
PSYCHOLOGICAL PERCEPTION-BASED ANALYSIS ON THE INFLUENCE OF ENTREPRENEURSHIP EDUCATION ON ENTREPRENEURIAL INTENTION

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Abstract

This paper explores the influence of entrepreneurship education on the intention to start a business (entrepreneurial intention) from the angles of desirability, feasibility and perceived risk. The perceived risk covers multiple dimensions: economic risk, social risk, time risk, health risk and personal risk. Firstly, a structural equation model was extended from Shapero and Sokol's model of entrepreneurial event, aiming to describe the influence from the perspective of psychological perception. Then, the established model was applied to explain a sample of 362 senior college students in China, all of whom have received entrepreneurship training. The results show that both desirability and feasibility mediate the relationship between entrepreneurship education and entrepreneurial intention. In addition, the multiple dimensions of the perceived risk differ in their influence on the relationship between entrepreneurship education and entrepreneurial intention: the social risk mediates the relationship, while the other dimensions have no significant impact on the relationship. The research findings help to understand the decision-making mechanism of entrepreneurs, facilitate the formulation of entrepreneurial policies, and promote the development of entrepreneurship education.

Key words: Entrepreneurship Education, Entrepreneurial Intention, Desirability, Feasibility, Perceived Risk.

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INTRODUCTION

Understanding the formation of entrepreneurial intention is important for our understanding of the study of entrepreneurial behavior. Because research on intentions clearly demonstrates that intentions are the single best predictor of planned behaviors. Intentions establish key initial characteristics for new organizations (Katz & Gartner, 1988). There are many factors will influence on the entrepreneurial intention, such as personal traits (David, Dawes, Johannesson et al., 2009) entrepreneurial cognition (Bird, 1988; Kruegerjr, Reilly, & Carsrud, 2000), entrepreneurial risk (Tofan & Semizhon, 2017) et al.

Particularly, the role of entrepreneurship education has been called for as one of the key instruments to increase the entrepreneurial intention (Potter, 2008). There are many researches focus on the effect of entrepreneurship education on the entrepreneurial intention. Most of studies give us the result that entrepreneurship education has the positive impact on the entrepreneurial intention (Herman & Stefanescu, 2017). However, Nabi, Walmsley, Liñán et al. (2018) pointed out that the influence of entrepreneurship education is variable, in some cases even leading to a decrease in entrepreneurial intention. There is no doubt that some articles focus on exposing the mechanism on how does entrepreneurship education influence on entrepreneurial intention, or considering the difference in this relationship between entrepreneurship education and entrepreneurial intention with different contextual factors, such as

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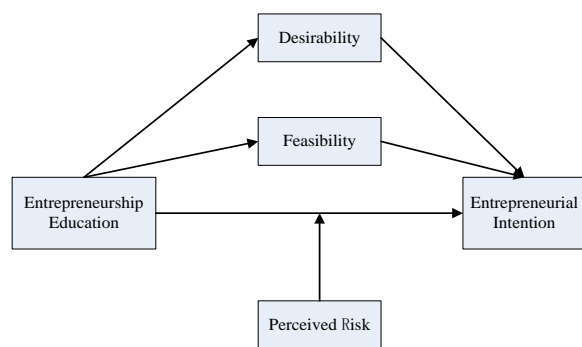
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gender, absorptive ability, entrepreneurial orientation and environmental factors (Entrialgo & Iglesias, 2017).

Based on the existing research, this paper wants to follow this inquiry, from the perspective of psychological perception, to explore the question how does entrepreneurship education influence on entrepreneurial intention using the mediating variable—desirability and feasibility. In addition, we explore the moderating effect of perceived risk on this question.

This paper provides two fundamental contributions with respect to the previous literature. Firstly, we derive the hypotheses for the mediating role of the desirability and the feasibility and the moderating role of perceived risk in the relationship between an entrepreneurship education and entrepreneurial intention. Secondly, the effect of perceived risk on entrepreneurship is examined from a multi-dimensional perspective including economic, social, time, health and personal risk, which were rarely been referred in the existing literatures.

Figure 1. Proposed model for entrepreneurship education and entrepreneurial intention



The paper is organized as follows. First, we lay out the theoretical foundations of the study and derive the hypotheses. On that basis, we propose the model for entrepreneurship education and entrepreneurial intention with the mediating role of desirability and feasibility and the moderating role of perceived risk, as figure 1. Next, we describe our methodology and present the results. Finally, we discuss our findings, state the implications of our study, and identify limitations and directions for future research.

LITERATURE REVIEW AND HYPOTHESIS

Entrepreneurial intention

According to the definition of intentionality (Bird, 1988), entrepreneurial intention can be defined subjective attitude of potential entrepreneurs towards whether they are engaged in entrepreneurial activities or not. There are many factors can directly or indirectly affect the entrepreneurial intention, such as entrepreneur' traits and personalities e.g., the big five (Espíritu-Olmos & Sastre-Castillo, 2015), risk-taking propensity (Zhao, Seibert, & Hills, 2005), self-efficacy (Barbosa, Gerhardt, & Kickul, 2007), exposure to entrepreneurial activity and gender.

Research has proposed several conceptual models for understanding entrepreneurial intention, including Stimulus-Organism-Response(S-O-R) model (Mehrabian & Russell, 1974), the theory of Planned Behavior model, the relationship of belief-attitude-intention model (Kruegerjr, Reilly, & Carsrud, 2000) and so on. Our current study is guided by the entrepreneurial events model proposed by Shapero and Sokol (2009). The entrepreneurial event theory regards that the interaction in contextual factors can have the effect on the individual's perceptions, further, the individual's perceptions will affect the firm creation. If some external event makes the change, the entrepreneurial option would take place (Peterman & Kennedy, 2010). People's answers to that external event may depend on their perceptions about the available options. There are two basic kinds of perceptions: desirability and feasibility. Desirability is defined as the degree to which he/she feels desirable to become an entrepreneur. Feasibility is defined as the degree to which people regard themselves have the ability to implement some behavior to become an entrepreneur. Mentors or partners are decisive element in establishing the individual's entrepreneurial feasibility level in the presence of role models. In a word, both types of perceptions are determined by cultural and social factors, through their influence on the individual's values system and further affect the desirability and feasibility (Shapero & Sokol, 2009). Therefore, external circumstances would not determine firm-creation behaviors directly, but rather they would be the result of the (conscious or unconscious) analysis carried out by the person about the desirability and feasibility of the different possible alternatives in that situation.

Entrepreneurship education

In general, entrepreneurship education can be defined as the process of supplying idea and technical ability for people to recognize opportunities that others have ignored and to have the insight and overconfident to act where others have hesitated (Kuratko, 2005). However, there are different kinds of entrepreneurship education objective on developing particular stages (Gorman, Hanlon, & King, 1997). For different audiences, scholars always have different kinds of entrepreneurship education. For example, education for awareness is for students who had no experience to do a business. The objective of the entrepreneurial awareness education is to help students learning entrepreneurial skills, and to help them in choosing a proper career. Many university-level programs are devoted to increase entrepreneurial awareness and to focus on preparing aspiring entrepreneurs (O'Conneide & Garavan, 1994). As our discussion, entrepreneurship education can be defined as arousing greater awareness for students who had not make the decision on pursuing employment versus entrepreneurship or who had not experienced beginning their own businesses prior to enrolling in entrepreneurship courses.

Perceived risk

Risk factors cannot be ignored during the entrepreneurial decision-making process. Risk is a basic and key factor in general theory of entrepreneurship (Elston & Audretsch, 2011) Kuechle (2013) postulates that risk is implicit in entrepreneurship, related to creating a new market, identifying an opportunity or starting up a business. The factors affecting entrepreneurial intention is not only objective risk, but the perceived risk. Perceived risk is an individual's direct perception and subjective assessment of the objective risk factors in the dynamic and changeable social environment. Some researchers indicate that entrepreneurial behavior is affected

by risk perception (Kickul, Gundry, Barbosa, 2007). Furthermore, Kickul, Gundry, Barbosa (2007) shows risk taking and the perception of risk are multi-dimensional, depend of the context. The main perceived risk dimensions can be identified as perceived economic risk, perceived social risk, perceived time risk, perceived health risk and perceived personal risk according to the existing academic literatures on entrepreneurship risk. Giordano Martínez, Herrero Crespo, Fernández-Laviada (2017) had made a review about multi-dimensional perception of risk, which was shown as below Table 1.

Influence of the entrepreneurship education on the entrepreneurial intention

There are many factors affect the entrepreneurial intention. Amongst these factors, the function of entrepreneurship education to the entrepreneurial intention can't be ignored. Through receiving entrepreneurship education, individuals can improve innovative thinking and entrepreneurship skills, master diversified background knowledge, and be better at identifying entrepreneurial opportunities than ordinary individuals. Therefore, entrepreneurship education can cultivate a large number of individuals with high entrepreneurial intention. On the contrary, when the knowledge of entrepreneurship is insufficient, it is difficult for them to understand the key issues of why, when and how to start a business, and the lack of a comprehensive understanding of entrepreneurial activities may lead to their decision to give up entrepreneurship.

Based on above analyzation, there are many empirical researches show that there is positive effect between entrepreneurship education and entrepreneurial intention (Desai, 2017). For example, Barba-Sánchez & Atienza-Sahuquillo (2018) made the study on the need for independence is the key factor in the entrepreneurial intent of future engineers and

Table 1. Perceived risk dimensions: definition and support on entrepreneurship literature

Dimension	Definition
Economic risk	Associated with a potential economic or financial loss, directly or indirectly caused in the process of starting a new business
Social risk	Associated with a potential harm in prestige or social recognition in case of failure by starting a new business
Time risk	Associated with the potential difficulty to meet other personal and professional responsibilities, given the time required by starting a new business
Health risk	Associated with the potential negative impact on the physical and psychological health, due to the effort required by starting a new business
Personal risk	Associated with the potential negative impact on the individual's personal development

confirm the positive contribution that entrepreneurship education has on their entrepreneurial intention. Kim & Park (2018) emphasized that entrepreneurship education could promote the entrepreneurial intention when they aimed to draw on Piaget's theory of assimilation and accommodation (absorptive capacity) as having mediating roles to examine the effect of motivational factors in entrepreneurship education on entrepreneurial intention among engineering students. Westhead & Solesvik, (2015) believed that the positive correlation relationship between participation in entrepreneurship education and intensity of entrepreneurial intention is moderated by gender. Sun, Lo, Liang et al. (2017) bridged specific education components and entrepreneurial intention, providing significant insight into how the key components positively influence the entrepreneurial attitudes and intentions of students. It fills the gap in the knowledge required for fostering entrepreneurial intention through entrepreneurship education. We therefore form the following hypothesis on the impact of entrepreneurship education on entrepreneurial intention:

H1: Entrepreneurship education is positively related to entrepreneurial intention.

The mediating effect of the desirability and feasibility on the relationship between entrepreneurship education and entrepreneurial intention

Firstly, entrepreneurship education can influence the desirability and feasibility of entrepreneur. This relationship can be explained by social learning and self-efficacy theories. Career socialization theory proposes that the decision to initiate a career is influenced by many social factors including exposure to educational experiences. Entrepreneurship education may influence a person's desire to pursue a career congruent with his or her learning experiences (Shapero & Sokol, 2009). Because it can provide social experiences, such as opportunities to exercise significant responsibilities, to start one's own business and to observe role models. Hence, the desirability of starting a business could be influenced by enterprise educational experiences. The research by Locke (1986) shows that self-efficacy relates to a person's perception of ability to execute a target behavior. The model proposed by Shapero assumes that self-efficacy is central to intentions towards entrepreneurship and

specifically influences the feasibility of starting a business (Shapero & Sokol, 2009). So entrepreneurship education are expected to increase the self-efficacy of entrepreneur.

Secondly, the desirability and feasibility influence on entrepreneurial intention (Bazzy, Smith, & Harrison, 2019). The model of the 'Entrepreneurial Event' (SEE) shows that intentions to start a business derive from perceptions of desirability and feasibility and from a propensity to act upon opportunities (Shapero & Sokol, 1982). The SEE model is implicitly an intention model, specific to the domain of entrepreneurship. Urban & Kujinga (2017) indicates that both feasibility and desirability positively affect intentions.

Based on the above analyzation, we can form the following hypothesis on the function of desirability and feasibility on the relationship between entrepreneurship education and entrepreneurial intention.

H2a: The desirability plays the mediating effect on the relationship between entrepreneurship education and entrepreneurial intention

H2b: The feasibility plays the mediating effect on the relationship between entrepreneurship education and entrepreneurial intention

The moderating effect of the perceived risk on the relationship between entrepreneurship education and entrepreneurial intention

Due to the differences on the ability of collecting and reading information, entrepreneurial perceived risk is different when entrepreneur started a business. If entrepreneurs have different perceptions of risk, they may have different behavior: If they perceive high risk, they may not continue to start a new business, while if they perceive low risk, they will go on their entrepreneurial process. In other words, risk perception can explain why individuals choose to start a business. There are two situations in risk perception: one is to magnify the risk, that is, to perceive the higher risk. In this case, the entrepreneur will have a greater sense of loss, and thus will reduce his entrepreneurial behavior. The second is to weaken the risk, that is, to perceive a lower risk. The entrepreneur will thus generate a sense of profit, thereby increasing his entrepreneurial behavior. Even though entrepreneurs have received the same entrepreneurship education, some will conclude that this situation is very dangerous, while others will argue that it is not (Casey & Nutt, 1986).

People who think the risks are low are more likely to unknowingly take risks than those who are prone to high risk. Thus, theory and empirical evidence lead to the following hypothesis:

H3a: The perceived economic risk plays the moderating effect on the relationship between entrepreneurship education and entrepreneurial intention.

H3b: The perceived social risk plays the moderating effect on the relationship between entrepreneurship education and entrepreneurial intention.

H3c: The perceived time risk plays the moderating effect on the relationship between entrepreneurship education and entrepreneurial intention.

H3d: The perceived health risk plays the moderating effect on the relationship between entrepreneurship education and entrepreneurial intention.

H3e: The perceived personal risk plays the moderating effect on the relationship between entrepreneurship education and entrepreneurial intention.

RESEARCH METHODOLOGY

Context of the research

During the last decade, China has been trying to stimulate economic growth through implementation of innovation and entrepreneurship education. The Chinese government and relevant organizations have issued a number of policies to promote business education by focusing on entrepreneurship education and entrepreneurial culture in Chinese universities. China's increasing focus on entrepreneurship education provides a favorable environment for entrepreneurial research, which can measure the new educational initiatives' effect on university students' entrepreneurial intention.

Setting and participants

In order to empirically contrast the proposed research hypotheses, a quantitative investigation was carried out using surveys of Senior undergraduate and graduate students. To ensure the variability and representativeness of respondents, we selected students from different universities. These students have participated in a one-week entrepreneurship education and training activity. After the training activity, we conducted a questionnaire survey on them, covering basic information, entrepreneurship education, the desirability, the feasibility,

perceived risk and entrepreneurial intention.

Of the 424 questionnaires distributed, 396 were returned, of which 34 were subsequently discarded because of incomplete information. The 362 fully completed questionnaires (response rate of 85.4%) were from 152 males (42%) and 210 females (58%). In terms of grade distribution, the third grade accounted for 32%, the fourth grade accounted for 46%, and the graduate students accounted for 22%.

Design and measure

The questionnaire was developed and pretested on a small sample of students for validation purposes. The study's constructs were entrepreneurship education, the feasibility, the desirability, and perceived risk and entrepreneurial intention. The information that was collected was brought together using a questionnaire in which the variable in the theoretical model was measured with a multi-item scale. This makes it possible to obtain evaluations of psychological variables that cannot be quantified directly (Iacobucci & Churchill, 2002). The evaluations were found using the Likert scale of five positions (1=strongly disagree with the affirmation made and 5=strongly agree). The scales used for the measurement of entrepreneurial intention and the desirability and feasibility associated with that behavior were adapted from the studies of Liñán and Chen (2010). The scales for measuring the dimensions of economic, social and personal risk were adapted from the proposals of Barbosa, Gerhardt, & Kickul (2007), while the scales for time and health risks were developed using the studies of Ahmad and Salim (2009).

Entrepreneurship education

Refer to the measurement scale of the Franke and Lüthje (2004) and Turker and Selcuk (2009), entrepreneurship education was measured through seven statements that assessed whether participants have abundant educational resources (five items) and whether they have received sufficient entrepreneurship education (five items) from both objective and subjective aspects. All statements were measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The desirability

Following Soriano, Guzmán-Cuevas, & Guzmán-Alfonso (2012), the desirability was measured

through four statements on a five-point Likert scale, which assessed the degree of attraction of starting a new business for participants.

The feasibility

Following Shapero and Sokol (2009), the feasibility was measured through four statements on a five-point Likert scale. The scale assessed the degree to which participants believe they are capable of starting a business.

Perceived risk

Perceived risk was assessed by means of five risk dimensions identified by Giordano Martínez, Herrero Crespo, and Fernández-Laviada (2017): economic risk, social risk, time risk, health risk, and personal risk. Each dimension was measured by four items, and the influence of the risk dimensions on the desirability and the feasibility associated with entrepreneurship was considered as well.

Entrepreneurial intention

Entrepreneurial intention was measured through four statements that assessed whether participants intended to start a new business. All statements were measured on a five-point Likert scale and were adapted from Liñán and Chen (2010).

RESULT

Assessment of measures and common method bias

The structural equation model (SEM) method was applied in the tests. This method allows the use of multi-item scales to estimate the correlation and causality between potential factors. So, it is particularly appropriate to study the psychological variables that cannot be directly observed, e.g., in our study. Prior to estimating the measurement model, we conducted exploratory (EFA) and confirmatory factor analyses (CFA) to assess the convergent and discriminant validity, reliability, and unidimensionality of the factor structures. Besides, AMOS21.0 software was used to estimate measurement models and structural models using the Maximum Likelihood Robust method. The results of the CFA summarized in Table 2 confirm the convergent validity of all the measurement scales.

Convergence validity and discriminant validity were tested according to the procedures proposed by Anderson and Gerbing (1988). The degree of

association between the tools of measuring the underlying factors was tested using the method by Murtagh and Heck (2006). If the reliability of all entries reaches 95% of the significance level and the normalized lambda coefficient is higher than 0.5, the convergence validity of the measurement scale can be confirmed. The CFA results summarized in Table 3 confirm the consistency and validity of all measurement scales.

In addition, the calculation results of the goodness-of-fit index indicate the correctness of the model. Based on the statistical data given by AMOS 21.0, and the parameter indicators proposed in the literature (Byrne & Peter, 1994) and widely used in SEM, it's confirmed in Table 3 that BBNFI, BBNNFI, IFI and CFI statistics exceed the recommended minimum of 0.9, while the RMSEA is below the maximum limit of 0.08, so the model has good goodness of fit.

Discriminant validity is the degree of the correlation and difference between two potential factors. Anderson and Gerbing (1988) believe that discriminant validity can be determined if the confidence interval for the correlation between potential factors does not include 1 (maximum correlation). The results summarized in Table 4 confirm the discriminant validity of all measurement scales.

What's more, the reliability of the scale was evaluated by calculating the joint action of Cronbach's alpha, Composite reliability and AVE (Bagozzi & Yi, 1988). The values of these statistics (Table 2) were in each case higher than the required minimum values of 0.7 and 0.5. Therefore, the internal reliability of the assumed structure was supported.

It can be seen from Table 3 that entrepreneurship education significantly affects entrepreneurial intentions, and both are positively correlated, that is, H1 is supported.

Mediation analysis

Figure 2. Desirability's mediation effect test between entrepreneurial education and entrepreneurial intention

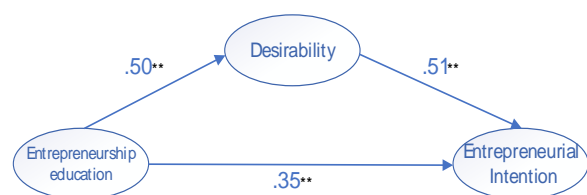


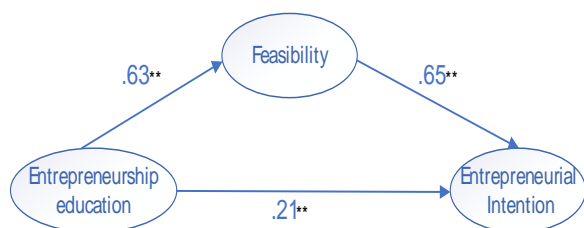
Table 2. CFA for model variables

latent variable	measured variable	Stand.Lambda	R ²	α Cronbach	AVE	Goodness of fit
Entrepreneurship education	B1	0.77	0.59	0.947	0.616257143	BBNNFI=.916 RMSEA=.069 IFI=.926 CFI=.925
	B2	0.83	0.69			
	B3	0.86	0.78			
	B4	0.9	0.8			
	B5	0.9	0.81			
	B6	0.82	0.67			
	B7	0.85	0.73			
Entrepreneurial intention	J1	0.66	0.44	0.904	0.66194	
	J2	0.85	0.72			
	J3	0.86	0.74			
	J4	0.86	0.74			
	J5	0.82	0.68			
Desirability	I1	0.88	0.77	0.943	0.792166667	
	I2	0.9	0.8			
	I3	0.89	0.8			
Feasibility	K1	0.94	0.88	0.932	0.700083333	
	K2	0.93	0.87			
	K3	0.94	0.88			
	K4	0.88	0.78			
	K5	0.62	0.39			
	K6	0.64	0.41			
Economic risk	C1	0.84	0.71	0.901	0.693075	
	C2	0.83	0.7			
	C3	0.83	0.69			
	C4	0.83	0.69			
Social risk	D1	0.71	0.5	0.873	0.639875	
	D2	0.77	0.69			
	D3	0.87	0.76			
	D4	0.84	0.7			
Time risk	E1	0.68	0.46	0.797	0.46975	
	E2	0.7	0.5			
	E3	0.65	0.42			
	E4	0.71	0.6			
Personal risk	F1	0.78	0.61	0.872	0.63245	
	F2	0.77	0.69			
	F3	0.82	0.68			
	F4	0.81	0.65			
Health risk	G1	0.81	0.65	0.875	0.636275	
	G2	0.77	0.6			
	G3	0.81	0.66			
	G4	0.8	0.64			

Table 3. Confidence intervals for the correlations between pairs of latent variables

Latent variable	Education	Intention	Desir	Feasibility	Economic risk	Social risk	Time risk	Personal risk
Intention	.207**	1.000						
Desirability	.147**	.621**	1.000					
Feasibility	.245**	.794**	.465**	1.000				
Economic risk	.155**	-.006	.023	.088	1.000			
Social risk	.264**	.286**	.159**	.328**	.485**	1.000		
Time risk	.200**	.015	.061	.027	.582**	.536**	1.000	
Personal risk	.166**	.118*	.102	.148**	.522**	.728**	.675**	1.000
Health risk	.141**	-.046	.054	.014	.539**	.458**	.670**	.616**

Figure 3. Feasibility's mediating effect test between the entrepreneurial education and entrepreneurial intentions



Entrepreneurship education is positively related to entrepreneurial intentions. In order to test the mediating effect, the two variables Desirability and Feasibility of entrepreneurial intention were used as predictors for regression analysis. Next, through the regression analysis of the main and mediating effects of entrepreneurial intentions respectively, it's found that for each model, entrepreneurship education significantly predicts Desirability and Feasibility, which provides supports for further mediating testing of each model. Subsequently, the two variables Desirability and Feasibility were loaded and verified respectively according to the mediating effect test model shown in Figure 2 and 3.

Table 4. Desirability's fitting index of Desirability mediation model

χ^2	d	$\frac{\chi^2}{df}$	RMSE	CFI	NNF	GFI	IFI
	f	df	A		I		
252.8	8	2.90	0.96	0.96	0.95	0.90	0.96
33	7	6	0.072	4	7	8	5

The parameters in Table 4 validates this model with a good fit. Figure 2 shows that the mediating effect of Desirability between entrepreneurial education and entrepreneurial intention is significant, that is, the H2a mediating effect hypothesis is true: the desirability has a mediating effect on the relationship between entrepreneurship education and entrepreneurial intention.

The parameters in Table 5 validates this model with a good fit. Figure 3 shows that the mediating effect of Feasibility between entrepreneurial education and entrepreneurial intention is significant, that is, the H2b mediating effect hypothesis is true: the feasibility has a mediating

effect on the relationship between entrepreneurship education and entrepreneurial intention.

Table 5. Feasibility's fitting index of Feasibility mediation model

χ^2	df	$\frac{\chi^2}{df}$	RMSE	CFI	NN	GFI	IFI
			A		FI		
742.2	13	5.62	0.90	0.90	0.8	0.79	0.90
28	2	3	0.113	5	9	4	5

Moderating effect

To verify the hypothetical moderating effects, this study used the method of Batista Foguet, Coenders, Saris, & Bisbe (2018) to simultaneously test the direct effects and interaction effects between latent variables. This paper verifies the mediating effects between entrepreneurship education and entrepreneurial intentions in the five dimensions of perceived risk: economic risk, social risk, time risk, health risk and personal. For the sake of simplicity, when calculating the product of the interaction term between the latent variables, the average value of the corresponding item scores in the entrepreneurial education was regarded as the index value of each dimension, and the mean value of the corresponding item scores at each dimension of the perceived risk was taken as the index value. After centralizing all the indicators, the product term of entrepreneurship education and each dimension of perceived risk was calculated, and then the SEM analysis software AMOS21.0 was applied to verify the hypothetical H3 series (H3a, H3b, H3c, H3d, H3e).

Firstly, taking the perceived social risk as an example, the SEM analysis software AMOS21.0 was used according to the moderating effect of verification model in Figure 4. The results show that the fitting statistics of the hypothetical model were: CFI=0.875, GFI=0.835 NNFI=0.854, RMSEA=0.122, and all parameters were better than the empirical threshold, indicating that model 3 is well fitted to the survey data. The path coefficient and T test results are shown in Table 6.

Figure 4 shows that the interaction term between social risk perception and entrepreneurial education had a standardized path coefficient of 0.67 for the entrepreneurial intention, the absolute value of critical value ratio (C.R.) was greater than 1.96, and the significance probability P was less than 0.001. It's assumed that

H3b was supported.

Table 8 shows that the interaction term between the economic risk perception and entrepreneurial education had a standardized path

coefficient of -0.02, the absolute value of critical value ratio (C.R.) was less than 1.96, and the significant probability P was greater than 0.001; it's assumed that H3a wasn't supported.

Table 6. Hypothetical model path coefficients and T test results in the dimension of social risk

Path relationship (Hypothesis)	No-standardized path coefficient	Standardized path coefficient	S.E.	C.R.	P
Social risk→Entrepreneurship education	0.39	0.34	0.066	6.008	***
Social risk→Entrepreneurial intention	-0.37	-0.4	0.044	-8.28	***
Social risk*Entrepreneurship education→Entrepreneurial intention	0.25	0.32	0.009	13.182	***

Figure 4. Perception moderation model

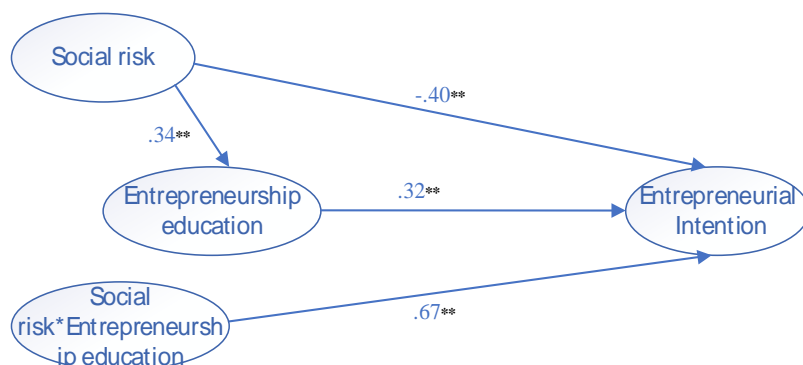


Table 7. Fitting index of social risk perception moderation model

χ^2	df	χ^2/df	RMSEA	CFI	NNFI	GFI	IFI
741.8	116	6.395	0.122	0.875	0.854	0.835	0.876

Table 8. Hypothesis model path coefficient and T test results in the dimension of economic risk

Path relationship (Hypothesis)	No-standardized path coefficient	Standardized path coefficient	S.E.	C.R.	P
Economic risk→Entrepreneurship education	.20	.16	0.073	2.740	.006
Economic risk→Entrepreneurial intention	-.10	-.11	.045	2.395	.022
Economic risk*Entrepreneurship education→Entrepreneurial intention	.00	-.02	.008	-.424	.671

Table 9. Hypothesis model path coefficient and T test results in the dimension of time risk

Path relationship (Hypothesis)	No-standardized path coefficient	Standardized path coefficient	S.E.	C.R.	P
Time risk→Entrepreneurship education	.23	.14	.098	2.308	.021
Time risk→Entrepreneurial intention	-.07	-.06	.060	-1.109	.267
Time risk*Entrepreneurship education→Entrepreneurial intention	.00	-.01	.008	-.202	.840

Table 10. Hypothesis model path coefficient and T test results in the dimension of health risk

Path relationship (Hypothesis)	No-standardized path coefficient	Standardized path coefficient	S.E.	C.R.	P
Health risk→Entrepreneurship education	.13	.09	.079	1.596	.110
Health risk→Entrepreneurial intention	-.12	-.12	.049	-2.434	.015
Health risk*Entrepreneurship education→Entrepreneurial intention	.00	.00	.007	.018	.985

Table 11. Hypothesis model path coefficient and T test results in the dimension of personal risk

Path relationship (Hypothesis)	No-standardized path coefficient	Standardized path coefficient	S.E.	C.R.	P
Personal risk→Entrepreneurship education	.34	.25	.078	4.353	***
Personal risk→Entrepreneurial intention	-.08	-.08	.049	-1.644	.100
Personal risk*Entrepreneurship education→Entrepreneurial intention	.01	.05	.008	1.011	.312

Table 9 shows that the interaction term between the time risk perception and entrepreneurial education had a standardized path coefficient of -0.01 for the entrepreneurial intention, the absolute value of critical value ratio (C.R.) was less than 1.96, and the significant probability P was greater than 0.001; it's assumed that H3c wasn't supported.

Table 10 shows that interaction term between the health risk perception and entrepreneurship education had a standardized path coefficient of 0 for the entrepreneurial intention, the absolute value of critical ratio (C.R.) was less than 1.96, and the significance probability P was greater than 0.001; it's assumed that H3d wasn't supported.

Table 11 shows that the interaction term between the personal risk perception and entrepreneurial education had a standardized path coefficient of -0.05 for the entrepreneurial intention, the absolute value of critical value ratio (C.R.) was less than 1.96, and the significant probability P was greater than 0.001, assuming that H3e wasn't supported.

The results of the moderating effect analysis indicate that among the five dimensions of perceived risk, only social risk plays a significant moderating role in the relationship between entrepreneurship education and entrepreneurial intention.

DISCUSSION AND IMPLICATIONS

Conclusions and discussion

In previous decades, many scholars have conducted researches on the correlation between entrepreneurship education and entrepreneurial intention. However, consensus has yet been achieved. The research result of this paper reveals that it's necessary to explore the functional mechanism of entrepreneurship education from multi-angle and

different factors. At the same time, perceived risk, as a key factor while studying entrepreneurship-related topics, should also be analyzed from multi-angle.

Based on the model of entrepreneurial event, this paper attempts to verify the influence of entrepreneurship education towards entrepreneurial intention. On the basis of rigorous measurement of key factors such as entrepreneurship education, entrepreneurial intention, perceived entrepreneurship desirability and perceived entrepreneurship feasibility, it's proven that there is positive correlation between entrepreneurship education and entrepreneurial intention. On top of that, the study also testifies that desirability and feasibility serve as an partly intermediate between entrepreneurship education and entrepreneurial intention. The research conclusions of this paper agree to the conclusion of the research performed by Peterman and Kennedy (2010) based on the participants in Australia Junior Achievement as well as Solesvik (2013), based on the students of education major. But based on the same model, the empirical study performed by Lanero, Vázquez, Gutiérrez, et al., (2011) indicates that entrepreneurship education exerts a positive effect on perceived entrepreneurship feasibility but a weak impact on perceived entrepreneurship desirability. Therefore, when we study the influence of entrepreneurship education on entrepreneurial intention, it is important to conduct ongoing research on the effect and function channel of the desirability and the feasibility by improving the experimental design scheme and research methods. In addition, it's necessary to jump through hoops of existing theories and explore other factors that may serve as intermediates between entrepreneurship education and entrepreneurial intention. For example, individual innovative thinking, which is another trigger to entrepreneurial intention, may also be a research

emphasis in further study.

AS the role of perceived risk in the entrepreneurial process, this study delves into the analysis of perceived risk as a moderating variable to entrepreneurship by adopting a multi-dimensional approach. Five dimensions of perceived risks for starting a self-owned business, including economic risk, social risk, time risk, health risk and personal risk are identified of the potential losses associated with entrepreneurship. Why do we measure perceived risk by a multi-dimensional approach? On one hand, the perceived risk in the entrepreneurial process itself is a comprehensive and changeable concept, and it is difficult to express clear and consistent test contents in a single measurement question or from a one-dimensional or global perspective. On the other hand, if studies on risk from a multi-dimensional perspective are quite extended in areas such as consumer behaviour, research on this is quite scarce in the area of entrepreneurship. This study makes a good exploration in this research aspect.

Moreover, it is proposed that these risk dimensions associated with the creation of one's own business play the moderating effect on the relationship between entrepreneurship education and entrepreneurial intention. But it is shown that the perceived economic risk, time risk and health risk associated with entrepreneurship does not have a significant influence on the intention of starting one's own business. This implies that the possible economic risk, time risk and health risk perceived as a difficulty in actually creating a new business but do not make entrepreneurship less desirable, at least for college students and nascent entrepreneurs. Particularly, the results obtained with respect to social risk and personal risk are contradictory, and in some cases, positive effects of these risk dimensions are observed on the determinants of entrepreneurial intention. Social risk has a positive influence on the desirability and feasibility of entrepreneurship, and there is also a positive effect observed on the intention to start one's own business. These result, Which seems contrary to the traditional perception of this type of risk as a detractor to entrepreneurship, however, is in accordance with the finding of Giordano Martínez, Herrero Crespo, & Fernández-Laviada (2017). It indicates, from a psychological perspective, risk can be perceived by entrepreneurs not only as a threat but also as an opportunity associated with the potential earning of the new business (Barbosa, Gerhardt, & Kickul, 2007). However, the empirical support for this perception is still limited.

According to the literature review and interviews with entrepreneurs, the attitude towards risk resulting

from entrepreneurship activities and level of such risk are relatively stable variables. What's more, the level of individual perceived risks is formed in a long term. In order to take multi-angle of risks into consideration, this research studies groups of different level of perceived risk from a certain risk dimension, to see whether there is significant difference with respect to entrepreneurship education and entrepreneurial intention. Empirical research reveals that perceived social risk plays a significant role in coordinating entrepreneurship education and entrepreneurial intention. However, this moderating effect is non-significant with regard to perceived economic risk, time risk, health risk and personal risk. That is to say, the level of impact of entrepreneurship education to entrepreneurial intention is partially determined by the level of perceived social risk of the educated.

As the majority of the surveyed are mainly Chinese undergraduates and graduate students, the research result should be igniting for colleges and universities to implement entrepreneurship education and training. Particular emphasis should be placed on the perceived social risk of entrepreneurial behavior when those students participate in entrepreneurship education and entrepreneurship activities. In view of the practice of entrepreneurship education in colleges and universities, on the one hand, most of the students lack the necessary experience of economic risk, time risk, health risk and personal risk from entrepreneurial activities due to deprivation of hands-on entrepreneurial practice. Therefore, the level of subjectively perceived risk from these dimensions is relatively low, resulting less effect on entrepreneurial intention. On the other hand, in the context of China's national condition and social culture, social network and the desire for personal achievements are key factors which determine the entrepreneurial intention of students. Thus, this is looking at individuals with a very positive predisposition towards entrepreneurship and at those who perceive low or moderate risks in that type of behaviour which is in accordance with the finding of Mitchell (1999).

Limitations and future studies

There are some potential limitations in the present study that inform possibilities for future research. First, using a sample of college students who participate in entrepreneurship training activities is quite interesting due to the potential of this group, who are highly sensitive to entrepreneurship. Nevertheless, college students can exhibit lower perceptions of the risks associated with creating their own business (Mitchell, 1999), which could limit the generalisation of the results. It would therefore be interesting to replicate

the research with a sample of entrepreneurs deeply participated in entrepreneurial activities or even study the possible differences of the effects of the risk dimensions between different characteristic groups, such as migrant workers and college graduates. Secondly, From the perspective of psychology, entrepreneurial perceived risk is influenced by national system and social culture. Our sample is drawn from a collectivistic society (i.e., China) based on Hofstede's cultural typology (Hofstede, 2001) that is also a developing Asian country. Consequently, our findings may not be generalisable to developed economies in individualistic cultures like those of the USA or Europe. It is possible to replicate this theoretical model in other countries with different economic, cultural and legal characteristics, which could affect the effects of the risk dimensions associated with entrepreneurship, as a future line of research. Finally, longitudinal studies for entrepreneurial intention are required. Future studies should also include other related variables, such as the personal characteristic variables and situational variables to clarify how entrepreneurial intention will be transmitted over a longtime.

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