

A Study of Entrepreneurship Education on Entrepreneurial Orientation of Korean and Chinese University Students: Focused on Entrepreneurial Self-Efficacy as Mediator*

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Abstract

This empirical study was designed to identify the key factors that affect entrepreneurial orientation of university students. An exploratory model was suggested to verify the relationship among the research variables including entrepreneurship education, entrepreneurial self-efficacy, and entrepreneurial orientation (Innovativeness, Proactiveness, Risk-Taking Propensity) in order to attain the purpose of the study. This paper also aimed at investigating the possible difference between Korea and China in entrepreneurial process within this research framework. Total 440 university students participated in this study from both countries; Korea (n=224) and China (n=216). The hierarchical multiple regression was employed for estimating technique by using IBM SPSS statistics Version 23. The findings showed that entrepreneurship education works as a key predictor of entrepreneurial orientation and entrepreneurial self-efficacy as well. Also, entrepreneurial self-efficacy has a positive and significant mediating effect and goes on to further impact entrepreneurial orientation. So, entrepreneurship education should be enhanced extensively in order to promote entrepreneurship of young people. The theoretical and practical implication were presented.

Keyword: Entrepreneurship Education, Entrepreneurial Orientation, Innovativeness, Proactiveness, Risk-Taking Propensity, Entrepreneurial Self-Efficacy, Korean university students, Chinese university students

1. Introduction

Education is one of the most important investments that individuals can make. Education provides various benefits to individuals with new knowledge and capability which enable them to seize better opportunity and improve their quality of life. Entrepreneurship education has been known as a crucial element for growing entrepreneurs, and it has significant impact on entrepreneurial orientation (Brüderl et al., 1992). Notably, educated entrepreneurs are more prone to manage business with higher entrepreneurial orientation versus those who have lesser or non education (Storey & Wyncarczyk, 1996). Kuratko & Hodgetts (2001) claimed that entrepreneurship can also be taught.

Hytti et al. (2010) argued that entrepreneurship education is beneficial to students, because it helps them develop career pathway by instigating entrepreneurial motivation. Miller (1983)

assured that learning influences entrepreneurial orientation of new small and medium sized venture firms. In the literature, entrepreneurial orientation has occupied a core part of entrepreneurship together with the concept of self-efficacy.

Self-efficacy stemmed from social cognitive theory which explains human behavior as a function of personal, behavioral and environmental determinants (Coleman & Kariv, 2014). Boyd & Vozikis (1994) came up with the concept of entrepreneurial self-efficacy belief which is defined as perception on one's capability to become an entrepreneur as well as belief of carrying out entrepreneurial roles and tasks successfully.

Markman & Baron (2003) suggested that entrepreneurial self-efficacy belief is the key explanatory variable which determines the power of entrepreneurial intention.

Both Korea and China are not exceptional for paying high attention in entrepreneurship. Particularly, China has become the second largest global economy power, and entrepreneurship has

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been verified as one key driver underpinning the fast growth of Chinese economy(Huang, 2010).

Under the rapid change of economic circumstance, there is a great demand for promoting entrepreneurship of young people all around the world. Because of this reason, both countries have devoted to introducing and enhancing entrepreneurship education for all university students as a part of general education or compulsory course, regardless of the major. In this context, it is arguably important to investigate the factors that affect entrepreneurial orientation of young people in the region. In the present study, we test the effect of entrepreneurship education at university level, and how it works on developing entrepreneurial self-efficacy and entrepreneurial orientation of university students. We obtained the sample from both South Korea and Mainland China(henceforth, Korea and China each). This study will provide an insight how to reinforce entrepreneurship orientation of young people.

II. Literature Review and Hypothesis Development

2.1 Entrepreneurial Activities in the Region

The real entrepreneurship has commenced since 1978, when China adopted a reform and open policy(Hambrick & Chen, 2008). Thus, entrepreneurial activities in China were maintained minimally until the economic reforms(Yang & Li, 2008). Since adopting economic reforms, major universities and colleges in China have offered entrepreneurship education and the relevant courses around the country(Bruton et al., 2008).

Korea has also reinforced entrepreneurship education at the level of higher education since the Government initiated '5-year plan for entrepreneurship education in universities' back in 2013(Yang, 2015). Global Entrepreneurship Monitor(GEM, 2019) report is widely used for capturing the trend of entrepreneurship of each country that participated in the survey. One interesting point in the report, China shows a little bit ahead of Korea by being ranked 11th versus 14th of Korea out of 54 countries in the NECI(the National Entrepreneurship Context Index).

However, Korea marked 15% in TEA(Total early-stage Entrepreneurial Activity) among adults(ages 18-64), while China presented around 10%. This gap of rating indicates that Korean is acting more dynamic than Chinese in the early stage entrepreneurial activity.

2.2 Entrepreneurship Education

Entrepreneurial education is relevant because it promotes entrepreneurship, that results in positive result on individual, firm, and society level, in turn. Over a short period of time relatively, entrepreneurship education has received remarkable attention from policy makers as well as higher education institutions across the globe. With the supported assumption that entrepreneurship encourages entrepreneurial challenge and venture creation thereby being conducive to the economic development and growth, entrepreneurship education has been facilitated greatly. Entrepreneurship education is even viewed as the panacea for stagnated economic activity(Matlay & Carey, 2006).

Entrepreneurship education is defined as the structured transmission of entrepreneurial competencies like skills, knowledge and mental cognition by means of a formal educational method(Alberti et al., 2004). Entrepreneurship can be acquired through education(Kuratko & Hodgetts, 2001). Lee et al.(2006) also argued entrepreneurship is a potent discipline.

Entrepreneurship education is intended to stimulate and encourage creating new venture by enhancing awareness of entrepreneurship as a process and an unique career possibility(Kassean et al. 2015) Thus, entrepreneurship education seeks to provide students with knowledge, skill-sets, and motivation to encourage entrepreneurial success in the various settings(Gerba, 2012). Matlay(2008) noted that entrepreneurship education had a positive impact upon entrepreneurial activity related to the career aspirations. In this regard, entrepreneurship education is an essential tool to foster entrepreneurship of university students.

2.3 Entrepreneurial Orientation

Entrepreneurial orientation that is a key construct used widely in entrepreneurship literature. It has been displayed to influence firm performance like profitability, growth, and innovation(Moreno & Casillas, 2008).

Bolton & Lane(2012) suggested an individual's entrepreneurial orientation that would be very valuable to faculty when designing pedagogy as well as teaching entrepreneurship. Entrepreneurial orientation is further suggested by a set of three to five sub-scales in business strategy and entrepreneurship literature(Covin & Slevin, 1989; Miller, 1983). These sub-scales include innovativeness, pro-activeness, risk-taking willingness, competitive aggressiveness and autonomy(Lumpkin & Dess, 1996). Innovative-ness, risk-taking and proactiveness, these three scales have been used most dominantly in entrepreneurial

orientation research(Bolton & Lane, 2012). For example, Covin & Slevin(1989) defined entrepreneurial orientation as the tendency being proactive, innovative, and risk-taking during entrepreneurial process, This definition is accepted for the base of the study. In the same vein, Kumar(2013) noted that entrepreneurial orientation is the willingness of a person to create new venture, and it involves methods, processes, practices and decision-making styles. Covin et al.(2006) noted that entrepreneurial orientation must be enhanced to facilitate the pace of entrepreneurship. Miller(1983) conceptualized three traits of entrepreneurial orientation; 1) Innovativeness: predisposition toward creative experimentations via breakthrough or novel operational methods, 2) Proactiveness: nimble movement seeking new opportunities in anticipation of future demand before competition arise, 3) Risk-taking: taking bold actions to attempt at new and unconventional avenue to uncertainty.

Shepherd & Douglas(1997) noted that entrepreneurship education nurtures creative, perceptual, and artistic skills which are core elements of psychological traits. The psychological factors are critical determinants of entrepreneurial orientation(Palmer et al., 2019). Javed et al.(2018) argued entrepreneurial orientation is affected by both psychological and non-psychological factors. So, it is arguable that entrepreneurship education would positively influence each of the three sub-dimensions. Based on the discussion above, we establish following hypothesis;

H1: Entrepreneurial education has positive relationship with entrepreneurial orientation of Korean and Chinese university students.

H1-1: Entrepreneurial education has positive relationship with innovativeness of Korean and Chinese university students.

H1-2: Entrepreneurial education has positive relationship with proactiveness of Korean and Chinese university students.

H1-3: Entrepreneurial education has positive relationship with risk-taking of Korean and Chinese university students.

2.4 Entrepreneurial Self-Efficacy

Self-efficacy is one of key elements of entrepreneurial opportunity pursuit and new venture growth(Markman et al., 2002). Bandura(1982) defined self-efficacy as a belief of one's ability to carry out the given task successfully. He argued that self-efficacy can be acquired through four incremental methods; mastery experiences, observational learning, social persuasion, and emotional arousal. Since the start-up process is demanding and

challenging course of series actions, self-efficacy is an essential element of entrepreneurship. Entrepreneurial self-efficacy derived from this concept about self-efficacy(Coleman & Kariv, 2014).

So, entrepreneurial self-efficacy belief is defined as the perception as to the capability for being an entrepreneur and implementing entrepreneurship successfully(Boyd & Vozikis, 1994). Similarly, Chen et al.(1998) defined it as the belief about one's capability to carry out various entrepreneurial roles and tasks successfully.

Many studies were conducted and verified the positive relationship between entrepreneurial education and entrepreneurial self-efficacy. Lavolette et al.(2012) noted that entrepreneurship education is an effective mean to develop self-efficacy.

Setiawan(2014) argued that entrepreneurship education is important to promote entrepreneurial self-efficacy of university students. Thus, we suggest following hypothesis based on the above discussions;

H2: Entrepreneurial education has positive relationship with entrepreneurial self-efficacy of Korean and Chinese university students.

Tsang(2001) proposed that self-efficacy is made of two types of belief. The first one is competence that impacts the work performance. The second one is activity toward attaining specific result successfully. So, when the belief is positive, people is likely to organize activity toward successful way. Conversely, if the belief is negative, then they would not undertake or abandon the task in the face of obstacles, because of skepticism about their ability. So, the person whose self-efficacy belief is positive pursues higher career goal, and strives for attaining the goal(King, 2004). In the same vein, Milstein(2005) argued that this trait of self-efficacy tells why people behave differently even with similar level of knowledge and competence. So, it is inferable those who possess higher entrepreneurial self-efficacy are more likely to acquire entrepreneurial orientation. So, we establish a hypothesis as following;

H3: Entrepreneurial self-efficacy has positive relationship with entrepreneurial orientation of Korean and Chinese university students.

H3-1: Entrepreneurial self-efficacy has positive relationship with innovativeness of Korean and Chinese university students.

H3-2: Entrepreneurial self-efficacy has positive relationship with proactiveness of Korean and Chinese university students.

H3-3: Entrepreneurial self-efficacy has a positive relationship with risk-taking of Korean and Chinese university students.

Entrepreneurial self-efficacy as a mediator: Many studies have tested and verified mediating effect of entrepreneurial self-efficacy, mostly in the relationship with intention(Zhao et al., 2005; Prabhu et al., 2012; Tsai et al, 2016). Some recent studies reported mediating effect of entrepreneurial self-efficacy in the relationship between entrepreneurship education and entrepreneurial intention(Izquierdo & Buelens, 2011; Oyugi, 2015; Yang, 2015). Thus, arguably we assume that entrepreneurial self-efficacy would also play as a mediator in the relationship between entrepreneurship education and entrepreneurial orientation. So, it is hypothesized;

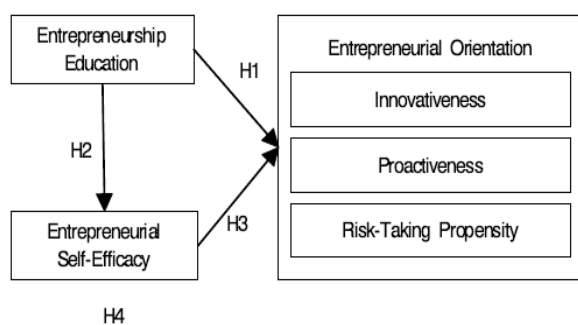
H4: Entrepreneurial self-efficacy will mediate the relationship between entrepreneurial education and entrepreneurial orientation.

III. Research Design

3.1 Research Framework

The aim of this empirical study is to ascertain the effect of entrepreneurship education on entrepreneurial orientation and entrepreneurial self-efficacy of university students in Korean and Chinese university students setting. The construct of entrepreneurial orientation was operationalized under the three key sub-dimensions in line with previous studies. <Figure 1> displays the research model of this study.

<Figure 1> Research Model



3.2 Data Collection and Measurement

The data of this study is abstracted from the sample made of Korean and Chinese university students from three different universities each country. Self-administrated questionnaire via convenience sampling method was used to gather a large sized quantitative data. Regarding the survey process, full supports by faculty members of each university were made it possible to

collect the data. The students were explained about the purpose of the study before they were asked to fill in the survey questionnaire. The confidentiality and anonymity of the survey result were firmly assured, and so asked to answer all question items with free will. The survey was completed over three months from April to June 31, 2018. Consequently, we were able to get total 440 valid data from each country(224 from Korea, 216 from China). The measuring instrument was developed based on the entrepreneurship literature. The survey questionnaire consisted of two parts; The first part was for collecting demographic information, followed by the question items for five key variables that were all measured by 5-point Likert scale(1=never and 5=very often). Back-translation method(Brislin et al, 1973) was used to develop Chinese version questionnaire on the basis of Korean original version. The cognitive homogeneity of the instrument were checked to ensure if the students of both countries had identical understandings on the contents of the instrument.

Entrepreneurial education: In accordance with Alberti et al.(2004), entrepreneurship education(EE) is defined as a structured conveyance of entrepreneurial competencies by education. This variable was measured by modifying the questionnaire validated in the previous studies(Lee et al., 2006; Wu & Wu, 2008; Yang, 2018). Some of the survey questions include 'Entrepreneurship education increase knowledge and skills necessary to be entrepreneurs', 'Entrepreneurship education helps strengthen entrepreneurial willingness', 'Entrepreneurship education is important to develop the entrepreneurial competence'.

Entrepreneurial Orientation: This study defines entrepreneurial orientation(EO) as the propensity being proactive, innovative, and risk-taking during entrepreneurial process in line with Covin & Slevin(1989). The three sub-dimensions including innovativeness, proactiveness, and risk-taking were used to conceptualize the construct of entrepreneurial orientation, as Miller(1983) suggested. Some sample questions for measuring innovativeness(IN) are 'I'm willing to accept change', 'I think I'm a kind of innovative problem solver', 'I try to find a creative solution against difficult problems'. The items to measure proactiveness(PR) include 'I tend to foresee future events or changes, and act upon them in advance', 'Im an early planner for any expected projects to come', 'I dare to take a competitive strategy even it was abandoned by competitors'. For measuring risk-taking(RT), the items include 'I'm ready to challenge the unknown world', 'I tend to take bold actions in chaotic situation', 'I'm an easygoing type even in the face of difficult problem'. etc.

Entrepreneurial self-efficacy: Entrepreneurial self-efficacy(ESE) is defined as the belief of one's capability for executing entrepreneurial project successfully. We referred to the previous

studies such as Chen et al.(1998), Markman & Baron(2003), Yang(2019) to develop the question items. Some examples include 'I like competitive situation', 'It's not such challenging thing to run my own venture successfully in the future', 'I can overcome any difficult status I may encounter'.

Control variables: School year, gender, major, and parents job are used as control variables in this study. School year was coded by 1=Freshman through to 4=Senior. Gender was coded as a dichotomous variable by 1=Man, 2=Woman. Likewise, parents job was coded 1=employer, 2=employee.

3.3 Sample Characteristics

The sample consists of all undergraduate of majoring in social science, engineering, and art and physical education from three universities in Korea and China respectively. The advantage of this sample is that we collected the data across three big categories of major which made it possible to capture wide breadth cognition of university students on entrepreneurship. As shown on <table 2>, male students occupied 66.5% in Korea, while 36.1% in China. Sophomore presented the majority in both countries (Korea: 46%, China: 53.2%). Also, social science was reported to be the largest stake in the section of major. Lastly, 48.2% of Korean students responded their parents are self-employed versus 33.3% of Chinese students.

<Table 1> Demographic Characteristics

		Korea(n=224)		China(n=216)	
		Freq.	Weight(%)	Frq.	Weight(%)
Gender	Male	149	66.5	78	36.1
	Female	75	33.5	138	63.9
Univer.	A	73	32.6	93	43.1
	B	107	47.8	65	30.1
	C	44	19.6	58	26.9
Year	Freshmen	38	17.0	83	38.4
	Sophomore	103	46.0	115	53.2
	Junior	42	18.8	17	7.9
	Senior	41	18.3	1	.5
Major	Social Science	174	77.7	168	77.8
	Natur. & Enig.	36	16.1	29	13.4
	Art and Phy.	14	6.3	19	8.8
Parents	Employee	108	51.8	144	66.7
	Self-employed	116	48.2	72	33.3

IV. Result of Analysis

4.1 Data Analysis

The principal components analysis has a benefit to expurgate the scales and the dimensionality of the constructs(Pedhazur & Schmelkin, 1991).

<Table 2> Factor analysis result (Korea)

Item	EE	IN	PR	RT	ESE	Eigen Value	Cronb. a
EE1	.787					2.921	.784
EE2	.765						
EE4	.758						
EE3	.692						
EE5	.562						
IN2		.728				2.083	.764
IN3		.715					
IN1		.624					
IN5		.582					
PR3			.748			2.232	.708
PR1			.724				
PR2			.703				
PR4			.613				
RT2				.785		2.897	.796
RT1				.724			
RT4				.715			
RT5				.631			
RT3				.614			
ESE3					.848	3.232	.822
ESE1					.750		
ESE4					.736		
ESE2					.696		
ESE5					.508		

EE: Entrepreneurship Education, IN: Innovativeness, PR: Proactiveness, RT: Risk-Taking Propensity, ESE: Entrepreneurial Self-Efficacy.

Principal components analysis was employed for simultaneous multi-group exploratory factor analysis(EFA) so as to appraise the dimensions and examine the content and construct validity of our research variables. In the first run, five distinct groups of variables were identified in Korea but each one item of PR and IN were cross-loaded on ESE and PR, whereas each one item of IN and PR were cross-loaded on PR and ESE in China.

<Table 3> Factor analysis result (China)

Item	EE	IN	PR	RT	ESE	Eigen Value	Cronb. a
EE4	.800					5.137	.859
EE1	.797						
EE2	.756						
EE3	.752						
EE5	.723						
IN3		.747				1.942	.851
IN2		.719					
IN1		.704					
IN5		.686					

PR3			.798			3.015	.841
PR1			.774				
PR2			.712				
PR4			.706				
RT2				.815		3.342	.847
RT1				.774			
RT4				.753			
RT5				.716			
RT3				.623		3.392	.882
ESE3					.826		
ESE1					.737		
ESE4					.727		
ESE2					.679		
ESE5					.641		

At the second run without cross-loaded items, each five distinctive factors were identified clearly with the factor loading that were all above .50. Auken et al.(2006) suggested that the factor loading higher than .50 is regarded as high enough to be included in the same factor. The five factors of Korea data explain 53.46% of the total variance(Kaiser-Meyer-Olkin(KMO), measure of sampling adequacy=.813; Bartlet's test of Sphercity, adequate of the data for analysis=2111.7, $p < .01$).

The five factors of Chinese data explains 59.90% of the total variance(Kaiser-Meyer-Olkin(KMO)=.908; Bartlet's test of Sphercity=3287, $p < .01$). So, factor analyses of both countries were satisfied with the pre-requisite conditions. <Table 2> and <Table 3> present the results of factor analysis.

4.2 Correlation Matrix

The validated items in each construct were summed up subsequently to calculate the independent, mediating and dependent variables. The co-relationship patterns between the variables were tested by Pearson correlation analysis. Test result reported that the five variables are all co-related significantly. It is highly likely that the data are free from multicollinearity problem, as all r values displayed on the result are far below .80(Hair et al, 2010). <Table 4> and <Table 5> display descriptive statistics and the correlation matrix of the variables of both countries.

<Table 4> Descriptive statistics and correlations (Korea)

Var.	Mean	SD	EE	ESE	IN	PR	RT
EE	3.670	.623	1				
ESE	3.486	.654	.231***	1			
IN	3.620	.670	.173***	.226***	1		
PR	3.302	.618	.298***	.513***	.280***	1	
RT	3.116	.725	.363***	.467***	.252***	.427***	1

* $p < .1$, ** $p < .05$, *** $p < .01$

<Table 5> Descriptive statistics and correlations (China)

Var.	Mean	SD	EE	ESE	IN	PR	RT
EE	3.706	.695	1				
ESE	3.586	.653	.513***	1			
IN	3.439	.676	.289***	.540***	1		
PR	3.654	.629	.327***	.623***	.746***	1	
RT	3.383	.719	.353***	.531***	.605***	.622***	1

* $p < .1$, ** $p < .05$, *** $p < .01$

4.3 Findings

The established hypotheses were tested employing hierarchical multiple regression analysis with statistical software package software package(IBM SPSS statistics 23). The first step was to enter control variables first and followed by the main effect variables in the model 2. Multicollinearity problem was carefully monitored by checking the tolerance and variance inflation factor(VIF). The tolerance owere all above .10, and the VIF were all below 10 that met criteria suggested by Hair et al.(2010). We also tested the independence of errors through Durbin-Watson statistic of all tested models. The statistics displayed all within the acceptable range from 1 to 3(Field, 2005). H1 proposed that EE has a positive relationship with the three sub-dimensions of EO of Korean and Chinese university students. Three separated regression models, H1-1, H1-2, H1-3 were tested orderly way under same repeated procedure as described above. <Table 6> reports the regression results of H1.

<Table 6> Regression Analysis Result for H1

	H	Dep. V.	R ²	B	S.E.	β	Result
Kor	H1-1	IN	.062	.177	.073	.165***	Accepted
	H1-2	PR	.130	.294	.065	.296	Accepted
	H1-3	RT	.208	.406	.073	.348	Accepted
Chn	H1-1	IN	.150	.298	.063	.307	Accepted
	H1-2	PR	.155	.303	.059	.335	Accepted
	H1-3	RT	.134	.354	.068	.342	Accepted

* $p < .1$, ** $p < .05$, *** $p < .01$

As showed, EE influenced the three sub-dimensions of EO significantly; Korea: IN($\beta = .165$, $R^2 = .062$, $p < .01$), PR($\beta = .296$, $R^2 = .130$, $p < .01$), RT($\beta = .348$, $R^2 = .208$, $p < .01$); China: IN($\beta = .307$, $R^2 = .150$, $p < .01$), PR($\beta = .335$, $R^2 = .155$, $p < .01$), RT($\beta = .342$, $R^2 = .134$, $p < .01$). So, the three hypotheses H1-1 to H1-3 were all supported in both countries.

<Table 7> Regression Analysis Result for H2

	H	Dep. V.	F	B	S.E.	β	Result
Kor	H2	ESE	.090	.228	.071	.216***	Accepted
Chn	H2	ESE	.316	.491	.055	.522***	Accepted

* $p < .1$, ** $p < .05$, *** $p < .01$

H2 was to test if EE has a positive relationship with ESE. The test result made it clear that EE has a positive and significant relationship with ESE(Korea: $\beta = .216$, $R^2 = .090$, $p < .01$; China: $\beta = .522$, $R^2 = .316$, $p < .01$) in both countries, too. H2 was also supported by this regression result. <Table 7> shows the regression result of H2.

<Table 8> Regression Analysis Result for H3

	H	Dep. V.	R ²	B	S.E.	β	Result
Kor	H3-1	IN	.082	.207	.067	.206***	Accepted
	H3-2	PR	.283	.459	.055	.490***	Accepted
	H3-3	RT	.287	.498	.065	.453***	Accepted
Chn	H3-1	IN	.325	.548	.061	.529***	Accepted
	H3-2	PR	.407	.594	.053	.617***	Accepted
	H3-3	RT	.296	.592	.066	.538***	Accepted

* $p < .1$, ** $p < .05$, *** $p < .01$

H3 suggested whether ESE influences the three sub dimensions of EO positively. The result presented that ESE affects each sub scale of EO positively as followings; Korea: IN($\beta = .206$, $R^2 = .082$, $p < .01$), PR($\beta = .490$, $R^2 = .283$, $p < .01$), RT($\beta = .453$, $R^2 = .287$, $p < .01$); China: IN($\beta = .529$, $R^2 = .325$, $p < .01$), PR($\beta = .617$, $R^2 = .407$, $p < .01$), RT($\beta = .538$, $R^2 = .296$, $p < .01$). Therefore, H3-1, H3-2 and H3-3 were all supported in both countries. <Table 8> reports the regression result of H3.

The final hypothesis, H4 was to test the mediating effect of ESE between EE and EO. The EO was formed by averaging the total sum of the three sub scales of EO.

<Table 9> Results of Mediating Effect of ESE

	Step	Depen d. Var.	Independ. Var.	B(non-standard)	SE	β
Kor	1	ESE	EE	.244(a)	.069	.231***
	2	EO	EE	.301(c)	.050	.378***
	3	EO	EE	.213(c)	.043	.251***
ESE			.364(b)	.041	.490***	
Chn	1	ESE	EE	.482(a)	.055	.513***
	2	EO	EE	.314(c)	.054	.369***
	3	EO	EE	.046(c)	.052	.054
ESE			.556(b)	.055	.613***	

* $p < .1$, ** $p < .05$, *** $p < .01$

Baron & Kenny(1986) defined a mediator in a simple way; 1) X significantly predicts Y, 2) X significantly predicts M, 3) M

significantly predicts Y controlling for X(where X=independent variable, Y=dependent variable, M=mediating vari-able).

Meanwhile, when the effect of independent variable on dependent variable decreased significantly but not to zero, then it is said partial mediation is occurred(Preacher & Hayes, 2004). As reported on <Table 9>, ESE has a partial mediating role in Korea, while it has a full mediating effect in China as the effect of EE(X) on EO(Y) becomes non-significant($\beta = .054$), even ESE(M) significantly predicts EO(Y) in statistic($\beta = .613$, $p < .01$) in the step 3. Sobel test has also been widely used to detect mediator(Preacher & Hayes, 2004). For a double-check, Sobel test was conducted through ‘Sobel Test for the Significance of Mediation’(Free Statistics Calculators, version 4.0, 2020); ‘Sobel test statistics’; Korea=3.2852($p < .01$), China=6.6217 ($p < .01$). As these statistics were all greater than +1.96, ESE has a role of mediator(Baron & Kenny, 1986) in both countries. Thus, H4 was also supported.

V. Discussion and Conclusion

This study proposes an exploratory model to confirm the relationship among entrepreneurship education, entrepreneurial self-efficacy and entrepreneurial orientation focused on Korean and Chinese university students. This study provides clear evidence on the role of entrepreneurship education for enhancing entrepreneurial self-efficacy and entrepreneurial orientation of young people. The findings explain that entrepreneurship education works as a key predictor of entrepreneurial orientation and entrepreneurial self-efficacy.

Additionally, entrepreneurial self-efficacy has a positive mediating effect and goes on to further impact entrepreneurial orientation. The mean values of all the variables measured by 5-point Likert scale were greater than three in both countries. This means that respondents are all confident about the effect of entrepreneurship education in promoting entrepreneurial orientation.

Overall this study contains both significant theoretical and managerial implications. First, we have contributed to the literature by confirming the arguments of prior studies with regards to the effect of entrepreneurship education on entrepreneurial orientation and entrepreneurial self-efficacy. More specifically, the findings from regression analysis made it clear that entrepreneurship education influences entrepreneurial orientation with the determinants of innovativeness, proactiveness and risk-taking propensity significantly. But it showed that entrepreneurship education has a little amount of effect on innovativeness among the three sub-dimensions in Korea, whereas

it affects evenly them in China. The same phenomenon appeared in the relationship between entrepreneurial self-efficacy and innovativeness in Korea, while the effect of entrepreneurial self-efficacy was not fluctuated over all the three sub-dimensions of entrepreneurial orientation in China. In the meantime, entrepreneurship education had a positive relationship with entrepreneurial self-efficacy regardless of cultural difference. Thus, we could prove the importance of education again in fostering entrepreneurship of young university students.

The results of this study can be adopted by school authorities in order to promote and nurture entrepreneurship of university students by providing them with well-organized and practical education. Our findings can also be used for preparing diverse and effective programs for young people, since entrepreneurs are made and different characteristics can be changed or acquired. As identified in the present study that formal entrepreneurship education boosts entrepreneurial orientation as well as entrepreneurial self-efficacy, education must be reinforced.

Obviously, lack of appropriate education is an impediment in growing entrepreneurial culture and environment. Building dynamic entrepreneurial culture could be achieved by educating young people. Thus, providing education and building supportive entrepreneurial environment are vital. These potent entrepreneurs will work as new wave of economic prosperity into our society.

The major limitation of the study is the limit of number of universities participated in this study from both countries. This low number of universities may make it difficult to generalize the findings of this study. Since we relied on the simple research model intended to focus on the role of entrepreneurship education, we were not able to execute more sophisticated and in-depth analysis on the relationship among the variables.

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기업가정신교육이 한·중대학생들의 기업가적 지향성에 미치는 영향: 자기효능감의 매개효과를 중심으로*

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국 문 요 약

본 연구는 기업가정신 교육이 한국과 중국 대학생들의 기업가지향성과 자기효능감에 미치는 기업가정신교육의 영향을 탐색적 연구 수준에서 실증적으로 분석하였다. 특히 본 연구는 기업가정신 교육이 기업가지향성의 세 가지 하부요인인 혁신성, 자기주도성, 위험 감수성 및 창업자기효능감에 미치는 영향을 분석하였다. 본 연구를 위한 표본은 한국과 중국 각 3개 대학교 대학생들을 추출하였으며 한국 224명, 중국 216명, 총 440명이 연구에 참가하였다. 데이터분석은 IBM SPSS statistics 23 통계프로그램을 이용하였고 위계적 다중회귀 분석을 이용하여 수립한 가설을 분석하였다. 분석결과 기업가정신 교육은 한국과 중국 대학생들의 기업가지향성 및 자기효능감에 유의한 정(+)의 영향을 미치는 것으로 나타났다. 또한 자기효능감은 대학생들의 기업가지향성에 유의한 정(+)의 영향을 미치는 한편 매개효과를 보이는 것으로 나타났다. 기업가정신 교육이 대학생들의 기업가지향성 및 자기효능감에 유의한 영향을 미침에 따라 미래 기업가 양성을 위한 기업가정신 교육의 중요성을 제고하였다. 또한 이론적, 실무적 시사점과 함께 효과적인 기업가정신 교육방법론 개발의 필요성을 제시하였다.

핵심주제어: 기업가정신교육, 기업가지향성, 혁신성, 주도성, 위험 감수성, 자기효능감, 한국대학생, 중국대학생

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저자는 본 논문의 심사과정에서 귀한 의견과 제안을 통해 논문의 완성도에 크게 기여해 주신 익명의 세 분 심사자님께 감사드립니다.