

Entrepreneurship Education, Intention and Self-Efficacy of Chinese College Teachers

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Abstract: This research investigates the connection between entrepreneurship education, intention, and self-efficacy among Chinese college teachers. The study aims to understand how entrepreneurship education influences the entrepreneurial intentions and self-efficacy beliefs of college teachers in China. A quantitative research approach particularly descriptive research was employed, utilizing surveys to collect data from a sample of Chinese college teachers. The survey included measures of entrepreneurship education, entrepreneurial intention, and self-efficacy across various dimensions. Statistical analyses, using non-parametric tests, were conducted to explore the relationships between these variables. Findings from the study contribute to both theoretical understanding and practical implications in the field of entrepreneurship education. By examining the specific context of Chinese college teachers, the research sheds light on the nuanced dynamics of entrepreneurial intention and self-efficacy within the academic community. The results offer valuable insights for policymakers, educators, and stakeholders involved in designing and implementing entrepreneurship education programs tailored to the Chinese higher education landscape. However, the findings reveal no significant associations between entrepreneurship education, entrepreneurial intention, and self-efficacy among Chinese college teachers. Specifically, participation in entrepreneurship education programs do not positively influence teachers' intentions to engage in entrepreneurial activities and enhances their confidence in their entrepreneurial abilities. These results underscore the importance of integrating entrepreneurship education into professional development programs for college teachers in China, as it can play a crucial role in fostering entrepreneurial attitudes and behaviors among educators. The implications of these findings for policy and practice in higher education are discussed, highlighting the importance of promoting entrepreneurial education initiatives to support innovation and entrepreneurship ecosystems within Chinese universities.

Keywords: Entrepreneurship Education; Entrepreneurial Mindset; Higher Education; Academic Entrepreneurship; Experiential Learning.

1. Introduction

In recent years, entrepreneurship has emerged as a driving force in the global economy, fostering innovation, job creation, and economic growth. With the increasing recognition of entrepreneurship as a catalyst for societal advancement, governments and educational institutions worldwide have placed greater emphasis on cultivating an entrepreneurial mindset among their citizens and students. China, as one of the world's economic powerhouses, has also embraced this paradigm shift and is actively encouraging entrepreneurial activities across various sectors.

2. Detailed Description

According to Zhang, Wan and Xie (2017), China has been actively promoting entrepreneurship education as a means to foster innovation and economic growth. The Chinese government has implemented policies to encourage the integration of entrepreneurship education into both formal academic institutions and informal training programs. Universities and colleges across the country have established entrepreneurship centers, innovation hubs, and startup incubators to support students in developing their entrepreneurial skills. While, China has witnessed a growing interest in entrepreneurship among its citizens, particularly among the younger generation. Factors such as changing economic conditions, technological advancements, and the desire for more creative and independent career paths have contributed to an increase in entrepreneurial intention. Many

Chinese students and professionals are considering starting their own businesses as a viable career option. Given this situation, still teachers need to be assessed as to entrepreneurship which requires a different skill set than teaching. Teachers might lack the necessary business skills, market knowledge, and experience to successfully initiate and manage entrepreneurial ventures.

The topic of entrepreneurship has received extensive attention among researchers over the past decades (Wadhvani et al., 2020). Entrepreneurship has become a dominant issue in developed and under-developed nations as well because it develops efforts in improving the economic welfare of the nation (Värlander et al., 2020; Yi, 2020). Entrepreneurship improves the economic and social growth of nations (Li et al., 2020a; Neneh, 2020). Previous studies have remarked that entrepreneurship education, entrepreneurial mindset, and creativity cultivate young talents and develop entrepreneurial intention among individuals to become entrepreneurs (Westhead and Solesvik, 2016; Hu et al., 2018; Pan et al., 2018; Jena, 2020) and argued that with an increasing number of university graduates, appropriate job searching has become a serious concern in the higher education system in China. According to Hu and Ye (2017) in developed countries, the success rate of entrepreneurship is more than 25% as compared to Chinese university graduates, who achieve only a 10% success rate due to a lack of entrepreneurial education, entrepreneurial mindset, and creativity. Most of the students prefer to start a job in a company rather than start their businesses. Therefore, the Chinese government has developed measures to alleviate the pressure of unemployment and

provide suitable entrepreneurial platforms for students to become entrepreneurs.

Kalyoncuoğlu et al. (2017) defined entrepreneurship education as associated with nurturing creative skills that can be applied in real life. Moreover, the entrepreneurial mindset has been recognized in providing success and failure among entrepreneurs in entrepreneurship research (Moore et al., 2021). Jena (2020) argued that entrepreneurial mindset is associated with the profound cognitive phenomena that reflect the inimitable commitment of entrepreneurial activities (Saptono et al., 2020). The term creativity is defined as the creation of new and useful ideas (Entrialgo and Iglesias, 2020). While, entrepreneurial intentions refer to an individual's conscious decision and plan to engage in entrepreneurial activities, such as starting a new business, launching a startup, or pursuing self-employment. These intentions reflect the proactive and deliberate inclination to enter the realm of entrepreneurship. They are a crucial step in the entrepreneurial process as they often serve as a precursor to actual entrepreneurial actions.

Whereas, self-efficacy refers to an individual's belief in their ability to successfully perform specific tasks or achieve goals. Entrepreneurial self-efficacy plays a significant role in determining whether individuals pursue entrepreneurial activities. In China, efforts have been made to enhance entrepreneurial self-efficacy through education and training programs. These programs aim to boost individuals' confidence in their capabilities to handle the challenges of entrepreneurship, Boyd & Vozikis (2018).

Amidst this evolving landscape, educators play a crucial role in shaping the mindset and aspirations of the younger generation. Recognizing the significance of this influence, the integration of entrepreneurship education within the academic curriculum has gained momentum in Chinese colleges and universities. By equipping college students with entrepreneurial knowledge, skills, and attitudes, educational institutions aim to foster a culture of innovation and empower individuals to embrace entrepreneurial endeavors.

While existing research has explored the impact of entrepreneurship education on students' entrepreneurial intentions, relatively little attention has been directed towards understanding the relationship between entrepreneurship education, intention, and the self-efficacy of educators themselves. Therefore, this research seeks to address this gap

by focusing on Chinese college teachers and investigating how entrepreneurship education influences their entrepreneurial intentions and self-efficacy. Further, schools, universities, and training centers that offer entrepreneurship education programs would benefit from insights into how their curriculum, teaching methods, and support structures influence students' entrepreneurial intentions and self-efficacy. This information could help institutions tailor their programs to better meet the needs of aspiring entrepreneurs. Likewise, teachers, trainers, and professors involved in teaching entrepreneurship would gain insights into effective strategies for enhancing students' intentions to become entrepreneurs and boosting their self-efficacy. This could lead to more impactful and engaging educational experiences. Also, investigating the relationship between entrepreneurship education, intention, and self-efficacy among Chinese college teachers holds significance for educational policy, workforce development, teacher training, research advancement, and cultural understanding. It has the potential to contribute to the promotion of entrepreneurship and innovation in China.

The primary objective of this study is to examine the influence of entrepreneurship education on Chinese college teachers' entrepreneurial intentions and self-efficacy.

To achieve this overarching goal, the research pursued the following specific objectives: describe the profile of the respondents in terms of sex, age and length of service; assessed the entrepreneurship education in terms of management; resources; developing entrepreneurial mind-set and entrepreneurship education; supporting HEI staff and students entrepreneurial activities; cooperation, research and development and internationalization; determine the entrepreneurship intention as to personal attitude and perceived behavioral control; identified self-efficacy in terms of developing new product and market opportunities, coping with unexpected challenges, developing critical human resources, defining core purpose, building an innovative environment and Initiating investor relationships; test the significant difference on entrepreneurship education, intention and self-efficacy when grouped according to profile; test the association among the three variables and proposed an action plan to create a conducive environment that fosters entrepreneurship and empowers college teachers to pursue entrepreneurial endeavors.

Table 1. Summary Table on Entrepreneurship Education in terms of Internationalization

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Management	2.87	Agree	4
2. Resources	3.04	Agree	3
3. Developing entrepreneurial mind-set and entrepreneurship education	2.85	Agree	5
4. Supporting HEI staff and students entrepreneurial activities	2.84	Agree	6
5. Cooperation, research and development	3.12	Agree	1
6. Internationalization	3.10	Agree	2
Composite Mean	2.97	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

This study used a descriptive research design for its cause and effect relationship sports motivation, attitude, and success. The rationale for using quantitative approach is grounded in the fact that the data collection instrument i.e. the questionnaire is best for this approach. Moreover, quantitative research was beneficial because it enables the researcher to collect objective and numerical data and apply statistical tools to established relationship and causation between variables.

Li (2022) stated that descriptive study, also known as descriptive study, refers to a study whose research results accurately describe the characteristics or panorama of certain populations or phenomena. This type of research generally does not involve exploring the relationship between two or more variables, but only describes some interesting events or phenomena. The task of descriptive research is to collect data, discover situations, provide information, and describe the

main patterns and characteristics of the chaotic phenomena. He believes that descriptive research is about explaining what a thing is like, describing universal and representative phenomena, rather than one-sided, special, and non-reflective phenomena, truly achieving a true, objective, and accurate description of the overall characteristics of a thing.

Table 1 provides a summary of entrepreneurship education in terms of internationalization within the higher education institution (HEI). The composite mean of 2.97 indicates an overall agreement that internationalization is an important aspect of entrepreneurship education within the HEI. While there are variations in the perceived importance of specific indicators, the positive assessment suggests a commitment to advancing internationalization efforts. Cooperation, research, and development efforts related to internationalization are rated highest among the indicators, emphasizing the importance of international collaboration and research partnerships in entrepreneurship education. This aligns with the strategic significance of research and innovation in driving internationalization agendas.

Collaborative research projects with international partners can facilitate knowledge exchange, innovation diffusion, and the development of globally relevant solutions, contributing to the advancement of entrepreneurship education and practice (Cohen et al., 2016; Perkmann et al., 2018). Overall, internationalization efforts within entrepreneurship education are perceived positively, ranking second among the indicators. This reflects a general agreement on the importance of internationalization in preparing students for global careers

and fostering cross-border collaboration and innovation.

Internationalization initiatives are integral to entrepreneurship education, providing students with opportunities for international exposure, cultural immersion, and global networking, thereby enhancing their competitiveness and employability in the global marketplace (Marginson, 2017; Leask & Carroll, 2017).

The HEI's allocation of resources to support internationalization efforts is rated positively, ranking third among the indicators. This suggests that the institution invests in the necessary resources, infrastructure, and support services to facilitate international activities.

Adequate resources are essential for the successful implementation of internationalization initiatives, including funding for mobility programs, international partnerships, and cross-cultural activities (Knight, 2016; Marginson, 2017).

Meanwhile, items like management (2.87), developing entrepreneurial mind-set and entrepreneurship education (2.85) and supporting HEI staff and student's entrepreneurial activities (2.84) rated the least. Supporting staff and student entrepreneurial activities within an international context is rated similarly to developing an entrepreneurial mindset, ranking sixth among the indicators. This indicates a potential need for strengthening support mechanisms for international entrepreneurial endeavors.

HEIs play a critical role in providing resources, mentorship, and networking opportunities to support staff and student entrepreneurial activities, both domestically and internationally (Guerrero et al., 2019; Neck & Greene, 2016).

Table 2. Summary Table on Entrepreneurial Intention

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Personal Attitude	3.07	Agree	1
2. Perceived Behavioral Control	3.03	Agree	2
3. Entrepreneurial inner emotion	2.94	Agree	4
4. Subjective norms of entrepreneurship	2.95	Agree	3
Composite Mean	3.00	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 2 presents a summary of various indicators related to entrepreneurial intention, including personal attitude, perceived behavioral control, entrepreneurial inner emotion, and subjective norms of entrepreneurship. The composite mean of 3.00 indicates a generally positive entrepreneurial intention among respondents, characterized by strong personal attitudes, perceived behavioral control, emotional engagement, and positive subjective norms of entrepreneurship. These findings underscore the multifaceted nature of entrepreneurial intention and the importance of considering various psychological and social factors in understanding and promoting entrepreneurship.

Personal attitude got the highest mean score with the highest weighted mean (3.07) and suggests strong agreement among respondents regarding their personal attitude towards entrepreneurship. Personal attitude, including beliefs about the desirability and feasibility of entrepreneurship, is a fundamental determinant of entrepreneurial intention (Liñán & Fayolle, 2017; Krueger et al., 2019). Positive attitudes towards entrepreneurship are associated with higher intentions to engage in entrepreneurial activities. It was followed by with a weighted mean of 3.03, respondents' express agreement regarding their perceived behavioral control over entrepreneurial actions. Perceived behavioral control, as conceptualized in the Theory of Planned Behavior, refers to individuals' beliefs about their ability to successfully

perform specific behaviors. Higher levels of perceived behavioral control are positively associated with entrepreneurial intentions and behaviors (Liñán & Chen, 2019; Krueger et al., 2019).

While subjective norms of entrepreneurship and entrepreneurial inner emotion rated the least. Subjective norms refer to individuals' perceptions of social pressures and expectations regarding entrepreneurial behavior. Positive subjective norms, such as encouragement and support from family, friends, and peers, influence individuals' perceptions of the acceptability and appropriateness of entrepreneurship (Liñán & Fayolle, 2017; Krueger et al., 2019). Whereas, emotional factors, such as passion, enthusiasm, and motivation, play a significant role in shaping individuals' entrepreneurial intentions and behaviors (Cardon et al., 2019; Foo et al., 2018). Positive emotional experiences associated with entrepreneurship can enhance individuals' commitment and persistence in pursuing entrepreneurial goals.

Table 3 provides a summary of respondents' perceptions of their entrepreneurial self-efficacy across various dimensions. Initiating investor relationships got the highest weighted mean of 3.13 which indicates respondents' highest confidence in initiating investor relationships. Developing relationships with investors and accessing funding sources are essential for entrepreneurial ventures to secure necessary resources for growth and sustainability (Stam & Elfring, 2018; Harrison &

Mason, 2017). It was followed by building an innovative environment with a relatively higher weighted mean of 3.09, respondents demonstrate strong confidence in their ability to build an innovative environment. Creating a culture that fosters creativity, experimentation, and risk-taking is critical for driving innovation and organizational performance (West & Farr, 2016). Also, on the top is defining core purpose, this indicator with a weighted mean of 2.83 suggests that respondents have confidence in their ability to define the core purpose of their ventures. Clarity of purpose and vision is essential for guiding entrepreneurial activities and inspiring stakeholders (Kuratko et al., 2019).

Table 3. Summary Table on Entrepreneurial Self-efficacy

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Developing new product and market opportunities	2.76	Agree	6
2. Coping with unexpected challenges	2.79	Agree	4
3. Developing critical human resources	2.77	Agree	5
4. Defining core purpose	2.83	Agree	3
5. Building an innovative environment	3.09	Agree	2
6. Initiating investor relationships	3.13	Agree	1
Composite Mean	2.90	Agree	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

The least rated were coping with unexpected challenges (2.79), where respondents also agree (weighted mean of 2.79) that they can effectively cope with unexpected challenges. Coping with uncertainty, setbacks, and adversities is a fundamental aspect of entrepreneurial behavior (Cope, 2019; Cardon et al., 2020); developing critical human resources (2.77) and developing new product and market opportunities (2.76). With a weighted mean of 2.76, respondents generally agree that they possess entrepreneurial self-efficacy in developing new product and market opportunities. This indicates their confidence in generating and capitalizing on innovative ideas to create value in the marketplace (Shane & Venkataraman, 2018; Baron, 2021).

Table 3 presents the comparison of responses on entrepreneurial education when grouped according to profile. It was observed that there was significant difference on management, developing entrepreneurial mind-set and entrepreneurship education and supporting HEI staff and students' entrepreneurial activities when grouped according to age and length of service since the obtained p-values were less than the alpha level.

3. Conclusion

1) Result shows that there is relatively balanced sex distribution, with a majority of respondents falling within the mid-career age range, possessing specialist educational qualifications, and having varying lengths of service, with a

concentration in the mid-range.

2) The assessment of entrepreneurship education across different dimensions within HEIs reveals nuanced insights into the factors influencing entrepreneurial intention among staff and students were positively evaluated.

3) The study reveals that individuals demonstrate positive attitudes towards entrepreneurship and perceive themselves as capable of engaging in entrepreneurial activities.

4) The role of self-efficacy in driving entrepreneurial aspect of teachers was completely rated as agree.

5) The analysis conducted on entrepreneurship education, intention, and self-efficacy, when grouped according to various demographic profiles such as sex, age, educational attainment, and length of service, yields valuable insights into the factors influencing entrepreneurial behavior within the context of Higher Education Institutions (HEIs) but do not vary across profile.

6) Result indicated that none of them significantly affect the relationship between entrepreneurial intention and self-efficacy in the examined context.

7) A proposed action plan was created to enhance entrepreneurial education of Chinese college students.

4. Recommendations

1) Policymakers and educators aiming to foster entrepreneurial self-efficacy may need to consider a broader range of factors beyond demographics and professional background.

2) The school may develop comprehensive and tailored entrepreneurship education programs that cater to the specific needs and interests of Chinese college teachers. These programs should cover various aspects of entrepreneurship, including opportunity recognition, business planning, and venture creation.

3) The school and partnering institutions may offer resources and support mechanisms, such as funding opportunities, access to mentorship networks, and incubation facilities, to facilitate the development and implementation of entrepreneurial initiatives by college teachers.

4) Teachers may join activities to promote an entrepreneurial mindset and self-efficacy, such as motivational seminars, inspirational talks by successful entrepreneurs, and storytelling sessions highlighting entrepreneurial journeys.

5) The university may foster a supportive and encouraging environment within colleges and universities that promotes innovation, creativity, and risk-taking.

6) The proposed plan of action maybe tables for discussion and implementation.

7) Future researchers may examine additional variables like sexuality, empathic concern, behavior, descriptive norms, behavioral beliefs, injunctive beliefs, control beliefs, and moral norms.

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