

## **The Pathways of Innovation and Entrepreneurship Education Mediated by Entrepreneurial Self-Efficacy and Moderated by Entrepreneurial Spirit**

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### **Abstract**

Higher education is crucial for the growth of the knowledge economy. The fight between information and technology is indicative of a larger struggle between educational institutions and the skills they instill in their students. China's educational landscape has seen significant transformations since 1999, marked by a substantial rise in the number of students pursuing higher education. Individuals' own attitudes about entrepreneurship are significantly shaped by their subjective psychological situations, encompassing emotional and evaluative aspects. It is crucial to impart the skill of independent and creative thinking to students. Studies have shown that this teaching method has a substantial influence on students' motivation to start their own businesses. It is beneficial to promote individuals in following their entrepreneurial inclinations. Lack of sufficient education on innovation and entrepreneurship leads to a decline in entrepreneurial motivation. This is a probable outcome of the situation. Those who receive mentorship are more inclined to follow an entrepreneurial vocation compared to those who do not. Formal education is indispensable for individuals aspiring to initiate their own enterprises. One of the main factors is that when individuals uncover the complexities of entrepreneurship, it motivates them to venture out independently and establish their own enterprises. Multiple studies have demonstrated that education can effectively promote individuals' inclination towards entrepreneurship and facilitate entrepreneurial endeavors. Consequently, education has the capacity to enhance motivation and self-reliance. Entrepreneurs were more inclined to initiate or grow their businesses following their involvement in specialized entrepreneurship programs. Individuals who engage in entrepreneurship education programs have a higher probability of transitioning into entrepreneurs.

### **Introduction**

Colleges and universities must prioritize the development of students' intellectual and entrepreneurial skills if they are to remain relevant in the modern world. The quantity and quality of a nation's future entrepreneurs are directly influenced by the amount and quality of its potential college entrepreneurs. Thus, entrepreneurial education programs for university students have proliferated over the globe, with varying degrees of success in each country. Tsinghua University offered the first course on innovation and entrepreneurship in 1997, marking the beginning of more than 20 years of entrepreneurship education in China. A thorough system for teaching entrepreneurship to college students has been refined over years of testing and refinement. Not only does it help college students get work, but it's also a great way to teach people about entrepreneurship, which is becoming more popular as a whole. It is believed that entrepreneurship education will help college students become more entrepreneurial, inspire them to pursue entrepreneurial endeavors, and create a society that values innovation and entrepreneurship. This

will take the field of entrepreneurship education to the next level, fostering creative and risk-taking minds and boosting national innovation and entrepreneurship.

In 2003, Markman and Baron were the first to theoretically present the idea of entrepreneurship (Markman & Baron, 2003). The importance of human elements and how they affect entrepreneurial effort outcomes is emphasized by them. It was called the "person-entrepreneurship fit" framework. Differentiating between them required the development of a theoretical model. They also try to put each component of perceived compatibility into action. This groundbreaking theoretical framework is thus serving as the compass for this inquiry. There is a fundamental difference between perceived fit and actual or objective fit. According to an outsider, like a researcher, a perceived fit exists when certain personality qualities are congruent with entrepreneurialism. The success of a business is directly related to how well an entrepreneur's temperament is evaluated (Markman & Baron, 2003). But this degree of compatibility might not be understood before someone starts their own business. For many, the allure of starting their own business stems from the idea of a perfect fit. Improving our comprehension of perceived fit will have positive effects on entrepreneurial education, practice, and theory in general. Wanting to be happy is a strong motivator. To further develop various contexts that correspond to the idea of person-environment fit, they center their attention on the aspect of perceived person-entrepreneurship fit, as described by Deci and Ryan (n.d. 2004).

Entrepreneurship encompasses a wide range of intricate concepts. An entrepreneur is someone who starts a business and runs it with the intention of making a profit and expanding it (Sally Smith, Hamilton, & Fabian, 2019). There is more to entrepreneurship than just launching a business. Right now, more than ever, it is critical to teach children to think like entrepreneurs. Several studies in the recent past have highlighted the importance of entrepreneurial education in shaping students' future professions (Wei Xing jian et al., 2019; Robert et al., 2018; Franke and Luthje, 2004, Fayolle, 2013). According to Kassaian et al. (2015) and Kubberød and Pettersen (2017), students' views on entrepreneurship and their awareness of different career paths can be influenced by the incorporation of enterprise and entrepreneur methods into higher education. By boosting their chances of survival, expanding their capacity to create profit, and nurturing their entrepreneurial attitude, entrepreneurial education has the power to impact entrepreneurs' success (Ho M-HR, 2018).

Higher education is essential to the growth of the knowledge economy, and the competition between knowledge and technology is a microcosm of the larger struggle between schools and the abilities they teach. Enrollment in China's higher education has increased dramatically since 1999, leading to a marked leap in the country's educational landscape. The gross enrollment rate for China's higher education increased from about 17% in 2003 to 51.6% in 2019, as reported by Zhong, Li, and Wang X (2019). This indicates that China has accomplished its goal of universally developing higher education, since the percentage has increased to 59.6% since 2023. Meanwhile, from about 85,000 in 1999 to more than 9 million in 2021, the yearly total of college grads from Chinese institutions has skyrocketed. More and more people are getting bachelor's degrees every year, and that has people worried about the employment prospects for recent grads. Every year about this time, people start talking about graduation. The growth and development of higher education in China brings with it a wide range of challenges, including an increase in the number

of students from diverse backgrounds, higher expectations from society, and more individualized needs for students' personal and academic development. At the moment, China's system for cultivating talent and higher education is unrivaled in the world. But there is worry about the standard of higher education, especially about the ever-present problem of uneven and inadequate growth. University graduates are unprepared for the workforce because institutions have been slow to adjust their talent cultivation practices to match societal needs. Due to the increasing social competition, the fast changing and unpredictable social and economic growth backdrop, and the growing demand for inventive and entrepreneurial abilities in society, these skills are in high demand. For China to achieve its goal of becoming a developed nation and implement its innovation-driven growth plan, college students are vital. Social innovation and entrepreneurship are mostly propelled by them. It is imperative that modern institutions of higher learning fulfill the important role that the modern era has bestowed upon them by educating students to think and act like entrepreneurs. C. X. Liang, 2019

### **Literature Review**

The subjective psychological condition of an individual is the primary factor that determines the individuals' emotional and evaluational traits, which are included in entrepreneurial personal attitudes. For the purpose of evaluating the assessment factors, the "expected value model" is utilized. Because of the malleability of attitudes, educators and practitioners have the potential to influence the attitudes of entrepreneurs. According to Robinson et al. (1991), educators have the ability to positively influence students' attitudes about entrepreneurship by cultivating students' innovative awareness, accomplishment pursuit, and self-esteem. There is a considerable correlation between entrepreneurial attitude and entrepreneurial intention (Austio et al., 2001), and there are very few respondents who have high individual attitudes but low behavioral intention for certain actions. This is because of the close link between the two. When it comes to encouraging businesses to engage in entrepreneurial activities, a positive attitude toward entrepreneurship is an ideal starting point. Bridge, O'Neill, and Cromie (1998), Gorman et al. (1997), and McMullan and Long (1987) all recognize that there are numerous approaches to entrepreneurship education, each of which is tailored to a particular stage of development. Various types of entrepreneurship education have been recognized by scholars for distinct audiences, such as entrepreneurship intention education (Jamieson, 1984; Liñán, 2004). This style of education assists students in acquiring entrepreneurial qualities and selecting vocations that have the potential to be lucrative. According to Garavan and Cinneide (1994) and Weber (2011), the purpose of entrepreneurship education in higher education is to increase the awareness of entrepreneurship and to assist in the development of future entrepreneurs. Jamieson (1984) asserts that education in entrepreneurship should be designed to achieve three distinct sorts of objectives: the development of entrepreneurial awareness, the enhancement of entrepreneurial skill, and the improvement of firm operation capability. In point of fact, the primary objective of entrepreneurship education in higher education is to cultivate entrepreneurial consciousness. This means that the primary objective is to provide students with the entrepreneurial skills, attitudes, and values that are necessary to establish, own, run, and manage their own firms themselves. Individuals who have a strong desire to start their own businesses are the target audience for entrepreneurship education, which is designed to assist them in being ready to launch and run their own companies. The majority of the third category The third category is sometimes referred to as "entrepreneurship training projects" as a consequence of this finding. Similarly, Watts (1984) distinguished between two distinct types of

entrepreneurship education: the first is the cultivation of entrepreneurial consciousness, and the second is the practical education of entrepreneurs. After that, further research on the classification of entrepreneurial education was carried out by Garavan et al. (1994), Feit (2000), and Laukkanen (2000), amongst others, and they arrived at results that were comparable to those previously mentioned.

The education of entrepreneurs is widely recognized as one of the most effective methods for the development of aspiring and aspiring entrepreneurs. According to Villasana et al. (2014), universities are in a unique position to impact and shape students' attitudes toward entrepreneurship. Additionally, universities are in a position to cultivate students' entrepreneurial perspectives, which enables students to play multiple roles in the process of entrepreneurship. There are many instances in which education on entrepreneurship has progressed beyond the realm of traditional education. In addition to teaching students the skills they need to be successful, the entrepreneurial spirit must also be included into other areas of study (Mars, 2013). According to Kourilsky and Walstad (1998), education on entrepreneurship is an essential component in the process of cultivating individual innovation awareness and entrepreneurial spirit, which in turn leads to an increase in individual entrepreneurial passion and the stimulation of entrepreneurial activities. It has been established by a number of studies (Rasheed, 2003; Bonnett & Furnham, 1991; Chen, Wen & Hsu, 2010) that students' entrepreneurial tendencies can be increased by the training that they receive through educational entrepreneurship projects. According to McIntyre and Roche (1999), the process of educating individuals about entrepreneurship involves providing them with the knowledge and skills that should enable them to recognize possibilities that they may have overlooked and to take action at the appropriate moment.

### **Methodology**

In this particular research endeavor, one of the independent variables that is being explored is the level of education that has been obtained in the sector of entrepreneurship. Two examples of variables that act as mediators in this context are entrepreneurial goals and innovation. Both of these variables are instances of other variables. For the purposes of this investigation, the dependent variable is behavior that is entrepreneurial. A questionnaire was prepared using a quantitative technique for the purpose of the current inquiry. The purpose of the questionnaire was to investigate the factors that influence the behavior of business owners and entrepreneurs. The successful completion of this assignment was made possible through the utilization of questionnaires that were acquired from relevant resource materials that were related to the subject matter. The gathering of data was accomplished through the utilization of a Likert scale that featured five scale points. A total of five different degrees of selection were included on this scale, ranging from "strongly disagree" to "strongly agree." In addition to this, the premise of the study was investigated, and then comprehensive analyses were performed on the data received from the questionnaire by making use of SPSS and AMOS. These analyses were carried out. To evaluate whether or not there is a connection between education in creative entrepreneurship, degrees of entrepreneurial self-efficacy and intention, and entrepreneurial activity, the goal of these studies was to investigate the possibility of such a connection. The quantitative comparisons were utilized in each of these inquiries in their respective bodies of work. During the course of this investigation, the method of sampling that was applied was referred to as stratified random sampling. There were a variety of methods that were implemented in order to solicit the participation of respondents in the questionnaire survey prior to the collection of essential data. The use of email to communicate

with respondents and the dissemination of group announcements on WeChat were both included in these techniques.

## Analysis

## Findings

### Reliability

According to Hair et al.'s 2020 research, the dependability of an observed variable is defined as the extent to which it accurately represents the true value without any errors. Dependability, in its most fundamental form, is a measuring stick that determines if a group of things or observed variables evaluate the same fundamental notion. According to Awang, Afthanorhan, and Asri (2015), there are three statistical measures that may be utilized in order to evaluate the reliability of a measurement model. These measures are known as internal reliability, composite reliability (CR), and average variance extracted (AVE). Internal dependability can be evaluated with the help of a statistical indicator known as Cronbach's alpha. When the Cronbach's alpha value is more than 0.70, it implies that the item has a considerable amount of internal consistency (Hair et al., 2020). Cronbach's alpha coefficients for all of the constructs are greater than 0.7, as can be shown in Table 1. This indicates that the constructs have good internal reliability. It is possible to define composite reliability (CR) as the quantification of both dependability and internal consistency for a particular underlying construct. As can be seen in Table 1, all of the constructions have CR values that are greater than 0.6, which indicates that the reliability of the composite has been reached for all of the constructs. According to the findings of the researchers, the recommended standard is an Average Variance Extracted (AVE) value that is greater than 0.5 for every construct (Hair et al., 2020). The data shown in Table 1 demonstrates that the current method of measurement has reached a satisfactory level of reliability. The composite dependability (CR) values in Table 1 ranged from 0.846 to 0.961, which is higher than the threshold of 0.7 that is considered acceptable. In point of fact, the average variance explained (AVE) values were greater than 0.50, which indicates that the level is adequate. As a result, the scale that was utilized exhibited a level of dependability that was satisfactory.

Table 1: Construct Validity and Reliability

variable	item	Factor load	CR	AVE	Cronbach's Alpha
IEE	IEE2	0.814	0.885	0.657	0.884
	IEE3	0.813			
	IEE5	0.812			
	IEE6	0.803			
EA	EA1	0.752	0.903	0.65	0.902
	EA2	0.735			
	EA3	0.865			

	EA	0.849			
	EA	0.823			
	SN1	0.883			
	SN2	0.793			
SN	SN3	0.742	0.886	0.61	0.884
	SN4	0.728			
	SN5	0.748			
	PBC1	0.88			
PBC	PBC3	0.79	0.892	0.674	0.891
	PBC4	0.801			
	PBC5	0.809			
	ESE1	0.726			
	ESE3	0.738			
ESE	ESE4	0.805	0.886	0.61	0.882
	ESE5	0.897			
	ESE6	0.726			
	EI1	0.76			
	EI2	0.731			
EI	EI3	0.778	0.869	0.569	0.869
	EI4	0.748			
	EI5	0.755			
	DEM1	0.846			
	DEM2	0.729			
DEM	DEM3	0.721	0.873	0.581	0.871
	DEM4	0.759			
	DEM5	0.748			
	ES1	0.79			
ES	ES2	0.743	0.846	0.578	0.841



### Discriminant Validity

A comparison of the squared correlations between the components in the study model and the Average Variance Extracted (AVE) of each construct is one method that may be utilized to evaluate the discriminant validity of the investigation. In accordance with the findings of Hair et al. (2010), a construct is deemed to possess sufficient discriminating validity if the square root of the average variance extracted (AVE) is evaluated to be higher than the cumulative correlations among the constructs. According to the data presented in Table 2, the square root of the Average Variance Extracted (AVE) for each construct is higher than the correlations between constructs. This suggests that all constructs possess sufficient discriminant validity. According to Kline (2011), it is possible to draw the conclusion that there is strong discriminant validity between constructs if the correlations between latent variables are lower than the threshold of 0.85 and the squared correlation is lower than the square root of the average variance extracted (AVE) by indicators. Now that this is established, the model is able to move forward with the analysis of hypothesis testing.

Table 2: Discriminant Validity

	IEE	EA	SN	PBC	ESE	EI	DEM	ES
IEE	<b>0.811</b>							
EA	.524**	<b>0.806</b>						
SN	.375**	.367**	<b>0.781</b>					
PBC	.368**	.396**	.548**	<b>0.821</b>				
ESE	.358**	.400**	.539**	.506**	<b>7.810</b>			
EI	.384**	.389**	.531**	.517**	.535**	<b>0.754</b>		
DEM	.393**	.488**	.382**	.374**	.379**	.370**	<b>0.762</b>	
ES	.376**	.419**	.360**	.365**	.306**	.368**	.547**	<b>0.760</b>

Table 3, which can be found below, contains the descriptive statistics for each of the constructs that were incorporated into the study model. These statistics can be found in its entirety below. The mean score for Innovation and Entrepreneurship Education is 3.649, with a standard deviation of 1.032. The mean score for Entrepreneurship Attitude is 3.541, with a standard deviation of 1.031. The mean score for Subjective Norms is 3.760, with a standard deviation of 0.866. The mean score for Perceived Behavioural Control is 3.676, with a standard deviation of 1.074. The mean score for Entrepreneurial Self-Efficacy is 3.656, with a standard deviation of 1.061. The mean score for Entrepreneurial Intention is 3.769, with a standard deviation of 0.966. The mean score for Gender, Entrepreneurial Experience, and Self-Employed Families is 3.684, with a standard deviation of 0.895. Finally, the mean score for Entrepreneurial Spirit is 3.805, with a standard deviation of 0.941. In terms of the standard deviation, each of the constructs has values that are less than 1, which suggests that the responses are consistent. This is the case for all of the constructions.

Table 3: Descriptive Statistics of the Constructs

	N	Minimum	Maximum	Mean	Std. Deviation
IEE	452	1.00	5.00	3.649	1.032
EA	452	1.00	5.00	3.541	1.031
SN	452	1.10	5.00	3.595	0.901
PBC	452	1.00	5.00	3.760	0.866
ESE	452	1.00	5.00	3.676	1.074
EI	452	1.20	5.00	3.656	1.061
DEM	452	1.00	5.00	3.769	0.966
ES	452	1.10	5.00	3.715	0.798

The utilization of route analysis is utilized in order to assess the appropriateness of the measurement model, as stated by Hair et al. (2010). In order to accomplish this, specific statistics pertaining to the connection that exists between the independent variables and the dependent variable are presented. Primary focuses of path analysis, which is also sometimes referred to as structural model evaluation, include the overall model fit, size, and direction, as well as the significance of the hypothesized parameter estimations. Path analysis is also often referred to as structural model evaluation. The relative chi-square value should be less than 5.0 under normal conditions, as was discussed in the part that came before this one. This recommendation was made in detail in the previous section. The values of GFI, AGFI, CFI, and IFI, in addition to TLI, are anticipated to be more than 0.90. This is also assumed to be the case. Based on the recommendations of Byner, Matthias, and Ding, it is recommended that the RMSEA and RMR be less than 0.08, which shows that the fit is satisfactory. 2019 was the year when this recommendation was brought forward. As an additional point of interest, Hair et al. (2010) highlight the fact that the overall structural model fit can be guaranteed when any three to four of the indices described above reach the required level. The conclusion that can be drawn from this is that the subsequent step is to carry out additional research and put the hypothesis to the test. The maximum likelihood (ML) method was applied in order to compute the goodness-of-fit indices of the model that is now being utilized. In the figure that follows, the RMSEA value of 0.028 is displayed. This value likewise satisfies the requirement being discussed. A threshold value of 0.90 is exceeded by the df value of 1.341, the GFI value of 0.879, the AGFI value of 0.868, and the CFI value of 0.971. All of these values are higher than the threshold value.

Table 4: Goodness-of-fit Indices

indicators	Ideal value	data	result
CMIN	——	1758.346	——
DF	——	1311	——



CMIN/DF	<3	1.341	accepted
RMR	<0.08	0.045	accepted
GFI	>0.8	0.879	accepted
AGFI	>0.8	0.868	accepted
IFI	>0.9	0.972	accepted
TLI	>0.9	0.970	accepted
CFI	>0.9	0.971	accepted
RMSEA	<0.08	0.028	accepted

In conclusion, the structural model that is currently in use is appropriate for the goodness-of-fitness indices, and it is feasible to proceed with the testing of other hypotheses. The unstandardized and standardized regression weights that were produced from the structural model are provided in Table 5 below. This is in light of the fact that the structural model in question was used. For the purpose of giving evidence for hypothesis 1, the data that is shown in Table 5 reveals that predisposing attributes have a significant positive influence on innovation and entrepreneurship education ( $\beta=0.203p<0.05$ ). Our findings indicated that the attitude towards entrepreneurship has a significant and favorable impact on the intention to engage in entrepreneurial activities ( $\beta=0.492p<0.05$ ), therefore providing support for hypothesis 2. Furthermore, our findings indicated that the perception of behavioural control has a noteworthy and favorable impact on the intention to engage in entrepreneurial activities ( $\beta=0.185p<0.05$ ), thus providing support for hypothesis 3.

Table 5: The Structural Model of the Study with Standardized Regression Weights

Path			Standardized Coefficient	Standardized Coefficient	S.E.	C.R.	P	hypo
EI	<---	EA	0.203	0.221	0.106	2.092	0.036	supported
EI	<---	SN	0.492	0.531	0.077	6.894	***	supported
EI	<---	PBC	0.185	0.194	0.093	2.096	0.036	supported

### Structural Model for Each Dimension

In order to investigate the factors that have an impact on each independent variable, specifically the components that are connected to each dimension, structural equation modeling (SEM) is carried out with the maximum likelihood method analysis with AMOS. This permits the exploration of the elements that have an effect on each dimension. The maximum likelihood (ML) method was applied in order to compute the goodness-of-fit indices of the model that is now being utilized. In the figure that follows, the RMSEA value of 0.028 is displayed. This value likewise satisfies the requirement being discussed. A threshold value of 0.90 is exceeded by the df value of

1.349, the GFI value of 0.880, the AGFI value of 0.867, and the CFI value of 0.971. All of these values are higher than the threshold value.

Table 6: Goodness-of-fit Indices

indicator	Ideal value	data	result
CMIN	——	1738.726	——
DF	——	1289	——
CMIN/DF	<3	1.349	accepted
RMR	<0.08	0.043	accepted
GFI	>0.8	0.880	accepted
AGFI	>0.8	0.867	accepted
IFI	>0.9	0.972	accepted
TLI	>0.9	0.969	accepted
CFI	>0.9	0.971	accepted
RMSEA	<0.08	0.028	accepted

In conclusion, the structural model that is currently in use is appropriate for the goodness-of-fitness indices, and it is feasible to proceed with the testing of other hypotheses. Using normalized regression weights, the structural model of effect from each variable to entrepreneurial ambition in the current study is illustrated in Table 7, which can be found below. This model describes the relationship between the variables. This section is helpful in examining the exact influence that each of the three independent variables, which are Innovation and Entrepreneurship Education, Entrepreneurship Attitude, and Subjective Norms, have on each of the dimensions. The results that were discovered in the section before this one, which provided evidence in favor of the first three hypotheses, serve as the foundation for this current section. According to the data presented in Table 7, it is evident that the influence of Innovation and Entrepreneurship Education on Entrepreneurial Intention is not statistically significant ( $\beta=0.048$ ,  $p>0.05$ ). This conclusion can be drawn from the data presented. Nevertheless, it is important to acknowledge that the attitude towards entrepreneurship has a significant positive impact on the intention to engage in entrepreneurial activities ( $\beta=0.186$ ,  $p<0.05$ ). When this is taken into consideration, the entrepreneurial mindset is one of the predisposing attributes that has a direct influence on the intention to engage in entrepreneurial activity. In spite of the fact that predisposing characteristics as a whole have a significant connection with the intention to engage in entrepreneurial activity, this circumstance takes place nonetheless.

Table 7: Structural Model of the Study with Standardized Regression Weights

path	Standardized	Standardized	S.E.	C.R.	P	Results
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			Coefficient	Coefficient				
HU	<---	IEE	0.048	0.038	0.037	1.024	0.306	refused
HU	<---	EA	0.186	0.164	0.045	3.672	***	supported
HU	<---	SN	0.254	0.22	0.047	4.667	***	refused
HU	<---	PBC	0.053	0.04	0.039	1.033	0.301	refused
HU	<---	ESE	0.05	0.042	0.043	0.977	0.328	refused
HU	<---	EI	0.199	0.178	0.049	3.624	***	supported
HU	<---	DEM	0.19	0.168	0.048	3.49	***	supported
HU	<---	ES	0.033	0.035	0.056	0.626	0.531	refused

### Moderation Analysis

To Preacher, Rucker, and Hayes (2007), a moderating effect is observed when the strength of the relationship between two variables is influenced by a third variable. A moderator is a supplementary independent variable that the researcher may control and serves to modify the impact of independent factors on the dependent variable. A moderator is a variable that establishes the context in which the independent variable is associated with the dependent variable. Conventionally, the moderating impact is examined based on three specific conditions: The moderator effect has three main effects: firstly, it amplifies the impact of the independent variable on the dependent variable; secondly, it diminishes the impact of the independent variable on the dependent variable; and thirdly, it counteracts the impact of the independent variable on the dependent variable. To examine the moderating impact of inter-generational support in the particular model, we utilized multi-regression analysis. More precisely, the interaction effect between the independent variable and changed variable is quantified to determine if these interactions impact the dependent variable.

### Moderation Analysis of IS between PC and HU

Initially, it is necessary to generate standard variables for the moderator and independent variable, referred to as the dummy variable, to ensure the absence of significant association between the two variables. To perform the adjustment test, initially decentralize the Gender, Entrepreneurial Experience, Self-Employed Families and Entrepreneurial Spirit variables, then thereafter multiply them to derive the interaction term Gender, Entrepreneurial Experience, Self-Employed Families \*Entrepreneurial Spirit. The dependent variable, Entrepreneurial Intention, is affected by independent variables: Innovation and Entrepreneurship Education, Entrepreneurship Attitude, Subjective Norms, and the outcome variable resulting from the interaction between the independent parameters and the moderating factor. Each of the three factors has a separate and independent impact on the dependent variable Entrepreneurial Intention. To assess the impact of independent variables, moderating factors, and interaction terms on the dependent variable, the linear regression equation involving these three components is as follows:

$$Y = \beta_0 + \beta_1 X + \beta_2 M + \beta_3 XM + e$$

In this study, the dependent variable is Entrepreneurial Intention, the independent variable is X, and the moderating factors are Gender, Entrepreneurial Experience, Self-Employed Families, and Entrepreneurial Spirit. The interaction effect between the independent variable and the moderating factor is Entrepreneurial Self-Efficacy, and  $e$  represents the measurement error value. Conceptually, the conventional regression coefficient  $\beta$  The significance level of 3 ( $p < 0.05$ ) indicates that the adjustment factor in the present study model effectively rectifies the association between independent factors and dependent variables. A hierarchical multiple regression approach is employed to quantify the moderating impact between the independent and dependent variables. Additionally, linear regression tests are performed on the values of three variables: independent variable X, moderating variable M, and interaction variable. The analysis of Table 8 reveals that the variable PC \* IS has a statistically significant negative impact of HU = -0.237 ( $p < 0.05$ ). This suggests that IS plays a negative regulatory role in the relationship between Innovation and Entrepreneurship Education and Entrepreneurial Intention.

Table 8: Moderating Influence of Entrepreneurial Spirit between Innovation and Entrepreneurship Education and Entrepreneurial Intention

Model	Unstandardized Coefficients		Standardized Coefficients		t	p	R Square	F
	B	Std. Error	Beta					
1	(Constant)	3.639	0.031		116.015	0.000	0.323	214.974***
	ES	0.511	0.035	0.569	14.662	0.000		
2	(Constant)	3.639	0.031		117.889	0.000	0.346	118.812***
	ISS	0.467	0.036	0.520	12.956	0.000		
	EI	-0.154	0.039	-0.159	-3.956	0.000		
3	(Constant)	3.591	0.031		116.658	0.000	0.395	97.69***
	ES	0.390	0.037	0.434	10.554	0.000		
	EI	-0.198	0.038	-0.204	-5.188	0.000		
	ISS*EI	-0.210	0.035	-0.237	-6.050	0.000		

### Moderation Analysis of ES between EI and ISS

The test that is presented below is utilized in order to evaluate the moderating function that the second independent variable, enabling resources, plays within the framework of the study. To be more specific, the interaction term EI \* ES is produced by decentralizing EI and ISS. This is accomplished by taking EI as the independent variable and ES as the moderating variable.

Following this, the EI is utilized as the dependent variable for the moderation analysis, as shown in Table 9. It is possible to draw the conclusion, based on the table, that the combined effect of ISS and EI, which has a coefficient of  $\beta = -0.167$  ( $p < 0.05$ ), has a statistically significant negative impact. Consequently, this lends credence to the idea by indicating that ES has a regulatory influence that is detrimental to the relationship between ISS and EI.

Table 9: Moderating Influence of ES between GEEF and EI

Model		Unstandardized Coefficients		Standardized Coefficients	t	p	R Square	F
		B	Std. Error	Beta				
1	(Constant)	3.639	.028		128.425	.000	0.448	364.845***
	ES	.679	.036	.669	19.101	.000		
2	(Constant)	3.639	.028		131.987	.000	0.478	205.834***
	GEEF	.639	.035	.629	18.006	.000		
	EI	-.174	.034	-.179	-5.129	.000		
3	(Constant)	3.617	.027		132.091	.000	0.502	150.827***
	GEEF	.582	.037	.574	15.845	.000		
	EI	-.214	.034	-.221	-6.259	.000		
	GEEF*EI	-.152	.033	-.167	-4.666	.000		

## Discussion

Researchers investigate the ways in which entrepreneurial attitude, perceived behavioral standards, and perceived behavioral control interact with one another in this study that is based on the idea of planned behavior. In addition, the purpose of the study was to investigate the ways in which these factors influenced the behaviours and attitudes of persons toward entrepreneurship. According to the theory of planned behavior, there are a number of practical considerations that influence an individual's entrepreneurial behavior. These considerations include the individual's behavioral preferences, social network connections, entrepreneurial skills, and available resources, in addition to the individual's intention to engage in entrepreneurial activity. When all of the necessary criteria are satisfied, the entrepreneurial intent of an individual can have a direct influence on the actions that they take in the entrepreneurial realm. The individual's perceived behavioral control, which is sometimes referred to as entrepreneurial self-efficacy, is another aspect that holds the potential to influence the entrepreneurial behaviors of an individual. The majority of the elements that influence an individual's mentality and actions regarding

entrepreneurship are contextual. These factors include, but are not limited to, gender, race, personality, experience, and socioeconomic standing when it comes to entrepreneurship.

People who desire to start and run their own enterprises do so because they have an entrepreneurial intention, which is independent of any constraints or influences that come from the outside world. According to Bird (1988), the purpose of an entrepreneur is the mental state that drives them to pursue the objective of taking risks in order to pursue possibilities. According to Ajzen (2015), it is generally accepted that the majority of individuals make the decision to launch their own enterprises on purpose and with intention, rather than as a complete and utter coincidence. According to Ajzen (1991), the term "intention" refers to the degree to which individuals are determined to carry out a specific activity. One of the arguments put out by Ajzen (2005) is that intentions are not transformed into acts until the moment is right. As a result, one way to think about intention is as a measurement of how determined and devoted a person is to making an effort to do a certain activity. In accordance with Ajzen, "intention" is characterized by "the degree to which an individual is committed to making an effort to carry out a specific behavior" (1991). According to Ajzen (2005), a person's intention is their tendency to behave in a specific manner and their effort to put that tendency into actuality when the circumstances are favorable. Therefore, intention can be defined as the amount of determination and effort that an individual puts forth in order to do a task up until the point at which the possibility to proceed with the work presents itself. According to Bird (1988), the two primary objectives of entrepreneurs are to either establish a new business or to enhance the value of an existing business.

To put it another way, the goal of an entrepreneur is their mentality with regard to the creation of new value for an existing company or the launch of an entirely new business enterprise. When we talk about entrepreneurial conduct, we are referring to the attitudes and capabilities that a person demonstrates in relation to entrepreneurship, as well as their perspective on the subject. The mental reaction of an individual to the idea of beginning a new company venture is referred to as entrepreneurial intention. The only thing that there is to it is a mental picture of what it takes to start a company from the ground up. According to Thompson (2009), the definition of entrepreneurial intention is the future purposeful objective of an individual to develop a new firm. Based on the findings of Bagozzi and Yi (1989), the most effective method for predicting the behavior of an individual is to have an understanding of the reasons behind their current conduct. There has been a long-standing consensus that the "intention" of entrepreneurs (Katz & Gartner, 1988) is of utmost importance when it comes to the establishment of new firms (Thompson, 2009). Numerous research have demonstrated that this "intention" properly predicts the actions that entrepreneurs will actually take. Krueger et al. (2000) made the observation that the majority of entrepreneurial initiatives are planned out in advance that they are undertaken. (Crant, 1996) or (Krueger et al., 2000) define entrepreneurial ambition as the desire to create one's own firm or to own one's own organization. This is a typical description of entrepreneurial ambition. According to Ajzen (1991) and Ajzen and Fishbein (1977), the term "intention" has been used for a very long time to describe the process of anticipating one's own action. According to specialists in the field of social psychology (Bagozzi et al., 1989), the best indication of future conduct is one's intention. The idea that one ought to anticipate a corresponding action to follow the establishment of an intention is held by a significant number of people. Entrepreneurial intention, which may be defined as the mental state that one enters shortly before taking action, is a significant factor that



plays a significant role in determining whether or not an individual will decide to start a new business endeavor. A significant number of individuals are of the opinion that it is the most accurate predictor of future entrepreneurial behavior. In accordance with the findings of Liñán and Fayolle (2015), the concept of entrepreneurial intention has been widely acknowledged as an essential component of the field of entrepreneurial research due to its ability to accurately forecast and forecast long-term entrepreneurial actions. As a result, the entrepreneurial aspirations of university students have become the focus of an increasing body of research (Pa et al., 2011; Sánchez 2013; Støren 2014; Zhang et al., 2014). To put it another way, Fishbein et al. (1975) found that the most significant correlation between an individual's entrepreneurial action and their behavioral intention was found to be on the other side of the coin. When it comes to predicting future conduct, behavioral intention is the most dependable sign. In his article from 1988, Bird makes the argument that genuine entrepreneurial conduct can only develop from individuals who have an intense drive to achieve success. In the same vein, the level of education that a person possesses has a major impact on the likelihood that they will engage in entrepreneurial activities (Pittway, 2007). The objective of this study is to construct a mechanistic model and carry out research on the ways in which education about innovation and entrepreneurship influences the intention to engage in entrepreneurial activity.

In addition to having a stronger desire to see their enterprises flourish, those who have the aspiration of becoming entrepreneurs are more inclined to engage in activities that are associated with entrepreneurship. Therefore, it is of the utmost importance to ascertain the elements that influence the willingness to initiate the process of starting a business. It is believed that the decision to launch a new business is influenced by a variety of different elements. Su, Bird, and others (1988) state that an individual's intention to engage in entrepreneurial activity can be impacted by both internal and external factors depending on the circumstances. According to Indarti and Rostiani (2008), there are three primary elements that have an impact on the intention to engage in entrepreneurial activity. To begin, there are aspects of one's personality that include a strong desire to achieve success and a self-assured belief in one's own capabilities. The second aspect of environmental influences is the accessibility of knowledge, social networks, and financial resources. The last category of characteristics is known as demographic characteristics, and it include aspects such as age, gender, level of education, and years of experience working in the workforce. Furthermore, an individual's predisposition to engage in entrepreneurial endeavors can be influenced by a variety of characteristics, including but not limited to age, gender, family history, religious beliefs, degree of education, and years of work experience. Both Reynolds et al. (1994) and Storey (1994) are frequently mentioned as examples of demographic factors (Robinson et al., 1991). An investigation was conducted by Espiritu and Sastre (2007) to study a number of factors that inspire college students to pursue their goals of becoming entrepreneurs. There were a number of factors that were taken into consideration, including academic readiness, personality, ethics, social and humanistic characteristics, and personality. Skudiene et al. (2010) investigated the ways in which the contextual conditions, psychological and non-psychological attributes, and the intention to establish a business among college students in Lithuania influenced their decision to pursue entrepreneurship. In addition, research conducted by Pines et al. (2010), Cohoon et al. (2010), Teixeira (2008), and Fischer et al. (2003) has demonstrated that male students are more likely to have entrepreneurial objectives than female students. Furthermore, according to Shmidt (2008), students who come from an entrepreneurial background are more likely to demonstrate a

high level of independence and innovation in their entrepreneurial ventures during their time in school.

In this regard, education that places an emphasis on innovation and entrepreneurship is of the utmost importance, as empirical evidence demonstrates that said education has an effect on an individual's desire to engage in entrepreneurial endeavors. People should be encouraged to pursue their entrepreneurial impulses (Hattab, 2014; Franke & Lutjhe, 2014). This is of the utmost importance. Inadequate education on innovation and entrepreneurship will lead to decreased levels of entrepreneurial intention. This will be the result of the situation. According to Silva (2013), those who have been instructed to become entrepreneurs are more likely to go on an entrepreneurial journey than those who have not received such instruction. Cho (1998) makes a similar argument, arguing that formal education is essential for encouraging people who are interested in starting their own businesses. For the straightforward reason that by gaining an understanding of the fundamentals of entrepreneurship, individuals are motivated to embark on their own journey and establish their own companies. Consequently, it follows that supporting education as a means of encouraging entrepreneurial activity can, as a result of learning, inspire individual entrepreneurship (Gorman et al., 1997; Kuratko, 2003; Donckels, 1991). This is because education is a way to encourage entrepreneurial activity. According to research conducted by Gorman et al. (1997) and McMullan et al. (2002), specific programs that encourage entrepreneurship have been demonstrated to motivate entrepreneurs to initiate or strengthen their business operations. A larger predisposition towards entrepreneurship has also been noted among students who have participated in entrepreneurship education programs.

## Conclusion

The rise of the knowledge economy is impossible without higher education, and the competition between information and technology is a microcosm of the larger fight between educational institutions and the skills they instill in their pupils. China's educational landscape has changed dramatically since 1999, when enrollment in higher education began to rise. Personal attitudes about entrepreneurship, which include emotional and evaluative traits, are heavily influenced by an individual's subjective psychological state. Teaching students to think creatively and independently is critical, as research indicates that this type of training increases students' desire to start their own businesses. Hattab (2014) and Franke and Lutjhe (2014) contend that individuals should be encouraged to pursue their entrepreneurial instincts. Your attention to this topic is crucial. Inadequate education in innovation and entrepreneurship leads to lower entrepreneurial intention. The situation will result in this outcome. Some people are more likely to pursue an entrepreneurial career after obtaining assistance (Silva, 2013) than those who do not. Cho (1998) says that formal education is essential for encouraging people to start their own businesses. The most basic reason is that knowing the intricacies of entrepreneurship motivates people to go out on their own and start their own firms. According to Gorman et al. (1997), Kuratko (2003), and Donckels (1991), education can encourage people to become entrepreneurs and promote entrepreneurial activity. Schooling can encourage initiative and self-sufficiency. Both Gorman et al. (1997) and McMullan et al. (2002) discovered that engaging in focused entrepreneurial programs increased entrepreneurs' likelihood of starting or expanding their enterprises. Participants in entrepreneurship education programs have also been shown to have a greater proclivity for entrepreneurship.

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