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Entrepreneurial Self-efficacy, Intention, and Behavior among College Students: An Empirical Study

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Abstract. College students' entrepreneurship has always been given high concern by the entire society and has overtime become a research topic of central concern in the area of entrepreneurship. Nevertheless, for university students who could be potential entrepreneurs, entrepreneurial self-efficacy serves as an important variable that influences the incidence of entrepreneurship behavior. Current literature is not extensive enough to penetrate the depths of explaining the process of self-efficacy in shaping entrepreneurial behavior. Thus, this paper will use final-year college students as the research participants, according to the survey data collected on 310 valid questionnaires. This paper incorporates the social cognitive theory to examine the process by which self-efficacy influences entrepreneurial behavior, develops a mediation model and examines how the behavior of university students is formed through hierarchical regression. Findings indicate that a strong positive predictive value of entrepreneurial self-efficacy on entrepreneurial intention exists, and entrepreneurial intention connects the relation between self-efficacy and entrepreneurial behavior. The findings of this paper can be used to examine how entrepreneurial behavior can be encouraged amongst college students and how an entrepreneurial and innovation friendly environment can be created.

Keywords: entrepreneurial intention, self-efficacy, college-student entrepreneurship

1. Introduction

Entrepreneurial behavior is the active, risk-taking and creative behavior of individuals that can generate new economic or social value by initiating new products, services or processes [1]. Mass entrepreneurship and innovation mainly rely on college students. Their entrepreneurial conduct highly encourages transfer of university knowledge to market [2]. Nevertheless, entrepreneurship among college students in China is experiencing a number of issues: the system of supporting entrepreneurship is not complete, which increases the risk of entrepreneurship, the new areas and scale of entrepreneurship are changing and increasing the difficulties of the entrepreneurship, and the lack of mechanisms of incubation decreases the efficiency of innovation.

As revealed by the method of planned behavior, all the factors influencing the behavior do so indirectly through behavioral intention. Within the framework, researchers have made a huge amount of empirical research on the relations among different entrepreneurial aspects. Entrepreneurial activities are intended actions [3], thus research on entrepreneurial behavior is

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typically related to the evolution of entrepreneurial intention [4,5]. Entrepreneurial self-efficacy stands for belief that the person can get the job done. However, few studies are focused on how the two are converted to one another. In addition, it has rarely been studied by earlier studies although their correlation has been established in certain studies.

Entrepreneurial intention is considered as a major indicator of behavior in the context of entrepreneurship research [6]. Individuals who have greater entrepreneurial intention will tend to engage in actual entrepreneurial activities. Nevertheless, not every intention of an entrepreneur becomes an entrepreneurial behavior. Two important research questions have arisen since the idea was proposed: what triggers or inhibits the intention-behavior transition and what are the circumstances and antecedents that cause entrepreneurial intention. It is significant to explain how entrepreneurial intention is formed and how it works to encourage innovation and entrepreneurship. In addition, this paper checks the effects of self-efficacy on entrepreneurial behavior on account of the existing research.

There is a little study that have investigated the influence of self-efficacy to behavior of aspiring entrepreneurs. The paper combines the method of planned behavior, constructs a model that incorporates entrepreneurial self-efficacy and intention, and conducts a hierarchical regression analysis of the relationship between them among college students. The findings offer recommendations on how to encourage the entrepreneurial attitude of university students as well as enhance the levels of innovation and entrepreneurship of China in the post-pandemic period.

2. Hypothesis

2.1. Entrepreneurial self-efficacy and behavior

Since proposed, self-efficacy has been widely affected selective behaviors, including career choice. People with strong self-efficacy in a given job are prone to carry out related activities, put in more effort, and stick to the task. Vozikis and Boyd first presented Bandura's self-efficacy concept in entrepreneurship [7]. They suggested that self-efficacy for entrepreneurship is the individual's assessment and belief that they can carry out certain entrepreneurial roles and/or undertake and complete entrepreneurial tasks. Entrepreneurs with higher self-efficacy are possible to invest even more effort over a long period of time, bounce back from disappointment more effectively, and design more sophisticated and better entrepreneurial activities. Kerr et al. reviewed and acknowledged the recent trends in the literature affirming that self-efficacy in entrepreneurship is significantly related to active participation in entrepreneurship [8]. Newman et al. conducted a review of self-efficacy and entrepreneurship literature and acknowledged self-efficacy in entrepreneurship as a significant and considerable construct with multiple theoretical perspectives, empirical measurement approaches [9], and self-efficacy in. In conclusion, the literature recognizes self-efficacy for entrepreneurship as significant and consistent predictors of entrepreneurial behavior despite the effect of several situational and individual factors. In this regard, the author hypothesizes the following:

H1: Entrepreneurial self-efficacy positively influences on entrepreneurial behavior.

2.2. Entrepreneurial self-efficacy and entrepreneurial intention

Ajzen explains that rational behavior is contingent to individual intention. This intention is an individual self-conviction to initiate and willingly execute a new venture plan. Using structural equation modeling, Liñán and Chen identified attitude, subjective norm, and perceived behavioral

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control as the key antecedents of entrepreneurial intention, and they explain entrepreneurial intention with great predictive power in different cultural scenarios.

According to the theory of planned behavior, perceived behavioral control represents an individual's perception of the ease or difficulty associated with a given behavior. Self-efficacy is the origin of this concept, and in this case, both theories are highly correlated. The theories are fundamental frameworks that are used to examine entrepreneurial intentions, and are assumed to be a lot correlated to entrepreneurial self-efficacy. Gieure et al. have established that entrepreneurial intention and entrepreneurial behavior are correlated, and the theory of planned behavior is suitable to this relationship [3]. This explains why entrepreneurial self-efficacy is treated as a self-governed or a control variable in many entrepreneurial intention studies.

During initial phases of entrepreneurship, college students begin to assess their own entrepreneurial capabilities. Self-efficacy along with their attitude, confidence, and perception of the surrounding social networks regarding entrepreneurship encourages entrepreneurial intention. Simply put, confidence and positive expectations regarding entrepreneurial task completion leads to the emergence of entrepreneurial intention [10]. Therefore, the author puts forth the following hypothesis:

H2: Entrepreneurial self-efficacy has a positive effect on entrepreneurial intention.

2.3. Entrepreneurial intention and entrepreneurial behavior

Starting a new venture is not a spontaneous occurrence. It requires skills to be learned over time. There are numerous interrelated factors that influence entrepreneurial ability, whether directly or indirectly. Entrepreneurial behavior is a continuous process that starts from the formation of entrepreneurial intention and leads to entrepreneurial activities fueled by that intention [11].

Research shows a tight relation between intention and behavior, with a correlation equal to or greater than 0.90 [6]. Within entrepreneurship, intention tends to be viewed as a precursor to behavior. It is these entrepreneurial ambitions that drive individuals to gather information relevant to the opportunity, invest their time, and take action when the conditions are appropriate.

Hypotheses on entrepreneurial intention and behavior derived from the above research are as follows:

H3: Entrepreneurial intention will increase entrepreneurial behavior.

2.4. The mediating role of entrepreneurial intention

There is a positive relationship between one's belief in their self-efficacy and how successful they think people will be, which in turn, influences their thought, motivation, and behavior [3]. Those with higher self-efficacy may be more enthusiastic about entrepreneurship and recognize and utilize external environments and resources.

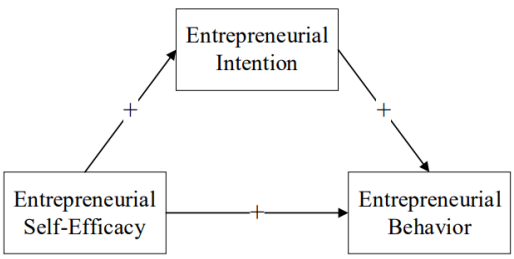

Figure 1. Research model

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Specifically, Ajzen's planned behavior theory suggests a person's intention to do something makes a connection between their attitude [12], perceived social pressures, and perceived levels of control or other variables. Individuals with stronger self-efficacy tend to demonstrate a greater level of control over their own lives and events, which conveys greater intention. Therefore, the more perceived control, the greater the intention, and the more action taken. Vozikis and Boyd emphasized the role of entrepreneurial self-efficacy in explaining the strength of entrepreneurial intention and behavioral intention. It explains one's ability to entrepreneurial practice [7].

This study will base the connection between entrepreneurial self-efficacy and behavioral intention on the previously mentioned assumption. Starting a business is a consequence of one's desire and belief, and developing an entrepreneurial intention aid in taking action and following through with entrepreneurial behavior. Therefore, the author proposes the following:

H4: Entrepreneurial self-efficacy influences entrepreneurial behavior indirectly via entrepreneurial intention.

The above analysis has enabled people to create an initial model depicting How entrepreneurial self-efficacy is thought to affect entrepreneurial behavior, as illustrated in Figure 1.

3. Data and methodology

3.1. Sample and data collection

Because of the significance of entrepreneurship among college students, many studies on self-efficacy and intention have paid attention to college students. Final-year students think more critically about their careers than do students in other grades and make more considered decisions as to whether or not to start their own businesses [13]. A questionnaire survey was conducted among last-year students in China. The questionnaire consists of three dimensions which are intended to be used for measuring entrepreneurial self-efficacy, intention, and behaviour.

Table 1. Descriptive statistics of sample characteristics (N=310)

Characteristic	Category	Num.	Percent(%)	Characteristic	Category	Num.	Percent(%)
Gender (E1)	Male	111	35.81		Northeast Area	183	59.03
	Female	199	64.19	Area where University Locates(E4)	East Area	45	14.52
	Junior College Student	22	7.1		Middle Area	59	19.03
Education (E2)	Bachelor	204	65.81		West Area	23	7.42
	Master	76	24.52		"985" University	138	44.52
	Doctor	7	2.26	University Type(E5)	"211"University	52	16.77
	Other	1	0.32				

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Table 1. (continued)

	Humanities and Social Sciences	81	26.13				
Major (E3)	Science, Engineering, Agriculture and Medicine	102	32.9		Ordinary College and University	100	32.26
	Economics and Management	107	34.52		Other	20	6.45
	Arts and Sports	5	1.61	Entrepreneurial Experience(E6)	Yes	46	14.84
	Other	15	4.84		No	264	85.16

Data were collected online between February 28 and March 8, 2026. Selected participants who gave their written consent to participate received electronic questionnaires through email and social media. After removing the incomplete, repetitive and invalid questionnaires, a total of 310 valid questionnaires were collected. Table 1 presents the sample demographics.

Specific groups of respondents were focused in this study, which includes current college students and final-year students, and it removed the following variables: gender, level of education, type of university, geographical location of the university, entrepreneurial background, and academic major. These variables were considered to affect the entrepreneurial intention and behavior of the students.

3.2. Reliability and validity analyses

The results of the exploratory and confirmatory factor analysis are shown in Table 2. Here, the items are shown as the following:

- ESE1: I am confident that I can invent new products.
- ESE2: I am confident that I can successfully identify new business opportunities.
- ESE3: I believe I have creative thinking and can turn it into commercial reality.
- EI1: I am willing to do anything to become an entrepreneur.
- EI2: My career goal is to become an entrepreneur.
- EI3: I will strive to start my own business.
- EI4: I plan to start my own business in the future
- EI5: I have seriously considered starting a business.
- EI6: I have a strong intention to start a business.
- EB1: I am willing to spend time and energy preparing for entrepreneurship.
- EB2: I always keep an eye out for suitable entrepreneurial opportunities.
- EB3: I have asked my parents to prepare a certain amount of startup capital for me.

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Table 2. Outcomes of reliability and validity analysis

Variable	Item	factor loading	Cronbach's Alpha	CR	AVE	KMO
Self-Efficacy	ESE1	0.898	0.933	0.933	0.822	0.768
	ESE2	0.914				
	ESE3	0.908				
Intention	EI1	0.787	0.949	0.950	0.759	0.919
	EI2	0.872				
	EI3	0.901				
	EI4	0.913				
	EI5	0.865				
	EI6	0.884				
Behavior	EB1	0.885	0.844	0.859	0.673	0.688
	EB2	0.886				
	EB3	0.670				

All constructs demonstrated satisfactory reliability, with Cronbach's alpha and CR both exceeding 0.8, indicating high measurement reliability and surpassing the acceptable threshold of 0.6, recommended by the researchers in this field. The Confirmatory Factor Analysis (CFA) showed that all factor loadings and AVE estimates surpassed the 0.5 threshold, confirming adequate convergent validity of the scales. Additionally, Bartlett's test of sphericity reached significance ($p < 0.001$), and the KMO value was above 0.6, indicating that the items effectively captured the content of the constructs. The findings concluded that the constructed of the items used in the study were valid. The three-factor model yielded the following fit indices: $\chi^2/df = 2.154$, CFI = 0.983, TLI = 0.978, RMSEA = 0.061, which indicates an acceptable fit for the model.

4. Results

After confirming reliability and validity, this study used correlation analysis to examine variable relationships and regression analysis to test the hypotheses, ensuring the appropriateness of the latter. Table 3 presents the descriptive statistics and correlations. The means and standard deviations of all variables are within acceptable ranges. All the variables are significantly and positively correlated.

In this way, the hypotheses, which are stated in the given research, are logical and can be further researched with the help of regression analysis. A collinearity test was also conducted in this study and all the VIF values are smaller than 10 indicating that there is no severe multicollinearity issue.

Table 3. Descriptive statistical and correlation analysis matrix of variables

	M	S.D.	E1	E2	E3	E4	E5	E6	ESE	EI	EB
E1	1.642	0.48	1								
E2	2.229	0.62	-0.158	1							
E3	2.261	1.021	-0.013	-0.074	1						
E4	1.748	1.009	0.161	-0.280	-0.037	1					
E5	2.006	1.014	0.177	-0.466	0.177	0.435	1				

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Table 3. (continued)

E6	1.852	0.356	0.143	-0.021	0.071	0.067	0.03	1			
ESE	3.224	1.085	-0.026	0.023	0.103	0.013	-0.001	-0.196	1		
EI	2.968	1.053	-0.105	-0.048	0.117	0.044	0.094	-0.240	0.672	1	
EB	3.082	1.027	-0.146	-0.033	0.054	0.017	-0.012	-0.217	0.594	0.758	1

This paper applies hierarchical regression analysis to test conjecture and the results have been described in detail in Table 4.

Table 4. Regression results

	EB				EI	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
E1	-0.125	-0.129	-0.057	-0.067	-0.091	-0.095
E2	-0.058	-0.076	-0.048	-0.054	-0.014	-0.034
E3	0.073	0.001	-0.018	-0.025	0.121	0.039
E4	0.059	0.029	0.024	0.021	0.045	0.013
E5	-0.049	-0.034	-0.101	-0.09	0.069	0.086
E6	-0.209	-0.089	-0.027	-0.02	-0.241	-0.107
ESE		0.575		0.156		0.645
EI			0.753	0.649		
F	3.865	26.798	61.365	56.491	5.037	40.507
Adjusted R2	0.053	0.369	0.578	0.590	0.073	0.472

Model 1 is the control model in the regression analysis where entrepreneurial behavior is the dependent variable and control variables are only present. For Model 2, the variable (entrepreneurial self-efficacy) is included and the findings indicate that the variable (entrepreneurial self-efficacy) has a vital positive relationship with the entrepreneurial behavior (= 0.575, $p < 0.01$), thus Hypothesis 1 is accepted. Model 3 is an addition of the mediating variable (entrepreneurial intention) to Model 1. The findings indicate that there is a strong positive connection between entrepreneurial intention and entrepreneurial behavior (= 0.753, $p = 0.01$), thus Hypothesis 3 is accepted.

In the regression analysis, Model 5 served as the control model, including only control variables. Model 6 extended Model 5 by adding entrepreneurial self-efficacy. Entrepreneurial self-efficacy was significantly and positively related to entrepreneurial intention, thereby supporting Hypothesis 2.

In Model 4, entrepreneurial self-efficacy and entrepreneurial intention were added to the variables included in Model 1. After controlling for both factors, entrepreneurial self-efficacy remained significantly and positively associated with entrepreneurial behavior ($\beta = 0.156$, $p < 0.01$), and entrepreneurial intention also maintained an important positive relationship with entrepreneurial behavior ($\beta = 0.649$, $p < 0.01$).

A Bootstrap test was done to check the effect of entrepreneurial intention. The findings reveal that the 95% interval does not include zero ([0.310, 0.480]) which proves the presence of the mediating effect. That is, entrepreneurial intention is a partial mediator linking entrepreneurial self-efficacy to behavior, thus supporting Hypothesis 4.

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5. Conclusions

This study develops and empirically tests a complete theoretical framework that explains how entrepreneurial self-efficacy influences its behavior through the mediating role of entrepreneurial intention. By examining the relationships among these three constructs, the research sheds light on how varying levels of entrepreneurial self-efficacy drive prospective entrepreneurs toward entrepreneurial behavior. It enhances the systematic understanding of factors shaping entrepreneurial behavior, deepens insights into college students' entrepreneurial actions, and contributes to theoretical advancements in the realm of student entrepreneurship.

This research report suggests that the entrepreneurship capacity training offered by colleges and universities to final-year students should be focused. Through curriculum teaching, practical training and simulation exercises, they are able to increase the self-efficacy of students in entrepreneurship and give students confidence in their ability to accomplish entrepreneurial activities. In the meantime, colleges and universities ought to establish platforms to transform entrepreneurial intention, provide students with services like information matching, resource support and opportunity guidance, and facilitate the transformation of entrepreneurial intention into real entrepreneurial actions like concrete preparation and opportunity searching. Moreover, special assistance needs to be given depending on individual differences of students in terms of gender, major and entrepreneurial experience. The entrepreneurship climate on campus needs to be streamlined to lessen the entrepreneurial worries of the students and enable them to implement the practice of entrepreneurship in a more comfortable manner.

There are some limitations of this study. To start with, the object of the research is final-year students of various disciplines, types of universities and regions, but the variables like the type of discipline that the students are undergoing, gender, internship or work experience are not considered in the analysis. Future studies can narrow down the research focus and unlink other aspects of personality that could possibly affect entrepreneurial self-efficacy by having a more controlled variable. Second, the mediating effect of entrepreneurial intention is solely analyzed in this study. The research on environmental and individual factors having influence on the self-efficacy-intention-behavior path may be extended by the other moderating variables, which could influence the behavioral path, to offer more perspectives to the entrepreneurship research and confirm the relevance of the model.

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