

The Impact of Entrepreneurial Environment on Entrepreneurial Intention of Chinese University Students: Entrepreneurial Self-efficacy as a mediator

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Abstract: This research explored how entrepreneurial environment impact on entrepreneurial intention, and how does entrepreneurial self-efficacy play a mediating role between entrepreneurial environment and entrepreneurial intention. In this research, 303sets of investigation data were collected, which were filled out by students from Chinese mainland to insure the accuracy and validity of statistical analysis, we calculated and analyzed the data by SPSS. The results indicates that entrepreneurial environment have certain significant effects on entrepreneurial intention. In addition, entrepreneurial self-efficacy has a mediating impact between entrepreneurial environment and entrepreneurial intention.

Keywords: entrepreneurial environment, entrepreneurial self-efficacy, entrepreneurial intention

1. INTRODUCTION

From last 30 years, we have seen a rich number of research on entrepreneurship and its key role on national economic growth. It has been widely recognized by scholars that despite the positive relationship between entrepreneurship and economic development. But there still lacks relative studies about the factors that drive it. Then what drives individuals' entrepreneurial intension to start their organizing activities?

Many traditional entrepreneurship studies illustrated that opportunity discovery and resource mobilization are the main driving factors. However, recent research mainly focuses on the Personality Characteristics of Entrepreneurs and entrepreneurial environment, which is different from the "discovery" view. Hoyos-Ruperto (2012) illustrated that entrepreneurship is affected by the relationships among entrepreneurial environment, enterprises and entrepreneurs self-talent.

The entrepreneurial activity needs to access to the abundant resources entrepreneurs need, garner support from external environment and generate enough commitment from

organizational stakeholders to realize the vision (L. Edelman, 2010). According to the above views, P. H. Phan in 2002 said that the entrepreneurial environment was considered as an important role of driving entrepreneurial intention.

Based on abundant and systematic theory literature, the mainstream of the entrepreneurial environment consists of two parts. The first view is environment-oriented, which considers the environment as an outside condition to which the enterprises must adapt (J. G. Hougland, 1980). The other perspective considers the entrepreneurial environment as an endogenous factor created by the strategic choices made by enterprises themselves (K. E. Weick, 1980). Both of them showed that environmental change leads to increased entrepreneurial intention. Apart from entrepreneurial environment, it has been proved by several scholars that the influence on the relationship between entrepreneurial intention and environment. In their views, it is possible to highlight the individuals' perception of their own skills and their competence to perform particular tasks, and which reflects a person's confidence in his or her own ability to succeed in such tasks (J. Kickul, 2008; A. Bandura, 1989).

However, there is no sufficiently convincible evidence that whether the influence of entrepreneurial environment on the entrepreneurial intention would be modified when people hold different self-efficacy. In addition, most of the existing research and studies aimed at western society instead of Asian area. In particular, the lack of data of Chinese people is ignorable. Besides, the data of existing research mostly comes from entrepreneurs and employees with entrepreneurial intention, which may be not that applicable when it comes to university students.

To address these gaps, this paper will analyze the relationship between entrepreneurial environment and intention, as well as the mediating role of self-efficacy between them based on the analyzed data of Chinese university students. By gathering and analyzing the questionnaires and secondary data, it is the innovative point to hypothesize that entrepreneurial environment has certain effects on Chinese university students' entrepreneurial intention.

2. LITERATURE REVIEW

The research of entrepreneurship was started in the Mid-18th century. Innovatively put forward for the first time by French economist Cantillon, the concept, entrepreneur, has been a major topic for many different academic area.

2.1 Entrepreneurial Environment

Nowadays, the discussion about entrepreneurial environment has been conducted by a large number of scholars from various perspectives. According to their research, the mainstream of the entrepreneurial environment consists of two parts. The first perspective is environment-oriented, which considers the environment as an outside condition to which the enterprises must adapt (Aldrich, 1979). The other perspective considers the entrepreneurial

environment as an endogenous factor created by the strategic choices made by enterprises themselves (Weick, 1979).

According to Phan(2004), entrepreneurial environment was regarded as one important factor of driving entrepreneurship. Scholars provided several different opinions about the dimension of entrepreneurial environment that promotes the entrepreneurship. Bruno and Tyebjee (1982) found 12 environmental factors that might facilitate entrepreneurship, which are access to VC(venture capital), entrepreneurs spirit, Skilled labor with technology, accessibility of suppliers, accessibility of customers, new markets, government influences, proximity of universities, land-use right, convenient transport, availability of supporting services and Living conditions.

Gnyawali and Fogel (1994) described entrepreneurial environment as a combination of factors playing a role in the development of entrepreneurship, and they grouped the environment factors into five parts: government policy, Social and economic development level, Technical barrier of enterprise, Financial support for entrepreneurship and non-financial support to enterprises. This five parts have been considered as a convincing conclusion of entrepreneurial environment. According to the above theories, this paper divided the entrepreneurial environment into five dimensions: financial support, government policies, education level, technical level and service quality, meanwhile, subdivided that five dimensions.

2.2 Entrepreneurial Intention

Intentionality is a state of mind directing an individual's attention towards a specific object or a path in order to achieve something. Entrepreneurial intention is a person's self-acknowledge conviction aims at either creating new values in existing business or setting up a new firm (B. Bird, 1988). Entrepreneurial intention is regarded as one of the important roles in entrepreneurship and the cognitive antecedent of entrepreneurial behaviors (J. L. Thompson, 2008). The literature on entrepreneurial intentions has rapidly emerged since the publishing of paper by Bird. Ajzen proposed the Theory of Planned Behaviour (TPB) and found that people's future behavior could be predicted by their real intention and attitude to perform it. TPB theory has been found as an effective and reliable predictor of actual behavior, which introduces the essential elements that the individual needs in order to demonstrate a particular behavior (I. Ajzen, 1980). TPB theory focuses on the key antecedents of intention such as subjective norm, perceived behavioral control and attitude towards behavior which have been widely tested in entrepreneurship research and to be a robust predictor of entrepreneurial intentions and behavior (M. V. Gelderen, 2015). Besides this, in 1982, Shapero and Sokol proposed the Model named Shapero's Entrepreneurial Events (SEE). SEE highlights the role of conditionality of entrepreneurial events, focusing on the field of perceived desirability, feasibility and propensity to act. During them, the "perceived desirability" means one's personal value system, the "perceived feasibility" includes financial support and potential

partners and the “propensity to act” prefers to a personal provision to act according to its own decision, which reflects the component deliberated on the intention. Actually, TPB and SEE overlaps each other. Their complementarity leads to the creation of acceptable construct which examines the entrepreneurial intention (K. Vukovic, 2017).

In this paper, according to several scholars’ discussion, entrepreneurial intention can be defined as the faith that one prepares to or intends to start a new career, which would drive one’s mind towards clear goals and promote one’s process of achieving the entrepreneurial goal (E. D. Pillis, 2013).

2.3 Effect of Entrepreneurial Environment on Entrepreneurial Intention

Through the analysis of existing entrepreneurial theories, the discussion of the relationship between entrepreneurial environment and entrepreneurial intention has different tendency.

For the assessment of entrepreneurial environment factors, Globe Entrepreneurship Monitor (GEM), the major model of this area, suggests that entrepreneurial activity responds to internal factors and external factors that intervene between the emergence and expansion of new firms (N. Bosma, 2008). Internal factors refer to the “Entrepreneurial Framework Condition or EFCs”, which may affect the creation and development of new corporations and include six main parts: international trade inclusiveness, access to infrastructure, financial support, educational level, research and development (R&D), cultural and social criterion. External factors refers to “General National Framework Conditions or GNFCs”, including the institutional supervision, labor market, infrastructure construction, the external trade openness, the role of the government, industry efficiency, et al. Actually, internal and external factors can positively or negatively influence entrepreneurial intention depending on the interpersonal relationships of entrepreneurs (H. Hoang, 2003), private and public organizations (D. Rodrik, 2007). Simultaneously, four entrepreneurial environment notions, according to Luthje and Franke, i.e. the locus of control, the risk-taking tendency, the environmental support, and the contextual barriers, are able to stimulate the inclination to start a new career and expected to affect the entrepreneurial intention. Phan used a theoretical model synthesizing from the extant literature on the entrepreneurial intention by grouping the reported antecedents into three conceptual blocks (i.e. socio-economic background variables, attitudinal variables, and constructs for beliefs) and found that they all stimulate individuals’ entrepreneurial intention. In conclusion, we can make a hypothesis that entrepreneurial environment has positive effect on entrepreneurial Intention.

Hypothesis 1: Entrepreneurial environment has positive effect on entrepreneurial intention.

2.4 Entrepreneurial Self-efficacy

The concept “Self-efficacy” was first proposed by Bandura in Social Cognitive Theory which means that an individual’s strong belief towards his or her ability to perform a given task.

Self-efficacy shapes one's beliefs in having the ability to perform a specific behavior successfully in a specific situation and their expectations towards the outcomes of the behaviors. Meanwhile, entrepreneurial self-efficacy was interpreted as "the strength of a person's belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship [1]" by Chen, Greene and Crick. To sum up, entrepreneurial self-efficacy can be defined as the perception of individuals' abilities to successfully perform the tasks required for starting and managing a new business with their expectations toward the outcomes of starting a new venture (C. M. Chou, 2012).

2.5 The Mediating Role of Entrepreneurial Self-efficacy

Entrepreneurial self-efficacy is both the antecedent and the outcome of an action choice, which influence the way in which individuals perform their present business and manage their future tasks accomplishments. In 2012, Bandura stated that entrepreneurial self-efficacy is the most influential factor affecting entrepreneurial behaviors , which effects behaviors both directly and indirectly through its impact on other processes and factors such as goal setting, outcome expectations. Furthermore, entrepreneurial self-efficacy is proved to be a critical mediator of other variables by a large amount of current studies. For instance, Zhao et al. (2005) discovered that entrepreneurial self-efficacy played the mediating role between the relationship of gender and entrepreneurial intentions. Similarly, Biraglia and Kadile stated that entrepreneurial self-efficacy mediate the relationship between entrepreneurial passion and entrepreneurial intentions (A. Biraglia, 2017). Thus we can find that entrepreneurial self-efficacy has correlation with entrepreneurial intention and it is an explanatory variable which determines the power of entrepreneurial intention. Individuals with higher entrepreneurial self-efficacy are more likely to consider the entrepreneurial potential while low self-efficacy individuals may not. On the other word, entrepreneurial self-efficacy can be seen as the foundation of entrepreneurial behaviors (R. Hu, 2017). Besides this, entrepreneurial self-efficacy is also affected by national or regional environment (S. L. Mueller, 2003). for example, Fernández and Pérez argued that many individuals in high quality entrepreneurial environment may have more confidence to pursue entrepreneurial ventures. Urban indicated that individuals show higher entrepreneurial self-efficacy if they get financial and policy support from external environment (V. Fernandez-Perez, 2015). To sum up, we can make a conclusion that entrepreneurial environment facilitate the entrepreneurial self-efficacy while entrepreneurial self-efficacy stimulate entrepreneurial intention, it means that entrepreneurial self-efficacy mediates the relationship of entrepreneurial environment and entrepreneurial intention.

Hypothesis 2: Entrepreneurial self-efficacy mediates the relationship of entrepreneurial environment and entrepreneurial intention.

3. METHOD

This topic concentrated on university students' entrepreneurial intention, was researched mainly in China mainland, which researched in different cities, universities and majors of university students as samples with a structured questionnaire to collect data.

The participants in the survey of 303 (164 males and 139 females) come from different cities. The age of the universities' students is between 18 and 35 ($SD=0.536$), and the major age is 22.36 years old. As to the education level of all university students ($SD=0.681$), 69 people are junior university students, 204 are graduate, 30 are post-graduates. This study enjoys enough volumes of sample to make data analysis.

4. MEASURE

The questionnaire designed for the research of scale was via multilateral certification at home and abroad with high reliability and validity of scale. The report was combined with the specific situation of the domestic university students' entrepreneurship, and then revised the scale. The report adopted a 5-point Likert-type measurement format (1 = not at all, 5 = to a great extent).

4.1 Entrepreneurial Environment

This was measured with thirteen items (e.g. "I have enough equity capital to support to star a business"[31]). The principal axis factoring were used to submit the thirteen items and this scale's Cronbach's α is .873.

4.2 Entrepreneurial Self-efficacy

This was measured with nine items (e.g. "I can accept fangle easily"). The principal axis factoring were explained by the nine items, and this scale's Cronbach's α is .888.

4.3 Entrepreneurial Intention

This was measured with four items (e.g. "I have determined to create a company" (F. Liñán and Y. W. Chen)). The principal axis factoring were explained the four items, and this scale's Cronbach's α is .886.

5. RESULTS

5.1 Descriptive Statistics and Correlations

Table 1 showed the means, Std.D and correlations of variables. The results showed that EI was significantly correlated with EE ($r=.624, p<0.01$), ES($r=.630, p<0.01$). EE were significantly correlated with ES ($r=.604, p<0.01$).

Table 1 The Means, Std.D, and Correlations of Variables

	Variables	Means	Std.D	1	2	3	4	5	6
1	Gender	1.593	.491	1					
2	Age	1.188	.536	-.170**	1				
3	Education	1.914	.681	-.132**	.475**	1			
4	EE	3.409	.730	-.118**	-.002	-.048	1		
5	ES	3.634	.642	-.172**	.148	-.059	.604**	1	
6	EI	3.348	.983	-.216**	.074**	-.010	.624**	.630**	1

Note1: N=3403, when***, P<0.001; **, P<0.01; *, P<0.05

Note2: EE=Entrepreneurial Environment; ES= Entrepreneurial Self-efficacy;

EI=Entrepreneurial Intention

5.2 Hierarchical Multiple Regression Analysis

In order to examine the mediating effects, we followed the suggestions of Frazier, Tix and Barron (2004). Except for Frazier explaining the procedure of testing mediating effects with three variables (independent variable, mediating variable and outcome variable), we also controlled the effects of the gender, age and education level of the entrepreneurs.

Consequently we tested the hypotheses through hierarchical multiple regression analysis. Table 2 provided the estimated parameters and the results of the hypotheses testing of the mediating effect of entrepreneurial self-efficacy between entrepreneurial environment and entrepreneurial intention. For H1, entrepreneurial environment had a significant positive influence ($\beta=0.606, P<0.001$) on entrepreneurial intention. For H2, entrepreneurial self-efficacy played a role of mediating effect ($\beta=0.383, P<0.001$) between entrepreneurial environment and entrepreneurial intention.

We examined two hypotheses. Firstly, entrepreneurial environment would have an important effect on entrepreneurial intention. In addition, entrepreneurial self-efficacy would mediate entrepreneurial environment and entrepreneurial intention. We tested the hypotheses with the sample of 303 students in Chinese mainland. Our research results support the hypothesized relationships.

Table 2 Summary of Hierarchical Regression Analysis for mediation of psychological safety1

Variables	Model1	Model2	Model3	Model4
	EI	EI	ES	EI
Gender	-0.213***	-0.196***	-0.109***	-0.152***
Age	0.072*	0.061*	0.021	0.052
Education	-0.072*	-0.056	0.029	-0.067**
EM		0.606***	0.595***	0.379***
ES				0.383***
R ²	0.052	0.413	0.393	0.502***
Adj-R ²	0.050	0.411	0.391	0.500***
F	22.154***	742.313***	691.293***	544.867***

Note1: N=303, when***, P<0.001; **, P<0.01; *, P<0.05

Note2: EE=Entrepreneurial Environment; ES= Entrepreneurial Self-efficacy;

EI=Entrepreneurial Intention

6. DISCUSSION

6.1 The main effect of entrepreneurial environment and entrepreneurial intention

Based on GEM model, this paper divided entrepreneurial environment into Policy environment, financing environment, education and training environment, technological environment and service environment.

On the basis of the results, the entrepreneurial environment influence university students' entrepreneurial intention, it means that the better entrepreneurial environment, the stronger university students' entrepreneurial intention will be.

A high-quality entrepreneurial environment should be created to strengthen the entrepreneurial intention of university students. Firstly, government agencies should provide a series of policy support, improve the various knowledge protection system, streamline the approval procedures and provide policy advisory services. Secondly, universities should deepen the reform; improve the relevant content of university students' entrepreneurship education, the entrepreneurial training mechanism. Thirdly, government should provide multi-level and diversified financing channels for university students and give sufficient financial support for university students' entrepreneurship projects. In addition, the government should play a guiding function to construct and improve the guarantee system of university students' Wait.

6.2 The mediating effect of entrepreneurial self-efficacy

Entrepreneurial self-efficacy played a mediating effect between entrepreneurial environment and entrepreneurial intention. Therefore universities are supposed to take into account the influence of entrepreneurial self-efficacy when encouraging students to be entrepreneurs.

Without minimum levels of entrepreneurial self-efficacy, it is unlikely that potential entrepreneur would be sufficiently motivated to encourage in the new venture creation process. Universities do not only teach students the basic theory, but they also need to take some measures to improve university students' entrepreneurial self-efficacy. For example we can invite some successful entrepreneurial alumni to make students realize that entrepreneur near us, so as to increasing their entrepreneurial self-efficacy.

7. LIMITATION

The sample of the research has certain limitation , whose research object is only the university students in Fujian, China. It is not able to represent the total university students. In addition, the questionnaire selected the published scale, we need to adjust the scales based on the specific situation in the future work.

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