepreneurial education before studying at this Sino-foreign university. It surprised me that there has a place on campus called Student Enterprise Park. There are many companies and enterprises created and owned by students at this university. I have noticed them several times, but I have no idea how those enterprises work. Thus, I decided to interview the students familiar with this specific area on the campus.

However, I found one problem: some of the shops there are not open to the public. And postgraduate student like me knows very little about this Enterprise Park. For investigating the working system of this Enterprise Park and the functions of the shops, this research mainly adopts the research method of interviews.

This study explores entrepreneurial education in higher education in China and foreign counties like the USA. A comparison between the target case university of XJTLU and the American University is presented in the analysis. Moreover, this study will focus on the existing problems of entrepreneurial education in Chinese higher education. The research questions are as follows.

2. Research questions

- 1. What kind of entrepreneurial education is provided by the target Sino-foreign university?
- 2. What can be the challenges faced by the student entrepreneurs?

3. Literature review

Entrepreneurial education

The meaning of being entrepreneurial is dissimilar for different people (Lackéus, 2015). Gartner (1990) believes entrepreneurship is innovatively producing an organization for creating values but not aiming at profits. However, based on this definition, Shane and Venkataraman (2007) argue that creating an innovative organization could not be included in entrepreneurship; it can happen in remaining organizations.

Moreover, entrepreneurship is "a process by which individuals – either on their own or inside organizations – pursue opportunities without regard to the resources they currently control" (Stevenson & Jarillo, 1990, p. 23).

Lackéus (2015, p. 9) states that the broad definition of entrepreneurship is about "personal development, creativity, self-reliance, initiative taking, action orientation, i.e. becoming entrepreneurial".

What definitions and methods are used will intensely influence the educational goals, focus on viewers, the content of curriculum design, the methods and approaches of teaching, and the evaluation procedures of students, resulting in an extensive variety of ways (Mwasalwiba, 2010).

Additionally, "Entrepreneurship is when you act upon opportunities and ideas and transform them into value for others. The value created can be financial, cultural, or social" (Moberg et al., 2012, p.14). Regarding the education field, entrepreneurial education is defined by Moberg et al. (2012, p. 14) as "Content, methods and activities supporting the creation of knowledge, competencies and experiences that make it possible for students to initiate and participate in entrepreneurial activities value creating processes".

Based on the scholars' opinions and statements, one of the critical characteristics of entrepreneurship is creating values.

Entrepreneurship is the transformation and acquisition experienced by an individual entrepreneur through interaction with the environment and the changes and values formation caused by the entrepreneur throughout their behaviour (Lackéus, 2015). Therefore, studying and value formation are the two critical features of entrepreneurship (Lackéus, 2015).

Allowing students to create values for external stakeholders will lead to their growth of entrepreneurial capabilities, irrespective of the value creation has been achieved successfully or not (Lackéus, 2015). Concerning the "Learning by doing" concept of the famous educational philosopher John Dewey, Lackéus (2015) suggests labelling it as a "learning by creating value" approach based on the entrepreneurial field (Lackéus et al., 2013). Regarding the research aims of this case study, the paper aims to figure out the current situation of entrepreneurial education in Chinese universities. Thus, the literature about higher education and entrepreneurial education in China will be discussed next.

Entrepreneurial education in higher education

The transformation of universities into "entrepreneurial universities" described in the pieces of literature has become an increasing trend (Etzkowitz 2014). This can be seen in dissimilar cultures and regions, both developed and developing countries (Etzkowitz 2014).

It is suggested that universities need to adapt quickly to change; otherwise, they may fall behind (Davey et al., 2018). Universities need to change the traditional methods by formulating guidelines and policies that provide a more entrepreneurial theoretical style, allowing students to cooperate and exchange their ideas through this innovative learning method (Davey et al., 2018). This could help students improve creativeness and interdisciplinary information to adjust to the changing world (Davey et al., 2018). *"If universities adjust and create these open learning settings, they will avoid specialisation and be better prepared for the global market"* (Davey et al., 2018, p. 16).

Entrepreneurial education in the USA

Mu (2006) points out that more than 1,500 four-year universities and colleges in the United States provide entrepreneurship courses. It can be said that almost all universities participating in the American university rankings have opened entrepreneurship courses (Mu, 2006). Entrepreneurial education has become an essential part of American university education and even extends to middle school education, like forming practices at different levels from middle school to university, and this entrepreneurial education system is still expanding and deepening (Mu, 2006).

Entrepreneurship education courses in many American schools revolve around an entrepreneurial plan (Zhang, 2006). Undergraduates of Babson College must take entrepreneurial education courses from the beginning of their first year (Zhang, 2006). Students should write entrepreneurial plans in groups under the guidance of teachers and receive start-up funds of US\$3,000 from the Entrepreneurship Education Center to conduct market research for customers, develop and sell products (Zhang, 2006). There will also have competitions between groups to see which group earns more money (Zhang, 2006). While students take entrepreneurship courses in the third and fourth grades, the Entrepreneurship Education Center provides students with incubator services and sets up an entrepreneurship seed fund (Zhang, 2006). Undergraduate entrepreneurship

teams and graduate entrepreneurship teams who are interested in starting a business can apply for between US\$5,000 and 20000, venture funds that vary between the U.S. dollar (Zhang, 2006).

It is evident from the statistics and evidence that the universities in America provide the students with various supports. The system of the case university is quite similar. Though, there also have the differences. The following paragraph will explain more information.

4. Method

According to Bryman (2012, p. 66), *"the basic case study entails the detailed and intensive analysis of a single case"*. Moreover, the case study research aims to figure out the complex nature of the case through research questions, and the case can be the form of *"a single community"*, *"a single school"* or *"a single family"* (Bryman, 2012, p. 66).

The primary research method in this paper is the unstructured interview. *"There may be just a single question that the interviewer asks. The interviewee is then allowed to respond freely, with the interviewer simply responding to points that seem worthy of being followed up"* (Bryman, 2012, p. 471). An unstructured interview is flexible and accessible for both interviewers and interviewees.

5. Findings

I interviewed four students in this paper. They are all students of XJTLU, including two males and two females. One of the males is a member of the Student Enterprise Development Association, and he is the minister of the Administration and Management Department. He needs to produce relevant publicity materials to provide online and offline publicity for the association and activities, manage the online official account platform, write-related tweets, shoot vents and video recordings. In this paper, he will be called Student W.

Another male, Student X, owns the one shop in Student Enterprise Park. Starting from high school, starting a business was written into his life goal. After entering XJTLU, he successively planned three entrepreneurial projects and experienced five entrepreneurial competitions, but the repeated setbacks did not make him give up. Today, the music studio he founded in XJTLU has nine core members, more than 40 signed part-time music producers, and has provided arrangement services for more than 7,000 musicians, including well-known musicians with nearly 10 million fans.

Student J participated in the entrepreneurs' competition held by the Career Development Office of XJTLU. And another female, Student H, is a member of the hip-hop club in XJTLU, and she bought the music demos from this music studio, and she recommends the other students-musicians to buy music products.

Before I interviewed them, I knew nothing about the Student Enterprise Park in XJTLU. After conducting the interview, I can connect the theories and knowledge learned with the practices.

6. Interviews with students

From the interview with Student W, many vital issues have been mentioned, including the working system of the Student Enterprise Park, the construction of the Enterprise Park, and the conditions for getting the right to use the shops in the park.

When talking about the working system of the Enterprise Park, Student W said: *"Students need to participate in the annual innovation and entrepreneurial competition, which is equivalent and open to every student who wants to use the shop to create their own company or enterprise. The students who win the prize can have the opportunity to use the shop in Student Enterprise Park, and the rent is free"*.

Moreover, the support and guidance from the university are also beneficial for students who want to learn and know more about establishing their own companies. The student W talked about several aspects, including inviting mentors, giving entrepreneurial scholarships, and providing professional consultation.

Student W added that: *"The help provided by the school is that we have an instructor who the school employs, he will give us some guidance, and then at the same time, he will often give the whole school teachers and students some entrepreneurship classes, and invite many compelling provincial entrepreneurs, very famous"*

entrepreneurs and entrepreneurs mentors for giving us some lectures, telling us some cases and examples about entrepreneurship mindset and knowledge including how to set up the project, what difficulties can be experienced in entrepreneurship, and the psychology help of entrepreneurship or the consultation of entrepreneurship. These activities help the school, giving students the opportunities to let them know more about the process of student entrepreneurship and how it can be established step by step. There are also entrepreneurial scholarships or project funds from research mentors”.

This policy is similar to American universities like Stanford University and Babson College, where the Entrepreneurship Education Centre provides students with incubator services and sets up an entrepreneurship seed fund (Zhang, 2006). They all provide students with funding and scholarships to start up their businesses. However, it is different from Babson College designed the whole entrepreneurial education curriculum for undergraduate students. In XJTLU, only the students who know this entrepreneurial support will apply for the scholarships or participate in the innovative and entrepreneurial competition. Thus, it is a must to discuss adapting wide application of entrepreneurial education in different subjects, departments, and colleges in Chinese universities.

Student J is a postgraduate student who participated in an innovative and entrepreneurial competition. From the interviews, I knew that most of the participants in this competition were undergraduate students. I was curious about why she wanted to create her own business and how she intended to settle the company down. Thus, the data will be presented for analysing the causes.

Student J received the email from the Career Development Centre, *“as far as I knew for a long time, students can open a shop in the school, and it was a crucial competition, the top few students in the competition could get the right to use this shop for one year without payment. I cooperated with a few of my former friends, they are very optimistic about the shops in XJTLU, and they think it is a huge potential opportunity”.*

She talked more about her business plan. Her project was bringing the beautiful certificate machine to campus. This kind of ID photo machine on the market can also be used to take photo stickers. It can be a 24-hour business in school and does not require human management. Built-in advertisements can also be sponsored to earn money. Theoretically speaking, this project can be implemented. Still, when participating in the competition, the participating jury felt that the technical content of this project was too few, and what they wanted was a very high-end project. For example, a more popular project is the intelligent translator of the School of Artificial Intelligence. Students and professors jointly develop this project at the school. This kind of science and technology will be more popular.

Like Stanford University, the students in XJTLU can cooperate with a mentor, usually the professors, but they can also be mentors outside the school. The mentors outside the schools are primarily outstanding leaders or entrepreneurs in a particular field. The students and mentors can develop and complete a project together, such as the AI brilliant translator mentioned by Student J. While completing scientific research projects, the students can also get the opportunity to start a business.

Student X has already won several competitions, and he owns the music studio in the Student Enterprise Park. In the interview, he pointed out that he started creating a local e-commerce website to sell local products in high school. However, it was difficult for high school students to run out of the company, and it finally failed. But he learned two things from this entrepreneurial experience: he wanted to start his own business and not create a new business again until he had enough experience, capital, and connections.

When talking about the first entrepreneurship inspiration in college life, he mentioned that the school invited him to participate in an entrepreneurship training organized by the Suzhou Municipal Government. He met some potential partners with the same vision. However, the team lacked the market experience, and they failed twice. After the failures, he started the music studio called “Less than Three Studios”. Based on his understanding and persisting of the music, he became a music producer and met another group of musicians on campus. Due to persistence, innovation, and unwillingness to give up, he won the competition with the first prize. And now, he is focusing on spreading culture and even creating his own culture and has cooperated with the music clubs to create their hip-hop music style, and more rappers have joined this cooperation. The profits are currently growing steadily.

7. The entrepreneurial competence

Student W believed that the entrepreneur should have the following competencies: *"I think the entrepreneur should first be good at observing and having strategic thinking, ability, innovation, and persistence."* Additionally, the characteristics of Student X, including persistence, self-ability, knowledge, and innovative idea, he finally succeeded after several times of failures. Table 1 shows the core entrepreneurial competencies.

Table 1: The core entrepreneurial competencies

	Main theme	Sub themes	Primary source	Interpretation used in this report
Cognitive competencies	Knowledge	Mental models	(Kraiger et al., 1993)	Knowledge about how to get things done without resources, Risk and probability models.
		Declarative knowledge	(Kraiger et al., 1993)	Basics of entrepreneurship, value creation, idea generation, opportunities, accounting, finance, technology, marketing, risk, etc.
		Self-insight	(Kraiger et al., 1993)	Knowledge of personal fit with being an entrepreneur / being entrepreneurial.
	Skills	Marketing skills	(Fisher et al., 2008)	Conducting market research, Assessing the marketplace, Marketing products and services, Persuasion, Getting people excited about your ideas, Dealing with customers, Communicating a vision.
		Resource skills	(Fisher et al., 2008)	Creating a business plan, Creating a financial plan, Obtaining financing, Securing access to resources
		Opportunity skills	(Fisher et al., 2008)	Recognizing and acting on business opportunities and other kinds of opportunities, Product / service / concept development skills
		Interpersonal skills	(Fisher et al., 2008)	Leadership, Motivating others, Managing people, Listening, Resolving conflict, Socializing
		Learning skills	(Fisher et al., 2008)	Active learning, Adapting to new situations, coping with uncertainty
		Strategic skills	(Fisher et al., 2008)	Setting priorities (goal setting) and focusing on goals, Defining a vision, Developing a strategy, Identifying strategic partners
		Entrepreneurial passion	(Fisher et al., 2008)	"I want". Need for achievement.
Non-cognitive competencies	Attitudes	Self-efficacy	(Fisher et al., 2008)	"I can". Belief in one's ability to perform certain tasks successfully.
		Entrepreneurial identity	(Krueger, 2005, Krueger, 2007)	"I am / I value". Deep beliefs, Role identity, Values.
		Proactiveness	(Sánchez, 2011, Mumieks, 2007)	"I do". Action-oriented, Initiator, Proactive.
		Uncertainty / ambiguity tolerance	(Sánchez, 2011, Mumieks, 2007)	"I dare". Comfortable with uncertainty and ambiguity, Adaptable, Open to surprises.
		Innovativeness	(Krueger, 2005, Mumieks, 2007)	"I create". Novel thoughts / actions, Unpredictable, Radical change, Innovative, Visionary, Creative, Rule breaker.
		Perseverance	(Markman et al., 2005, Cotton, 1991)	"I overcome". Ability to overcome adverse circumstances.

According to Lackeus (2014), the competencies are divided into three different themes. The sub-themes contain a variety of skills. From table 1, I find out that the interviewees mentioned or already have several competencies like innovativeness, perseverance, self-insight, entrepreneurial passion, and interpersonal skills.

Moreover, the staff and faculty in the university played the role of resources provider, instructors, and facilitators, and some of them are innovators. The students are more like the information-receiver, creators, innovators with self-driven, self-motivation, and self-interests. The most important thing is that they have enough knowledge and a good team.

However, from my observation, the other shops in Student Enterprise Parks operate poorly. Some of them will be replaced in the future, especially those with low turnover. *"University education is the most important condition for developing an innovation-oriented economy, and creating an innovation society requires the modernization of university education"* (Sołek-Borowska, 2018, p. 85). Furthermore, *"Entrepreneurship and innovation are widely regarded as an important basis for competitive advantage in a rapidly changing international business environment, enhancing the capabilities for sustainable business growth, economic activity and the wealth of nations"* (Sołek-Borowska, 2018, p. 87). Thus, it is a need for higher education to give students the opportunities and platforms to create values and help them to put innovative ideas into practice.

8. Conclusion

To sum up, XJTLU provides the platform, resources, entrepreneurial lectures, consultations, and competitions, where students can establish their businesses. All terms mentioned above are innovative and advanced compared with other traditional Chinese universities. This Student Enterprise Park and the design and ideologies around this entrepreneurial education and practice can positively affect the other universities. And this project can reflect that the innovation happened in Chinese higher education. The Chinese students are becoming more creative and excellent critical thinkers for facing uncertainty in the future.

Therefore, it is a need to expand the school's innovation and entrepreneurship education platform, combine entrepreneurial teaching into the framework of social practice and internship courses, opening student entrepreneurship parks, build entrepreneurship incubation bases, and provide necessary entrepreneurial guidance for individual and group entrepreneurship practices (Li & Lu, 2010). Moreover, expanding the off-campus innovation and entrepreneurship education service platform helps students get more exposure to society by signing an employment and entrepreneurship base for college students (Li & Lu, 2010). Innovation and entrepreneurship education need the support of an excellent social system (Li & Lu, 2010). The strengthening of the relationship between universities and enterprises provides internship opportunities for more students in social practice (Li & Lu, 2010).

The different stakeholders need to be aware that Entrepreneurial education is not only a mindset but also a 21st skill for the individual. Being innovative is about the learning attitude that everyone can be entrepreneurs or innovators with creativity, persistence, self-efficacy, and self-awareness.

Rui (2019) points out that with the publication of the 'China's Education Modernization 2035' by Chinese government, there are more emphasize and attentions on entrepreneurship education. This policy stressed the important position of universities to provide significant platform to Chinese students that they can receive enough entrepreneurship education to support their future careers plan and development (Rui, 2019).

Therefore, the government also plays an important role in improving entrepreneurship education in Chinese higher education. This policy also stressed out that the importance of training students' ability of creativity and apply the new technology and modern educational approaches to rise students' entrepreneurship awareness and help them to solve the problems (Rui, 2019). The financial investment from both local government and universities will be increased in the future. For instance, there are many enterprises cooperated with this Sino-foreign university to provide job opportunities and some of them are financed by local government. There are also career center and each department have their own curriculum design of EE based on the characteristics of the majors.

Therefore, the suggestions for applying EE in other Chinese universities, following suggestions can be taken (Rui, 2019).

- Reform the ideas of entrepreneurship education in colleges and universities.
- Adhere to the cultivation of innovative talents to improve the quality of training, improve the deficiencies of entrepreneurship education, and reform the content of education.
- Entrepreneurship education needs government support. The government can provide resources and platforms so that students can have more opportunities.
- Supervise the training of teachers in entrepreneurship education and strengthen the quality construction of entrepreneurship education in colleges and universities.
- Optimize the curriculum setting of entrepreneurship in colleges and universities, increase the investment and budget of entrepreneurship education funds, encourage, and help students to start their own businesses, and reduce restrictions and burdens.

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