

## ***Self-Efficacy as Moderator in Entrepreneurship Education and Entrepreneurial Intention: Comparison between Korean and Chinese University Students***<sup>\*</sup>

by Jun Hwan Yang<sup>\*\*</sup>

---

*Understanding key factors that affect entrepreneurial intention of university students is important to establish effective pedagogy for educating potential entrepreneurs. This cross-cultural study examines the direct effects of entrepreneurship education and self-efficacy on entrepreneurial intention of university students, and further examined how self-efficacy interacts with an entrepreneurship education in promoting entrepreneurial intention of Korean and Chinese university students. Empirical findings of this study suggest that entrepreneurship education and self-efficacy affect significantly entrepreneurial intention of university students in both countries. The proposed moderation effect of self-efficacy was supported for Korea but not China. The implications of the study were discussed and presented in terms of theoretical and practical aspects.*

**Keywords :** *Entrepreneurship Education, Self-Efficacy, Entrepreneurial Intention, Korean University Students, Chinese University Students*

---

### ***I. Introduction***

Entrepreneurship has been of major focus in both academic and practical fields in the last few decades. A general consensus has been made among researchers on the role of entrepreneurship that it accelerates economic development through generating new business ideas and converting them into creating ventures, which result in bringing new employment opportunities and increasing competitiveness (Turker and Selcuk, 2009). Naturally, facilitating entrepreneurship has

become one of the highest priorities in public policy (Luthje and Franke, 2003). Government strategy in many countries seeks to promote self-employment as a viable career option and a scheme releasing the increasing pressure of unemployment rate of young people (Nabi and Holden, 2008). Regrettably, this Government strategy is not likely to succeed without highly educated and creative people who armed with an entrepreneurial mind-set (Yendall, 2001). As entrepreneurship takes place only when individuals have

---

\* The present research was conducted by the research fund of Dankook University in 2016.

The Author acknowledge, with gratitude, the valuable comments and suggestions made by two anonymous reviewers.

\*\* Assistant Professor, Global Entrepreneur and Start-up Center, Dankook University (e-mail: stvyang@dankook.ac.kr)

an aspiration and self-efficacy to overcome the difficulties in the process of a new venture creation (Pihie, Bagheri and Sani, 2012), one of the main interests of scholars and policy makers has been verifying factors that influence individuals to choose entrepreneurial career path and ready to challenge the start-up process. Simultaneously, a lot of studies have focused on the entrepreneurial qualities which have long-term effects on one's behaviour and action. A meaningful implication of these studies indicates that the qualities can be acquired and improved by education and training (Kundu and Rani, 2008; Bryant, 2006; Krueger, Reilly and Carsrud, 2000; Chen, Green and Crick, 1998; Ajzen, 1991). Because of this reason, entrepreneurship education in higher education has been spotlighted as an effective training tool for students to choose an entrepreneurial career (Nabi and Holden, 2008).

Self-efficacy, defined as an individual judgement on how well an individual can implement courses of actions required to produce an outcome (Bandura, 1982). This definition stresses a core aspect of the self-efficacy construct. It points out the distinction between components skills and the capability to organize and execute courses of action. This argument outlined that people tend to select the situations in which they expect high personal control but avoid the reverse situation.

Launching a new business is strongly associated with intentional and purposive choice (Bird, 1988). Based on the theories built by earlier researchers like Shapero (1982) and Ajzen (1991), Krueger et al. (2000) asserted that intention is directly associated with perceived feasibility and desirability. Noel (2002) posited that entrepreneurial intention was stronger among students with entrepreneurship majors. His study supported the finding of Charney and Libecap (2000) in which entrepreneurship majors have high intentions to start a business within two to five years. Krueger et al. (2000) also argued that intentions predict entrepreneurship better than personality traits and situational factors. Ac-

ordingly, strong drives for educating entrepreneurship have been in place towards encouraging more students to pursue start-up instead of paid-employment (Nabi and Holden, 2008).

Amid rapid-growth of economic interdependence between Korea and China over the past decade, GEM 2013 Global Report (Amorós and Bosma, 2013) presents the distinctions in entrepreneurial activities of the two countries. For example, China was ahead of Korea almost two folds in all three following sections (China vs. Korea); 1) Nascent entrepreneurship rate (5.2 : 2.7), 2) New business ownership rate (8.9 : 4.2), 3) Total early-stage entrepreneurial activity (TEA) (14 : 6.9). This trend did not make any significant changes over 2012 and 2013. The report indicates the meaningful gap exists clearly in the entrepreneurial activities between the two countries, namely, Chinese people tend to be much more engaged in entrepreneurial activities than Korean people do.

Increasing attention to entrepreneurship in global context, a few researches have been empirically tested the effect of the key variables such as entrepreneurship education, self-efficacy on entrepreneurial intention at the cross-national context level. Also, there is lack of cross-cultural studies specially addressed the distinction between Korean and Chinese university students in entrepreneurial activities. In particular, these young people are facing with globalization than ever, and supposedly, many of them are willing to become entrepreneurs on the same global stage in the future. Also, studies conducted for eastern cultures are relatively rare, because most entrepreneurial research has been focused on western world (Jiang and Wang, 2014). Therefore examining the key variables affecting entrepreneurial activities in eastern setting is relevant to both national and cross-cultural research.

The aim of this study is to close these research gaps through a cross-cultural study with samples from Korean and Chinese university students. Thus, this empirical study

may contribute to enhance theoretical framework in entrepreneurship as well as provide the practical implication for fostering entrepreneurship of university students. Capturing an insight of how entrepreneurial activities occur differently between Korean and Chinese students is another goal of the study.

## *II. Literature Review*

### **2.1 Entrepreneurship Education**

It has been widely agreed that entrepreneurship can be taught and learned in the literature (Kuratko, 2009; Solomon, Duffy and Tarabishy, 2002; Katz, 2003). More importantly, entrepreneurship education is practically relevant because it fosters entrepreneurship which bring economic prosperity into our society and contribution of economic growth (Alberti, Sciascia and Poli, 2004; Gerba, 2012). Because of this reason, entrepreneurship education has been getting spotlighted from policy makers and higher education institutions across the globe. Regardless of developed and underdeveloped countries, entrepreneurship education has recently ranked as the top priority on the political agenda of government policy in many countries.

Entrepreneurship education is defined as the structured formal vehicle of entrepreneurial competencies such as the concepts, skills, and mental awareness which people use during the start-up process (Alberti et al., 2004). Fiet (2001) outlined entrepreneurship education as an educational program to prepare students with the knowledge, skills and motivation. This program is intended to promote entrepreneurial intention by stimulating the interest for being an entrepreneur. Thus, entrepreneurship education can be viewed as highly intentional program for not only promoting entrepreneurship but also training necessary skill-sets for potential entrepreneurs.

Pertaining to the role of entrepreneurship education and its' impact on our society, many prior studies suggest that it matters.

Noel (2002) suggested that entrepreneurial education can affect entrepreneurial activity positively. The study of Matlay and Westhead (2005) outlined entrepreneurship education could be the most effective way to facilitate the change of students' mind-set in higher education. Furthermore, the role of entrepreneurship education is to induce the change by raising both entrepreneurial self-efficacy and risk taking tendency. This result was supported by Segal, Borgia and Schoenfeld (2005) in which they claimed promotion of entrepreneurship in higher education is more likely to proliferate entrepreneurial self-efficacy, self-employment, and risk taking tendency. Charney and Libecap (2000) also argued that entrepreneurship major students are three times higher in the likelihood of creating new business than other graduates.

Meanwhile, Shariff, Hasan, Mohamad and Jusoff (2010) delineated that the contents of entrepreneurial course focused more of active teaching and learning concepts displays greater correlations with entrepreneurial intention and interest than those focused more conventional method such as lectures and examinations. This argument supports that active entrepreneurship education fundamentally can entice greater entrepreneurial intention of students in higher education. In this regards, Turker and Selcuk (2009) suggested that universities should encourage students to develop creative ideas, while providing courses for entrepreneurial knowledge and necessary skill-sets. This suggestion is based on the study if a university provides adequate knowledge and inspiration for entrepreneurship, the possibility of choice for entrepreneurial career could increase. Thus, entrepreneurship education is vital for the promotion of entrepreneurial intention of students, and it has an impact on the propensity of start-up (Ferreira, Raposo, Rodrigues, Dinis and Paço, 2012).

Entrepreneurship education can contribute increasing the knowledge of business management as well as promoting the psychological attributes associated with entrepreneur. This view of entrepreneurship edu-

cation is focusing on the increasing perceived feasibility and desirability as well as the concept of entrepreneurship and the development of the venture after start-up (Liñán, Rodríguez-Cohard and Rueda-Cantuche, 2011). Thus, the role of entrepreneurship education becomes more critical in proliferating entrepreneurial activities among young people world-wide.

## 2.2 Self-Efficacy

Self-efficacy has been accepted as a key variable in the entrepreneurship literature. Bandura (1982) defined self-efficacy as individuals' beliefs on their capability to mobilise cognitive resources and courses of actions needed to perform a specific task successfully within a given context. In other words, self-efficacy is the cognitive belief of individual's capabilities to mobilize resources, activity and motivation which is required to control the events in his or her life. Self-efficacy is also regarded as a subjective judgment with respect to the novelty and the value of an outcome stemmed from a specific action (Ford, 1996).

An essential effect of self-efficacy is related to one's own preference for certain behavior. People tend to create an overall sense of efficacy and competence that enable them to gain control and mastery over task-related behaviors (Stucliffé and Vogus, 2003). This typical perspective has been originated with Bandura (1977) who noted that individual with high self-efficacy for a specific task is more likely to pursue and persists in that task than the individual with low self efficacy belief. Likewise, people is prone to choose situations in which they anticipate high personal control and avoid situations in which they anticipate low personal control. Because of this reason, people decide and choose the career paths according to their perceptions on their capabilities. Thus, people with high self-efficacy beliefs set higher career goals, put in more effort, and pursue career strategies that lead to achieving those goals. Chen et al. (1998) proposed the appraisal of personal

capability influences individuals to prepare for and take certain occupations in which they feel competent but avoid occupations in which they feel inefficacious.

Boyd and Vozikis (1994) suggested self-efficacy as a crucial antecedent variable in developing process of entrepreneurial intentions. Including environmental factors with many individual factors, Chen et al. (1998) also stressed that self-efficacy is an important antecedent for intention because self-efficacy of the entrepreneur affects his or her career choice and development. Markman, Balkin and Baron (2002) noted that self-efficacy appears to be one of the characteristics strongly linked to entrepreneurial pursuits and new venture growth. This notion supports the GEM 2013 global report which depicted individuals in the Sub-Saharan African economies who often see good opportunities to start a business in the region appear to have a high confidence in their own skills and knowledge required to start a business. Thus, it is arguable that self-efficacy plays as a core part of entrepreneurial process that lead people taking an action.

### *Moderating role of self-efficacy*

Boyd and Vozikis (1994) proposed that entrepreneurial self-efficacy may moderate the relationship between antecedents and entrepreneurial behaviour. Based on the proposal, many empirical studies have presented positive moderating role of self-efficacy. An empirical study of Tang (2008) showed self-efficacy has a strong relationship between environmental munificence and alertness, when entrepreneur owned high level of self-efficacy in exercising the tasks of creating a new business. Specifically, entrepreneurs with strong self-efficacy were more likely to recognize market imbalance that enables them to seize new opportunities. Hmieleski and Corbett (2008) outlined that entrepreneurial self-efficacy had a positive moderating role in the relationship between an improvisational behavior of entrepreneur and performance. This study implies that the lack

of entrepreneur's confidence in his or her abilities was likely to oppress their attempts to improvise. Similarly, a study of Ballout (2009) empirically examined the moderating role noted that self-efficacy facilitates the career commitment for career success. That is, self-efficacy as a moderator has the positive effects of career commitment on both objective and subjective career success. From the discussion, it is notable that self-efficacy has a moderating role in the relationship between the antecedents and entrepreneurial behavior.

### 2.3 Entrepreneurial Intention

Intention is regarded as the best predictor of behavior (Fishbein and Ajzen, 1975). Ajzen (1991) argued that there is a strong relationship between intentions toward behavior and actual act. Entrepreneurial intention refers to a state of mind that individual wishes to create a new firm or pursue a new value within existing organizations (Wu and Wu, 2008). Conclusively, intention serves as a driving force of the entrepreneurial activity. Starting one's own business or launching a new venture is generally defined as an intentional and purposive activity. Thus entrepreneurial intention would be a useful variable to predict of individual's action toward start-up.

In earlier days, Boyd and Vozikis (1994) delineated that self-efficacy is a critical antecedent variable in the development of entrepreneurial intentions, among other variables. Self-efficacy judgments affect behavior and goal accomplishment, and exert the power of entrepreneurial intentions, which will, in turn, convert into actions (McGee, Peterson, Mueller and Sequeira, 2009). Accordingly, entrepreneurial intentions are essential to understand the entrepreneurial process as they precede the attempt in entrepreneurial activity (Bird, 1988; Katz and Gartner, 1988; Krueger et al., 2000).

Recently, entrepreneurial intentions of university students have received remarkable attentions from researchers (Autio, Keeley, Klofsten, Parker and Hay, 2001; Veciana,

Aponte and Urbano, 2005). Prior studies emphasize that entrepreneur can be cultivated during individual's lifetime, and education is playing an important role in building entrepreneurship in the mind of individual person (Lee, Lim, Pathak, Chang and Li, 2006). A study of Franke and Luthje (2004) tested the effect of university environment on entrepreneurial intention of students. The result revealed that students had a low entrepreneurial intention because of their perceptions on the deficiency of universities' supports in terms of providing relevant entrepreneurship courses. Solesvik (2013) claimed that individual's motivation influenced by entrepreneurship education may transform a latent intention into real action.

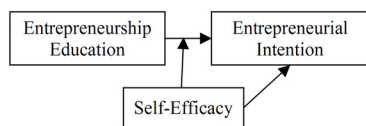
Meanwhile, macro view explains that the level of entrepreneurial intention reflects economic potential and economic environment of a country. For example, GEM 2013 global report pointed out when a crisis is foreseeable, some people who intended to start a new business may delay entrepreneurial activities because the demand is expected to decline. However, others may actually seize new opportunities emerging from the crisis. Also, even though another group of people may not be driven by opportunity at all, they may be pushed into entrepreneurial activities as a result of the jobless problems, when social security entitlements are low in particular. The context can therefore affects entrepreneurship rates both positively and negatively.

## III. *Research Model and Hypothesis*

### 3.1 Research Model

The purpose of this study is to test the effects of entrepreneurship education and self-efficacy on entrepreneurial intention using samples of Korean and Chinese university students. Another aim of this research explores the moderating effect of self-efficacy in the relationship between entrepreneurship education and entrepreneurial intention.

**Figure 1**  
**Research Model**



This study proposes a simple theoretical framework which tests the validity and applicability of the theory based on the hypotheses developed hereunder with the samples of respective country. Ahlin et al. (2014) and Bstieler (2005) suggested that separate analysis of the disaggregated data for each country provides additional insights in cross-cultural study. Figure 1 displays the research model of this study.

### 3.2 Hypothesis Development

#### 3.2.1 Entrepreneurship Education and Entrepreneurial Intention

Entrepreneurial attributes can be positively influenced by educational programs (Athayde, 2009), and entrepreneurship programs and courses help people build awareness of entrepreneurship as a career path option and to promote favorable attitudes toward entrepreneurship (Anderson and Jack, 2008). Fiet (2001) suggested entrepreneurship education as an educational program prepares students with the knowledge, skills and motivation. Similarly, Turker and Selcuk (2009) noted that universities should encourage students to develop creative ideas, and provide courses for entrepreneurial knowledge and necessary skill-sets, that can foster entrepreneurship of students. Shariff et al. (2010) argued that entrepreneurial course has greater correlations with entrepreneurial intention of students. This argument implies that entrepreneurial education with full contents could entice more entrepreneurial intention of students in higher education. Ferreira et al. (2012) pointed out that entrepreneurship education is vital in order to promote entrepreneurial intention of students, and education plays the most important role in the propensity of creating new business among

students.

In accordance with the previous works, this study replicates and tests the relationship between entrepreneurship education and entrepreneurial intention of Korean and Chinese university students. By doing so, we argue that the entrepreneurship literature can gain from testing previous theory in eastern Asian setting. Thus, it is hypothesized:

*H1: Entrepreneurship education will be positively related to entrepreneurial intention of university students.*

*H1a: Entrepreneurship education will be positively related to entrepreneurial intention of Korean university students.*

*H1b: Entrepreneurship education will be positively related to entrepreneurial intention of Chinese university students.*

#### 3.2.2 Self-Efficacy and Entrepreneurial Intention

The relationship of self-efficacy and entrepreneurship is known to be best demonstrated in risky and uncertain situations, such as career choice (Chen et al., 1998). Self-efficacy is one of the characteristics strongly linked to entrepreneurial pursuits and new venture growth (Markman et al., 2002). Among environmental and individual factors, self-efficacy was proposed as an important antecedent variable in the developing process of entrepreneurial intentions (Boyd and Vozikis, 1994). Kristiansen and Indarti (2004) noted that the intention to become an entrepreneur can be explained by self efficacy.

Drawing from previous literature suggesting that self-efficacy plays as one of the main factors influencing entrepreneurial intention, it can be inferred that there could be strong relationship between self-efficacy and entrepreneurial intention. Thus, the following hypotheses are proposed:

*H2: Self-efficacy will be positively re-lated to entrepreneurial intention of university students.*

*H2a: Self-efficacy will be positively re-lated to entrepreneurial intention of Korean university students.*

*H2b: Self-efficacy will be positively re-lated to entrepreneurial intention of Chinese university students.*

As the positive impact of self-efficacy on entrepreneurial intention becomes more pronounced over time, university students will develop greater commitments to start new business goals, and put more effort and persist longer to attain such goals. Ballout (2009) noted that self-efficacy plays a role in facilitating the effects of career commitment on career success. His study also indicated that self-efficacy has positive moderating effects in the relationship between career commitment and both objective and subjective career success. Ahlin, Drnovšek and Hisrich (2014) also argued that there is strong evidences supporting the moderating effects of self-efficacy in investigating the impact of individual-level variables on different types of outcomes. Based on the discussions, we argue that self-efficacy has a moderating role in between entrepreneurship education and entrepreneurial intention. Thus, it is hypothesized:

*H3: Self-efficacy will moderate the relationship between entrepreneurial education and entrepreneurial intention of university students such that the relationship will be stronger at higher than at lower levels of self-efficacy.*

*H3a: Self-efficacy will moderate the relationship between entrepreneurial education and entrepreneurial intention of Korean university students such that the relationship will be stronger at higher than at lower levels of self-efficacy.*

*H3b: Self-efficacy will moderate the relationship between entrepreneurial education and entrepreneurial intention*

*of Chinese university students such that the relationship will be stronger at higher than at lower levels of self-efficacy.*

## **IV. Method**

### **4.1 Sample and Procedure**

Data for this study were collected by means of questionnaire consisting of 21 items including demographic variable during May 01, 2014~August 31, 2014. Korean sample was obtained from 4 universities where entrepreneurial courses provided: Baeseok, Dankook, Soongsil and Wonkwang university. All participants from these universities have already taken one or two entrepreneurial courses or now in the mid of the courses. For Chinese sample, Guangzhou university students were joined this research in volunteer among those who take entrepreneurial courses, too. Guangzhou in China is known as symbolic city of reform and open policy by Chinese Government since back in 1978. Thus, both students from the two countries are likely to be the adequate sample for this study.

The research questionnaire was developed elaborately on the basis of the previous studies. The questionnaire items were all pre-tested for the familiarity of wording, clearness and unambiguity. The Chinese version of the questionnaire was arranged in accordance with the back-translation procedure recommended by Brislin, Lonner and Thorndike (1973). Korean questionnaire was translated into Chinese first by a Chinese professor who earned Doctorial degree at a Korean university and teaches entrepreneurship at Guangzhou university currently, and then another two Korean-Chinese students in Korea on Doctorial courses in the same area translated back Chinese version into Korean. The questionnaires were distributed to all the students at the start of the class by the professors who offers entrepreneurial courses. The self-administered questionnaires for the study were administered to

students at each university in both two countries with an attached cover letter that stated the purpose of the research. Before the respondents fill in the anonymous questionnaire, each professor introduced again the purpose of the study clearly and asked them to answer in accord with their own free will with a remark the confidentiality assured. After the class, we received each 276 and 269 completed questionnaires back from Korea and China. After omitting 8 and 10 incomplete surveys respectively from both countries, the final dataset was completed with 268 and 259 samples from each countries (yielding response rate = 97% in Korea, 96% in China).

The participating rate of male students were much higher (69.8%) than that of female students (30.2%) in Korea, while China showed somewhat balanced participating rate between male students (56%) and female students (44%). Approximately 76% of Korean students were in junior and senior year, while junior year students occupied almost 63% in Chinese sample. Senior year Chinese students were not available for a public event during the survey period. Each 97% and 88% of Korean and Chinese stu-

dents are in social science and engineering majors. Table 1 exhibits the demographic characteristics of each country.

In order to verify cognitive homogeneity of the instruments by the respondents whose cultural background are different, t-test was conducted for the two groups. No significant discrepancy detected out of the result (t-value of each variable; entrepreneurship education = 1.406, self-efficacy = 1.283, entrepreneurial intention = -0.784, (( $p < 0.1$ )).

## 4.2 Measure

The questionnaire is divided into four subsections including: 1) demographic information (gender, age, year and major), 2) entrepreneurship education (entrepreneurial desire, intention, passion etc.), 3) self-efficacy (in personal belief on capability of implementing entrepreneurial activities), 4) entrepreneurial intention (entrepreneurial effort, interests in start-up process, having an objective of being an entrepreneur). Unless stated otherwise, participants responded to all questionnaire items for measures using a 5 point Likert scale ranging from 1 (denoting strongly disagree) to 5 (strongly agree). Responses on items for each measure were

**Table 1**  
**Sample Characteristics**

		Korea ( <i>n</i> = 268)		China ( <i>n</i> = 259)	
		Frequency	Weight(%)	Frequency	Weight(%)
Gender	Male	187	69.8	145	56.0
	Female	81	30.2	114	44.0
University	Baekseok	55	20.5	Guangzhou 259	100
	Dankook	79	29.5		
	Soongsil	56	20.9		
	Wonkwang	78	29.1		
Age	19~20	34	12.7	95	36.7
	21~22	87	32.5	129	49.8
	23~24	85	31.7	32	12.4
	Beyond 25	62	23.1	3	1.2
Year	Freshmen	9	3.4	75	29.0
	Sophomore	55	20.5	21	8.1
	Junior	92	34.3	163	62.9
	Senior	112	41.8	0	25.9
Major	Social Science	201	75.0	161	62.2
	Engineering	59	22.0	67	25.9
	Art & Physical Edu.	8	3.0	31	12.0



averaged to form an overall score such that higher scores indicated a higher standing on the measure. All the measuring instruments have been shown to have strong construct validity and reliability in previous studies.

#### 4.2.1 Entrepreneurship Education

Entrepreneurship education (EE) refers to every sort of educations to promote entrepreneurial desire, passion, motivation and intention. It was assessed by using the modified scale of Turker and Selcuk (2009) and Liñán et al. (2011)'s measure. Some example items are; "Entrepreneurship education gives me a preference to be an entrepreneur." "Entrepreneurship education improves the necessary ability to be an entrepreneur." "Entrepreneurship education encourages me to develop creative ideas for being an entrepreneur."

#### 4.2.2 Self-Efficacy

Self-efficacy (SE) indicates individual's belief about his/her ability to perform a given task, means to execute entrepreneurial activities herein. This variable was measured using an instrument developed by Chen et al. (1998) and Tang (2008), after paraphrasing properly. The items include "I can work under pressure and conflict." "I am able to control the creation process of a new ven-

ture." "If I tried to start a business, I would have a high chance of being a successful."

#### 4.2.3 Entrepreneurial Intention

Entrepreneurial intention (EI) refers to a state of mind that individual wishes to start a new business including a new venture. Entrepreneurial intention was measured using scales developed by Liñán and Chen (2009), Solesvik (2013) including the items such as "I am thinking about creating new firm very seriously." "I decided to start my own business in the future." "My professional goal is to be an entrepreneur."

#### 4.2.4 Control Variables

To eliminate third variable effects, following 4 control variables specifically were included; gender, age, year and major. Gender was assessed as a dichotomous variable (coded 0 = male, 1 = female). Students age was measured by dividing the group into four that has age range of two-year interval starting from 19~20 to beyond 25. Year was assessed by the year of each participants belongs to from freshmen to senior. Finally, major was measured by three groups; Social science, Engineering and Art & Physical education (coded 0 = Social science, 1 = Engineering, 2 = Art & Physical education). Since demographic statistics such as the age and

**Table 2**  
**Factor Loadings with Eigen Value and Cronbach's Alpha**

Korea						China					
Item	EE	SE	EI	Eigen value	Cronbach's $\alpha$	Item	EE	SE	EI	Eigen value	Cronbach's $\alpha$
EE1	.774					EE5	.742				
EE2	.764					EE2	.736				
EE4	.673			3.190	.813	EE4	.709			4.188	.796
EE5	.626					EE1	.705				
EE3	.595					EE3	.652				
SE1		.778				SE5		.813			
SE3		.765				SE4		.781			
SE4		.765		4.687	.860	SE1		.768		4.893	.873
SE5		.763				SE3		.735			
SE2		.751				SE2		.731			
EI1			.841			EI5			.796		
EI4			.825			EI3			.793		
EI5			.819	5.681	.917	EI4			.775	4.704	.868
EI3			.810			EI2			.728		
EI2			.792			EI1			.651		

EE stands for Entrepreneurship Education, SE for Self-Efficacy, and EM for Entrepreneurial Motivation.

education are indices to entrepreneurial behavior (Brockhaus and Horwitz, 1986), the above variables are regarded as adequate control variables in this research.

## V. Analysis

### 5.1 Analysis

#### 5.1.1 Data Analysis

The analysis for the data was accomplished by using SPSS version PASW Statistic 18. Before testing the hypotheses, 15 items of three major variables in the questionnaire were assessed for both content and construct validity. A simultaneous multi-group exploratory factor analysis (EFA) was applied to all multi-item scales in the model using principal components analysis with varimax rotation method to determine the dimensions. In cross-national data, all scale items should be loaded on the same factor (Singh, 1995). The results were satisfied with the criteria. The EFA resulted in three factors with Eigen values greater than 1.0. for both Korean and Chinese data. These factors explain 56.49% and 57.43% of the total variance for Korea and China respectively. Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was 0.915 (Korea) and 0.922 (China) that both met qualitative evaluation, as the values are higher than 0.7 which is acceptable as minimum value (Hair, Wolfinger, and Bush, 2008). The result of Bartlett's test of Sphericity displayed the both data as adequate for analysis (Korea: 3831.434,  $p < 0.000$ , China: 3272.725,  $p < 0.001$ ). Cronbach's alpha coefficient was applied to verify the reliability of the measuring tool that directs the internal consistency of the instrument. The reliability coefficients of the three variables (EE, SE and EI) of both Korean and Chinese data are all exceeded the commonly used criterion of 0.70 (Nunnally and Bernstein, 1994). Thus, it is judged that all the variables had secured internal consistency and could be treated as distinct variables. Table 2 presents the results of exploratory factor analysis (EFA) of both Korea and China. Table 3

displays the descriptive statistics for means, standard deviations, and inter-correlations of the study variables. On the average, Korean and Chinese respondents reported each a level of EE of 3.75 and 3.63, a level of SE of 3.60 and 3.30, and a level of EI of 2.84 and 3.12 (measured on a five-point scale). Table 3 shows both inter-correlation analysis result of Korea and China; SE and EI were significantly correlated with EE in Korea. In particular, EE and EI was highly correlated each other ( $r = .48$ ,  $P < 0.001$ ). In contrast to this result, China shows very low correlation between these two variables ( $r = .23$ ,  $p < 0.001$ ). Both Korean and Chinese SE and EI were correlated high (Korea:  $r = .36$ ; China:  $r = .47$ ,  $p < 0.001$ ).

#### 5.1.2 Test Results

The study applied moderated hierarchical multiple regression to test the hypotheses, entering the control variables first, the main effect variables second, and the interaction variables last. The interaction variable was created by transforming the raw scores of the predictor and moderator variables into deviation scores with means equal to zero, using mean-centering method. Such term transformation was aimed at removing the potential problem of multicollinearity with the interaction variables due to scaling as well as increasing the interpretability of the interaction term (Aiken and West, 1991; Cohen, Cohen, West and Aiken, 2003). To ensure avoiding multicollinearity problems, the correlation coefficients above the 0.80 level were all checked (Hair, Black, Babin and Anderson, 2010), and then variance inflation factor (VIF) analysis was conducted. As presented on Table 3, there was no correlation coefficients higher than 0.80 among the variables in both Korea and China. The VIF values for the theoretical variables were placed in the range from 1.013 to 1.762 (Korea), and from 1.073 to 2.242 (China), which are all far below the cut-off value of 10 (Belsley, 1991). It is also found that the values of tolerance of Korea and China fell in the range of 0.568 -0.987, and 0.446

**Table 3**  
**Descriptive Statistics/Inter-Correlation Matrix**

	Variable	Mean	SD	# of Item	EE	SE	EI
Korea	EE	3.765	.622	5	1		
	SE	3.606	.670	5	.322***	1	
	EI	2.848	.964	5	.481***	.361***	1
China	EE	3.631	.660	5	1		
	SE	3.301	.653	5	.321***	1	
	EI	3.125	.779	5	.239***	.473***	1

\*\*\*p < 0.001.

**Table 4**  
**Result from the Moderated Hierarchical Regression on EI (Korea)**

	Model 1		Model 2		Model 3		Multicollinearity	
	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.	Tolerance	VIF
<i>Control Variable</i>								
Year	-.024	.082	-.047	.072	-.042	.071	.652	1.535
Age	.086	.072	.044	.063	.052	.062	.568	1.762
Gender	-.208**	.141	-.081	.129	-.088	.127	.709	1.410
Major	.072	.113	.085	.098	.081	.096	.987	1.013
<i>Main Effect</i>								
EE			.399***	.086	.425***	.085	.864	1.157
SE			.200***	.083	.189***	.081	.810	1.235
<i>Interaction Effect</i>								
EE x SE					.175***	.101	.971	1.030
R <sup>2</sup>	.071		.298		.328			
Adjusted R <sup>2</sup>	.057		.282		.310			
$\Delta R^2$			.227		.030			
F vlaue	5.032***		18.497***		18.137***			

\*p < 0.1, \*\*p < 0.05, \*\*\*p < 0.001.

**Table 5**  
**Result from the Moderated Hierarchical Regression on EI (China)**

	Model 1		Model 2		Model 3		Multicollinearity	
	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.	Tolerance	VIF
<i>Control Variable</i>								
Year	-.103	.079	-.070	.070	-.079	.070	.446	2.242
Age	.075	.101	.087	.089	.093	.089	.452	2.211
Gender	-.191***	.096	-.132	.087	-.119	.087	.932	1.073
Major	.105	.072	.110	.064	.106	.064	.888	1.126
<i>Main Effect</i>								
EE			.120*	.069	.131*	.069	.853	1.173
SE			.413***	.070	.443***	.072	.797	1.126
<i>Interaction Effect</i>								
EE x SE					.106	.065	.875	1.143
R <sup>2</sup>	.050		.261		.271			
Adjusted R <sup>2</sup>	.035		.244		.251			
$\Delta R^2$			.211		.010			
F vlaue	3.315***		14.849***		13.335***			

\*p < 0.1, \*\*p < 0.05, \*\*\*p < 0.001.

-0.932 each, all of which are much higher than 0.10 (Hair et al., 2010). After ensuring no significant problems detected from the data, moderated hierarchical multiple regression were entered for the analysis.

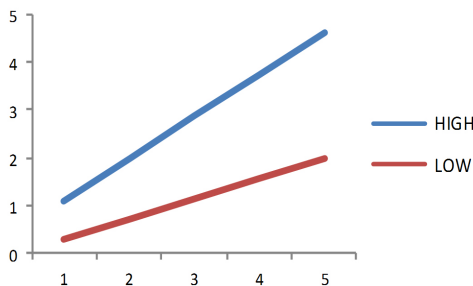
In the first step, year, age, gender and major were entered, and then EE and SE were entered in second step, and finally, the interaction term of the EE and SE was entered in the 3rd step. Two multiple regression models were conducted per country. Table 6a and 6b show the moderated hierarchical regression results for Korean and Chinese samples.

Model 1 used as a base-line model which only includes the control variables and dependent variable. The result reveals that year, age and major have no significant effect on EI, but gender. This finding implies that gender would be a key factor that may work significantly in entrepreneurial activities among university students in both countries. H1 predicted that EE would be positively related to EI, and H2 predicted that SE would be positively related to EI of university students. With the control variables taken into consideration, multiple regression for main effects model resulted in yielding a significant and positive regression for EE on EI ( $\beta = 0.425, p < 0.001$  (Korea),  $\beta = 0.131, p < 0.05$  (China)), and for SE on EI ( $\beta = 0.189, p < 0.001$  (Korea),  $\beta = 0.443, p < 0.001$  (China)). This result suggests strong support for the two hypotheses of the two countries. Thus, both EE and SE were found

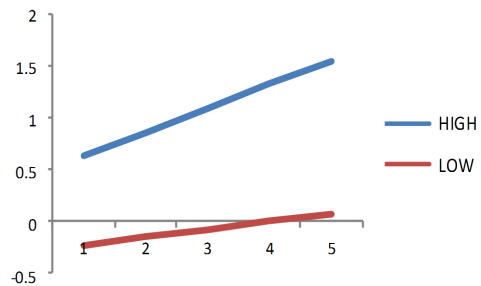
to be positive antecedents of EI. Model 2 for each country contributed an increase in the explanation of variance, above the baseline model for both EE and SE on EI ( $\Delta R^2 = 0.227$  (Korea),  $0.211$  (China)), but gender was no longer significant statistically in both groups. Thus, H1a and H1b as well as H2a and H2b are all supported. H3 stated that SE would moderate the relationship between EE and EI which is the key interest of this study as discussed on the research model. In accordance with the notion of Ballout (2009) and Ahlin et al. (2014) for the significant role of SE as moderator, the hypothetical background was that EE should give higher impact on EI, as SE became stronger. Model 3 included the interaction variable, EE x SE, to test the moderating effect of self-efficacy. Incorporating this variable improved the coefficients'  $R^2$  and increased the model's total variance to 0.328 ( $\Delta R^2 = 0.030$ , Korea), and 0.271 ( $\Delta R^2 = 0.010$ , China) for the dimensions of EE. Whereas, Model 3 for Chinese sample appeared insignificantly ( $\beta = 0.106, p = 0.066$ ) at the level of  $p < 0.05$  of which the result suggests that SE had no moderating effect on EE and EI. In contrast, SE had a significant moderating impact on the relation between EE and EI in the Korean sample ( $\beta = 0.175, p < 0.001$ ). Again gender was not significant in both groups, either. Therefore, H3a is supported but H3b is rejected.

In addition, simple slope analyses were conducted to appraise high (one standard

**Figure 2a**  
Relations between EE and EI at High and Low Levels of SE (Korea)



**Figure 2b**  
Relations between EE and EI at High and Low Levels of SE (China)



deviation above the mean) and low (one standard deviation below the mean) levels of the moderator (Aiken and West, 1991).

The plots of the interaction terms for both samples are shown in Figure 2a for Korea and Figure 2b for China. As indicated in Figure 2a, the relationship between EE and EI of Korean sample becomes more drastically positive with higher levels of SE than with lower levels while Chinese sample shows very little effect as shown on Figure 2b.

## *VI. Conclusion*

### **6.1 Discussion**

Entrepreneurship has been recognized as a key element in accelerating economic development. The recognition has ignited the importance of entrepreneurship education in higher educational institutions across borders. This empirical research replicated and tested the effect of the key variables around entrepreneurship education, self-efficacy, and entrepreneurial intention as a cross-national study to observe the distinction between Korean and Chinese university students in entrepreneurial activities. Another aim of this study is to examine moderating effect of self-efficacy to see how it interacts with an entrepreneurship education in promoting entrepreneurial intention. The moderating role of self-efficacy was examined as suggested by previous entrepreneurship study (Baron and Kenny, 1986; Hmieleski and Corbett, 2008; Ballout, 2009; Ahlin et al., 2014).

The analysis result revealed that entrepreneurship education and self-efficacy affect entrepreneurial intention positively in both countries, as expected. The finding of this study is in line with the suggestion of Ferreira et al. (2012) in that entrepreneurship education is important in promoting entrepreneurial intention of students, and education plays the most critical role in the tendency of creating new business among students. This finding also supports Boyd

and Vozikis (1994) who proposed that self-efficacy would be an important antecedent variable in the process of developing entrepreneurial intentions.

Meanwhile, self-efficacy has a positive moderating role in entrepreneurial intention by interacting with entrepreneurship education in Korean sample, whereas this variable does not play as an effective moderator in Chinese sample (at the level of  $p < 0.05$ ). This finding indicates that self-efficacy of Chinese students has little moderating role which is unlike Korean students. This result can be interpreted that the role of self-efficacy in Chinese students is not as much powerful nor important for promoting entrepreneurial intention as it is in Korean students. It can be also inferred that self-efficacy of Chinese students under entrepreneurship education context does not matter much to their entrepreneurial activities, compare to Korean students. Although the examined model based on the secured data in this study does not provide enough grounds to extract the conclusions pertaining to the reasons behind this variation, several initial thoughts can be presented to reach to this difference identified. First, different entrepreneurial cultures could be involved in this country-related difference. As long as entrepreneurial culture is concerned, Chinese people is known to have a long and strong entrepreneurial tradition. Weidenbaum and Hughes (1996) noted that Chinese people is stronger in entrepreneurial orientation than any other ethnic groups in the world. Most Chinese business founders who started small family businesses typically possessed little money but they have grown into huge conglomerates. Second, it could be related to different levels of entrepreneurial tendencies and activities between the two countries. In this regards, GEM 2013 Global Report highlighted the distinction in entrepreneurial activities between the two countries; China was ahead of Korea almost two times in nascent entrepreneurship rate, new business ownership rate, total early-stage entrepreneurial activity (TEA).

The theoretical contributions of this study derive from conceptualizing and testing entrepreneurial process empirically by employing key variables with samples of university students. Also, this cross-cultural study contributes to entrepreneurship literature by presenting a distinction between Korean and Chinese university students on moderating role of self-efficacy. Finally, this study contributed to the literature by providing the identical result of the role of key entrepreneurial variables in eastern setting as the findings in the western world, which is staying in line with the argument of Jiang and Wang (2014).

## 6.2 Implication

Several implications can be presented from this study for public policy makers and school authorities. Entrepreneurship is a personal and intentional mind-set that can be taught and nurtured by education (Solomon et al., 2002; Katz, 2003; Kuratko, 2009). The first suggestion is the importance of education. Entrepreneurial intention is closely related to the elements that drive university students into choosing entrepreneurial career path. And this entrepreneurial intention of university students can be promoted and nurtured by education. In addition, the role of entrepreneurship education is known as a key element promoting entrepreneurial self-efficacy and risk taking tendency of students which will lead to dynamic entrepreneurial activities among university students (Segal et al., 2005). Second is the importance of self-efficacy role. This study shows that self-efficacy can enhance entrepreneurial intention of university students. Comparing to Chinese students, entrepreneurial intention of Korean university students are much likely influenced by the interaction of entrepreneurship education and self-efficacy. Therefore, strengthening entrepreneurship education can be effective tool in increasing self-efficacy of Korean students, and it subsequently enhance their entrepreneurial intention. Finally, this study empha-

sizes that developing effective pedagogy in higher education has to be one relevant task for school authorities for diffusing entrepreneurship and fostering self-efficacy among university students.

## 6.3 Limitation

This study contains a couple of limitations. First, it is concerned with the methodology on analysing data from two countries. Instead of examining the differences of two groups directly, this study focused on testing the established hypotheses that were set up separately per country, and then contrasted the result to compare the differences. Future study need to develop new hypothesis to identify the possible differences between the two countries. Second, Chinese sample was collected from one university only, that eventually have an inherent limitation of generalization. Future study is recommended to diversify the samples across country. Third, findings of this study revealed distinction between Korean and Chinese sample in the interaction role of education and self-efficacy over entrepreneurial intention. Future study need to provide more meaningful explanations for context-related variations by adding key entrepreneurial variables, and reflecting the different aspects in entrepreneurial activities on GEM 2013 global report. Finally, the theoretical and empirical results in this study implied that entrepreneurship education and self-efficacy precede entrepreneurial intention. All these variables, however, could be influenced as well by other variables such as social support and individual traits. Therefore, future study need to add entrepreneurial intention-enhancing variables to capture better understanding on entrepreneurial intention context.

Received 16 Dec. 2015

Revised 19 Feb. 2016

Accepted 04 Mar. 2016

## References

- Ahlin, B., M. Drnovšek and R. D. Hisrich (2014). "Entrepreneurs' creativity and firm innovation: the moderating role of entrepreneurial self-efficacy," *Small Business Economics* 43(1), 101-117.
- Aiken, L. S. and S. G. West (1991). *Multiple regression: Testing and inter-pretting interactions*. Thousand Oaks: Sage.
- Ajzen, I. (1991). "The Theory of Planned Behavior," *Organizational behavior and human decision processes* 50(2), 179-211.
- Alberti, F., S. Sciascia, and A. Poli, (2004). "Entrepreneurship education: notes on an ongoing debate," Paper presented at 14th Annual IntEnt Conference, Naples.
- Amorós J. and N. Bosma (2013). *2013 Global Report*, Global Entrepreneurship Monitor.
- Anderson, A. and S. Jack (2008). "Role typologies for enterprising education: the professional artisan?" *Journal of Small Business and Enterprise Development* 15(2), 259-273.
- Athayde, R. (2009). "Measuring enterprise potential in young people," *Entrepreneurship Theory and Practice* 33(2), 481-500.
- Autio, E., R. Keeley, M. Klofsten, G. Parker and M. Hay (2001). "Entrepreneurial intent among students in Scandinavia and in the USA," *Enterprise and Innovation Management Studies* 2(2), 145-160.
- Ballout, H. I. (2009). "Career commitment and career success: moderating role of self-efficacy," *Career Development International* 14(7), 655-670.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs: Prentice Hall.
- Bandura, A. (1982). "Self-efficacy mechanism in human agency," *American Psychology* 37, 122-147.
- Baron, R. M. and D. A. Kenny (1986). "The Moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical consideration" *Journal of Personality and Social Psychology* 51(6), 1173-1182.
- Belsley, D. A. (1991). *Conditioning diagnostics: Collinearity and weak data in regression (1st ed.)* New York: Wiley-Interscience.
- Bird, B. (1988). "Implementing entrepreneurial ideas: The case for intention," *Academy of Management Review* 13(3), 442-453.
- Boyd, N. G. and G. S. Vozikis (1994). "The influence of self-efficacy on the development of entrepreneurial intentions and actions," *Entrepreneurship Theory and Practice* 18(4), 63-77.
- Brislin, R. W., W. J. Lonner, and R. M. Thorndike (1973). *Cross-cultural research methods*, New York: Wiley.
- Brockhaus, R. H. and P. S. Horwitz (1986). *The Psychology of the Entrepreneur*. In D. Sexton & R. Smilor (eds). The art and science of entrepreneurship. Cambridge, MA: Ballinger.
- Bryant, P. (2006). *Improving entrepreneurial education through self-regulatory skills*. The NCIIA.
- Bstieler, L. (2005). "The moderating effect of environmental uncertainty on new product development and time efficiency," *Journal of Product Innovation Management* 22(3), 267-284.
- Charney A. and G. D. Libecap, (2000). *The Impact of Entrepreneurship Education: An Evaluation of the Berger Entrepreneurship Program at the University of Arizona, 1985~1999*. Kansas City, MO: The Kauffman Center for Entrepreneurial Leadership.
- Chen, C., P. Green, and A. Crick (1998). "Does entrepreneurial self-efficacy distinguish entrepreneurs from managers?" *Journal of Business Venturing* 13, 295-316.
- Choi, Y. H. and C. S. Jung (2015). "Relationship between self-leadership, Self-efficacy and Empowerment in Nursing Students," *Journal of the Korea Academia-Industrial* 16(7), 4604-4613.
- Cohen, J., P. Cohen, S. G. West, and L. S. Aiken (2003). *Applied multiple regression/correlation analysis for the behavioral sciences (3rd ed.)* Mahaw: Lawrence Erlbaum Associates.

- Ferreira, J., M. Raposo, R. Rodrigues, A. Dinis, and A. Paço (2012). "A model of entrepreneurial intention. An application of the psychological and behavioral approaches," *Journal of Small Business and Enterprise Development* 19(3), 424-440.
- Fiet, J. O. (2001). "The theoretical side of teaching entrepreneurship," *Journal of Business Venturing* 16(1), 1-24.
- Fishbein, M. and I. Ajzen (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Addison-Wesley.
- Ford, C. M. (1996). "A theory of individual creative action in multiple social domains," *Academy of Management Review* 21(4), 1112-1142.
- Franke, N. and C. Luthje (2004). "Entrepreneurial Intentions of Business Students: A benchmarking Study," *International Journal of Innovation and Technology Management* 1(3), 269-288.
- Gerba, D. T. (2012). "The context of entrepreneurship education in Ethiopian universities," *Management Research Review* 35(3/4), 225-244.
- Hair, J. F., M. Wolfinger, D. J. Ortinau and R. P. Bush (2008). *Essentials of Marketing Research*. New York, McGraw-Hill Irwin.
- Hair, J. F., W. C. Black, B. J. Babin, and R. E. Anderson (2010). *Multivariate data analysis (7th ed.)* New Jersey: Prentice Hall.
- Hmieleski, K. M. and A. C. Corbett (2008). "The contrasting interaction effects of improvisational behavior with entrepreneurial self-efficacy on new venture performance and entrepreneur work satisfaction," *Journal of Business Venturing* 23(4), 482-496.
- Jiang, Z. and Z. Wang (2014). "Entrepreneurial Intention and Outcome Expectancy: Evidence from South Korea and China," *Contemporary Management Research* 10(3), 251-270.
- Katz, J. A. (2003). "The chronology and intellectual trajectory of American entrepreneurship education," *Journal of Business Venturing* 18(2), 283-300.
- Katz, J. A. and W. B. Gartner (1988). "Properties of emerging organizations," *Academy of Management Review* 13(3), 429-441.
- Kim, K. S. (2012). "The Influence of Career Self-Efficacy on Risk Taking Level in University Students," *Journal of the Korea Academia-Industrial Cooperation Society* 13, 1054-1060.
- Kristiansen, S. and N. Indarti (2004). "Entrepreneurial intention among Indonesian and Norwegian students," *Journal of Enterprising Culture* 12(1), 55-78.
- Krueger Jr. N. F., M. D. Reilly, and A. L. Carsrud (2000). "Competing models of entrepreneurial intentions," *Journal of Business Venturing* 15(5), 411-432.
- Kundu, S. C. and S. Rani (2008). "Human resources' entrepreneurial attitude orientation by gender and background: a study of Indian Air Force trainee," *International Journal of Management and Enterprise Development* 5(1), 77-101.
- Kuratko, D. (2009). *Introduction to Entrepreneurship*. South-Western CENGAGE Learning.
- Lavolette, E. M., M. R. Lefebvre, and O. Brunel (2012). "The impact of story based entrepreneurial role models on self-efficacy and entrepreneurial intention," *International Journal of Entrepreneurial Behaviour and Research* 18(6), 720-742.
- Lee, S. M., S. Lim, R. D. Pathak, D. Chang and W. Li (2006). "Influences on students attitudes toward entrepreneurship: a multi-country study," *The International Entrepreneurship and Management Journal* 2(3), 351-366.
- Liñán, F., J. Rodriguez-Cohard, and J. Rueda-Cantucho (2011). "Factors affecting entrepreneurial intention levels: a role for education," *International Entrepreneurship and management Journal* 7(2), 195-218.
- Liñán, F. and Y. W. Chen (2009). "Development and Cross-Cultural application of a specific instrument to measure entrepreneurial intentions," *Entrepreneurship Theory and Practice* 33(3), 593-617.



- Luthje, C. and N. Franke (2003). "The making of an entrepreneur: testing a model of entrepreneurial intention among engineering students at MIT," *R&D Management* 33(2), 135-147.
- Markman, G. D., D. B. Balkin, and R. A. Baron (2002). "Inventors and new venture formation: The effects of general self-efficacy and regretful thinking," *Entrepreneurship Theory and Practice* 27(2), 149-165.
- Matlay, H. and P. Westhead (2005). "Virtual teams and the rise of entrepreneurship in Europe," *International Small Business Journal* 12(3), 279-302.
- McGee, J. E., M. Peterson, S. L. Mueller, and J. M. Sequeira (2009). "Entrepreneurial self-efficacy: refining the measure," *Entrepreneurship Theory and Practice* 33(4), 956-988.
- Nabi, G. and R. Holden (2008). "Graduate entrepreneurship: intentions, education and training," *Education+Training* 50(7), 545-551.
- Naktiyok, A., C. N. Karabey, and A. C. Gulluce (2010). "Entrepreneurial self-efficacy and entrepreneurial intention: the Turkish case," *International Entrepreneurship Management Journal* 6, 419-435.
- Noel, T. W. (2002). "Effects of Entrepreneurial Education on Intent to open a Business: An Exploratory Study," *Journal of Entrepreneurship Education* 5, 3-13.
- Nunnally, J. C. and I. H. Bernstein (1994). *Psychometric Theory (3rd. ed.)* New York: McGraw-Hill Book Co.
- Pihie, Z. A. L., A. Bagheri, A. Haslinda, and A. Sani (2012). "Exploring Regulatory Focus, Entrepreneurial Intention, Self-Efficacy and Entrepreneurial Skills among Malaysian Higher Learning Institution Students," paper presented at ECIE2012-7th European Conference on Innovation and Entrepreneurship, Portugal.
- Rhee, J. Y., E. J. Kang, and J. H. Hahn, (2010). "The effect of Self-leadership on empowerment, self-efficacy and in novation," *Journal of the Korea Academia-Industrial* 11(11), 4273-4281.
- Segal, G., D. Borgia, and J. Schoenfeld (2005). "The motivation to become an entrepreneur," *International Journal of Entrepreneurship Behavior and Research* 11(1), 42-57.
- Shapero, A. (1982). *Social dimensions of entrepreneurship*. In *The Encyclopedia of Entrepreneurship*, C. Kent, D. Sexton and K. Vesper(Eds.). Englewood Cliffs: Prentice-Hall.
- Shariff, A. M., N. F. Hasan, Z. Mohamad and K. Jusoff (2010). "The Relationship between Active Teaching and Learning with Graduate's Entrepreneurial Intention and Interest," *Interdisciplinary Journal of Contemporary Research in Business* 2(1), 283-296.
- Singh, J. (1995). "Measurement issues in cross-national research," *Journal of International Business Studies* 26(3), 597-619.
- Solesvik, M. Z. (2013). "Entrepreneurial motivations and intentions: investigating the role of education major," *Education+ Training* 55(3), 253-271.
- Solomon, G. T., S. Duffy, and A. Tarabishy (2002). "The state of entrepreneurship education in the United States: a nation wide survey and analysis," *International Journal of Entrepreneurship Education* 1(1), 65-86.
- Stucliffe, K. N. and T. J. Vogus (2003). *Organizing for resilience, in* Cameron, K. S., Dutton, J. E. and Quinn, R. E. (eds), *Positive Organizational Scholarship*, pp. 94-110, Berrett-Koehler Publishers.
- Tang, J. (2008). "Environmental munificence for entrepreneurs: entrepreneurial alertness and commitment," *International Journal of Entrepreneurial Behavior and Research* 14(3), 128-151.
- Turker, D. and S. Selcuk (2009). "Which factors affect entrepreneurial intention of university students?," *Journal of European Industrial Training* 33(2), 142-159
- Veciana, J. M., M. Aponte, and D. Urbano (2005). "University students' attitudes towards entrepreneurship: a two countries

- comparison,” *International Entrepreneurship and Management Journal* 1, 165-182.
- Weidenbaum, M. and S. Hughes (1996). “Asia’s bamboo network,” *American Enterprise* 7(5), 68-69.
- Wu, S. and L. Wu (2008). “The impact of higher education on entrepreneurial intentions of university students in China,” *Journal of Small Business and Enterprise Development* 15(4), 752-774.
- Yendall, M. (2001). *Establishing a cross-faculty Entrepreneurship Program for Undergraduate*. In: Brockhaus, R. H., Hills, G. E., Klandt, H., Welsch, H. P. (eds) *Entrepreneurship Education. A global view*. Burlington: Ashgate, 301-317.

## 한·중 대학생들의 자기효능감 조절효과분석: 기업가정신교육과 창업의도 관계에서\*

양준환\*\*

---

최근 기업가정신교육은 청년대학생들의 창업에 대한 도전정신 함양과 창업환경 조성을 위해 세계적으로 주목을 받아 오고 있다. 특히 많은 나라의 대학교에서는 대학생들에게 취업의 대안으로 창업을 고려하게 하는 교육수단으로서 기업가정신 교육을 강화해 오고 있다. 국가 간 비교연구에 기반을 두고 진행된 본 연구는 한국과 중국의 대학생들을 대상으로 대학교에서 제공하는 기업가정신교육과 대학생들의 자기효능감이 창업활동과 밀접한 관계에 있는 창업의도에 유의한 영향을 미치는지를 살펴보고자 하였다. 특히 자기효능감이 기업가 정신교육과 창업의도사이에 유의한 조절역할을 하는지에 초점을 맞추어 진행하였다. 연구결과 기업가정신교육과 대학생들의 자기효능감은 한국과 중국 모두 창업의도에 유의한 정의 영향을 미치는 것으로 나타났다. 특히 자기효능감의 조절효과를 확인하기 위해 창업의도에 대한 기업가정신교육과 자기효능감의 상호작용효과를 검증한 결과 한국의 경우 자기효능감이 창업의도에 유의한 조절역할을 하고 있는 것으로 나타난 반면 중국의 경우 유의하지 않음을 보이고 있었다. 이에 따라 한국대학생의 경우 창업에 대한 자기효능감이 중국 대학생들에 비해 더욱 중요함을 알 수 있었다. 마지막으로 본 연구결과에 대한 논의 및 이론적, 실무적 시사점을 제시해 두었다.

**주제어** : 기업가정신교육, 자기효능감, 창업의도, 한국대학생, 중국대학생

---

---

\* 본 연구는 2016년도 단국대학교 교내연구비 지원에 의한 연구임.

\*\* 단국대학교 조교수, 창업지원단 글로벌기업가창업센터장(e-mail: stvyang@dankook.ac.kr)