

A Study on Entrepreneurship Education and Entrepreneurial Intentions of Jewelry Design Majors in South Korea

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Abstract: Currently, South Korea is making active effort to create an environmental suitable for entrepreneurship. Universities offer relevant education through additional courses related to entrepreneurship but are not managing the quality of entrepreneurship education. For that reason, this study investigated the current status of entrepreneurship education based on students majoring in jewelry design which offers more flexible conditions for starting up a business. For the study, a survey was conducted among students who received entrepreneurship education and those who did not and the result was analyzed by using PLS.

Key words: Entrepreneurial intentions, PLS, question investigation, entrepreneurship education, entrepreneurial intentions, current status

INTRODUCTION

Background and purpose: Since, 2013, the South Korean government is striving to create an environment in which anyone who has creative ideas and technologies can start up a business without fear of failure. On September 5, 2013 in order to solve the problem of 'growth without employment, the government announced a 5 years (2013-2017) plan for university entrepreneurship education in which Ministry of Science, ICT and Future planning, small and medium business administration and Ministry of Education participate for the purpose of achieving '70% employment rate' and realizing creative economy. Currently, entrepreneurship education included in curricula of most universities in South Korea as part of effort to attract government-sponsored projects for, for instance, Advancement of College Education (ACE), specialization (CK-1), Industry-academy cooperation (LINC), entrepreneurship, Industry-linked Education (PRIME), humanities reinforcement in college (CORE) and life-long education colleges. This shows strong determination to establish an open entrepreneurship support system in which students can reinforce their entrepreneurial competence and start up a business based on customized entrepreneurship education (MOE., 2013). However, most universities are simply offering entrepreneurship education as part of their curricula and there is very limited research on the effects of the education on entrepreneurial intentions. Also, there

is no research on improvement of quality of current entrepreneurship education. Therefore, this study looked into whether entrepreneurship education provided by universities leads to entrepreneurial intentions of students.

MATERIALS AND METHODS

Method and scope: In order to examine whether entrepreneurship education has an effect on entrepreneurial intentions, the researcher, considered that entrepreneurial spirit, social relations between friends and seniors which are discussed as 'Innovative', 'Enterprising' and 'Risk sensitivity' as innovative thinking are basically factors for entrepreneurship. The subjects of the study were limited to students majoring in jewelry design which by nature is classified as a specialized curriculum and less influenced by space, time and capital when starting a relevant business. Also, there is less risk involved with starting up the business because there are only a small number of competitors in the industry which is also concentrated on retail trade. In addition, development of social media opened up possibilities of creating a business without renting a store, thus, reducing the business risks. Furthermore, it is relatively easy to find out whether the relevant entrepreneurship education leads to entrepreneurial intentions in comparison to other majors. As a study method, a survey focusing on innovation,

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progressiveness, risk sensitivity and sociality suggesting social network and entrepreneurship education was conducted among students who enrolled in university in 2013 or later and completed entrepreneurship education. The data were analyzed by using PLS 2.0 to draw conclusions.

Theoretical background

The concepts of entrepreneurship and entrepreneurial intentions: The concepts of entrepreneurship and entrepreneurial intentions entrepreneurship or start-up, means starting a business venture as defined by Article 2 of small and medium entrepreneurship support act (Mun-Sung *et al.*, 2010). Joseph (1934) defined it as a creative activity of starting a new ventures business as a means to create and increase wealth by rearranging or redistributing resources in a new way. Entrepreneurial intentions are a key concept in understanding the process of entrepreneurship and refer to a behavioral and intentional attitude. It is the first step in the long process of entrepreneurship. Intentions are the most important factor that determines a behavior (Krueger and David, 2000). Therefore, entrepreneurial intentions mediate between attitude and experience via. behavior (Bang-Sub, 2004). As a factor that indicates entrepreneurial intentions, entrepreneurship is commonly cited. It was fragmentarily studied during the 1960 and 1970's, before Miller brought attention to organizational entrepreneurship. Since, then research has been conducted regarding a broad range of relevant subjects such as entrepreneurship on different levels of an organization such as member, team or department organizational culture and entrepreneurship process on an organizational level (Byung-Oh, 2011) and expanded understanding of the essence of entrepreneurship from the psychological and mental state of entrepreneur to abilities or action required for entrepreneurs (Byung-Ju, 2003). In general, entrepreneurship is known as a 'business mindset' in South Korea as a result of Korean scholars translating the English word 'entrepreneurship' based on a Japanese word of a similar concept (Yun-Chul, 2007). However, it gives a nuance that entrepreneurship is similar to the word 'businessman and that it is part of business management (Byung-Oh, 2011).

Concept and necessity of entrepreneurship education: Concept and necessity of entrepreneurship education according to Byung-Ju (2003), entrepreneurship education is highly important as it motivates individuals to start a business and provides knowledge and skills that influence success of a venture enterprise. Therefore,

creating a foundation for such education is critical and as part of the relevant effort, universities are providing systematic entrepreneurship education as part of career education. Argues entrepreneurship education refers to education of all activities required in the process of establishing and operating a company and that it should include operation and management as well as establishment of a business. Yun-Chul (2007) suggests entrepreneurship education can be broadly defined as education of contents related to business management to potential entrepreneurs who might not be actually preparing for or managing a business. Entrepreneurship education is a type of future-oriented education that encourages learners to have hope and dreams by providing an opportunity for them to become an entrepreneur, regardless of the size of the businesses. And argues lack of basic business management skills is one of the most common causes of business failure and that entrepreneurship education aimed at improving management skills is needed (Joo-Mi and Jae-Pil, 2011). The previous research emphasizes the importance of entrepreneurship education for improving entrepreneurial intentions. Entrepreneurship education is highly important because it can lead to entrepreneurial intentions. It can increase entrepreneurial intentions of the young generation who are potential entrepreneurs, especially, students who have a negative perception toward entrepreneurship. The possibility of entrepreneurial success can be increased by improving relevant competency through entrepreneurship education (Mok and Choi, 2012). Currently, according to the 2014 University Entrepreneurship Infrastructure Survey conducted by SMBA, presented in Table 1, the numbers of startup classes and the attendants provided by universities in South Korea were 965 and 48.139, respectively in 2012 and increased to 2.561 and 124.288 with 143.6 and 154.9% increase, respectively. This suggests entrepreneurship education is being actively provided in South Korea.

Current status of entrepreneurship education for jewelry design majors: Current status of entrepreneurship education for jewelry design majors in order to examine the current status of entrepreneurship education for jewelry design majors in South Korean universities, the study investigated the relevant courses offered by five colleges including a jewelry design department. In South Korean universities, entrepreneurship-related courses for jewelry design departments Table 2 were newly created following reorganization of the curricula in 2013. The courses are mostly open to juniors and seniors in order

Table 1: Number of entrepreneurship lecture and attendance per year in Korea

Variables	2012	2013	2014	
	Frequencies	Frequencies	Percentage change	Frequencies
Number of entrepreneurship lecture	965.000	1.051	8.9	143.6
Number of attendance	48.139	48.747	1.2	154.9

Table 2: Current status of entrepreneurship-related courses for jewelry design department in South Korean Universities

University/location	A subject/open grade
A University (Seoul)	Craft Management 3
	Craft Seminar 3
	Cultural Studies and planning 4
	Common: internship, self-development in-depth counseling
B University (Iksan)	Convergence Jewelry Design 4
	Storytelling Project Design 3
	Studio Process 4
	Common: Graduation Certification System (Internship, Capstone Design, Community Service, Choose One) Essential Subject
B University (Gyeonggi-do)	Jewelry Fashion Capstone Design 4
	Design Project 3
	Fashion Promotion 4
D University (Seoul)	Common: Internship
	Metal Design Research 3
	Design Business 4
	Common: Internship, Seminar with Master and Disciples

Table 3: Measuring variables

Division	Measuring variables
Entrepreneurial = Sart-up mind	Innovation Progressiveness Risk Sensitivity
Sociability = Social network	Maintain intimacy
Education	Entrepreneurship education process
A dependent variable	Entrepreneurial intentions

to encourage students to start a business after graduation based on their design competence and focused on prospective entrepreneurs. The courses consist of classes that encourage entrepreneurial mindset such as Craft Management, Craft Seminar, Studio Process, Fashion Promotion and Design Business and Those That are Related to Creative Design such as Culture Research Planning, Convergence Jewelry Design, Storytelling Project Design, Jewelry Fashion Capstone Design, Design Project and Metal Design Research. Also, subjects intended to promote exchange between industries and academy such as field learning, self-development counseling, volunteering and teacher-student seminar and social network based on mentoring between students or between professors and students are made mandatory for graduation. The findings suggest entrepreneurship education for Jewelry Design Departments in South Korean universities focuses on business management, creative design and social network.

Research design

Research model: This study was conducted in order to verify the effects of entrepreneurship education on entrepreneurial intentions of students majoring in jewelry design in South Korea universities. Theoretical review suggests innovation, progressiveness and risk sensitivity which comprise entrepreneurship are important factors. Also, social network is included as a mandatory subject in the curriculum designed for jewelry design students, suggesting it is a highly important factor in

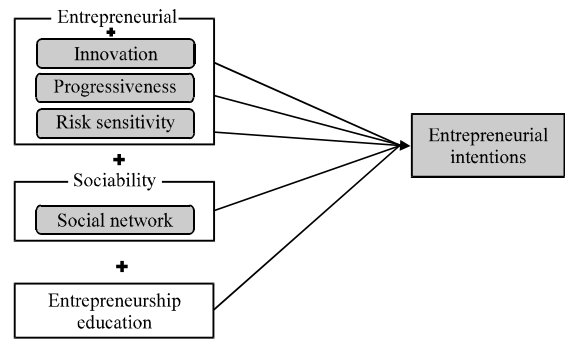


Fig. 1: Research model

entrepreneurship education. Based on the result, innovation, progressiveness and risk sensitivity which represent entrepreneurship and sociality for forming social network and entrepreneurship curriculum were selected as independent variables and entrepreneurial intentions as a dependent variable (Table 3). The research model was presented in Fig. 1.

Hypotheses: In this study, conducted in order to verify the effect of university entrepreneurship education entrepreneurial intentions of jewelry design students, the following hypotheses were set based on the measured variables and research model:

- Entrepreneurship education will have a positive effect on entrepreneurship and sociality development
- Entrepreneurship education will have a positive effect on innovation
- Entrepreneurship education will have a positive effect on progressiveness
- Entrepreneurship education will have a positive effect on risk sensitivity
- Entrepreneurship education will have a positive effect on sociality
- Entrepreneurship education will have a positive effect on entrepreneurial intentions

Survey design and data collection: To verify the effect of entrepreneurship education on entrepreneurial intentions of jewelry design majors, a survey was conducted among 200 university students in South Korea who major in jewelry design and enrolled in university in 2013 or later. The survey consisted of 18 questions: three questions related to innovation, progressiveness and risk sensitivity which are variables for entrepreneurship three questions related to sociality for social network three questions related to continuing participation in entrepreneurship education and factors that are considered most important for startup preparation five entrepreneurial intentions and four basic questions about gender, age, desired field of profession and area of interest

RESULTS AND DISCUSSION

In the survey conducted among 200 jewelry design students who enrolled in university in 2013 or later and completed entrepreneurship education in order to verify the effects of entrepreneurship education on entrepreneurial intentions of the students, 160 copies were collected and 130 copies were preprocessed and analyzed. The result was as follows:

Basic statistics: In the basic statistics, among the 130 respondents, 80% were female and 20% male Fig. 2 which is explained by the nature of the major. Also, the majority of respondents chose design as their area of interest and desired field of profession (Fig. 3).

Also, the most emphasized factor in entrepreneurship education was design, followed by marketing and management knowledge; capital and network while respondents rated design, management knowledge, marketing, capital and network in the order as most important factors in starting a business. Strategies for successful entrepreneurship were design, capital, marketing, management knowledge and network in the order, suggesting design was most emphasized or considered important in all areas of entrepreneurship education (Fig. 4).

Reliability and validity analysis: In this study, to verify the research model, SmartPLS 2.0 was used to verify internal consistency, convergent validity and discriminant validity of the questions and constructs of the survey. To verify internal consistency, composite reliability and reliability of innovation, progressiveness, risk sensitivity and sociality which represent entrepreneurship, curriculum and entrepreneurial intentions. The result was presented in Table 4. The composite reliability was higher than 0.7, the threshold proposed by Nunnally and

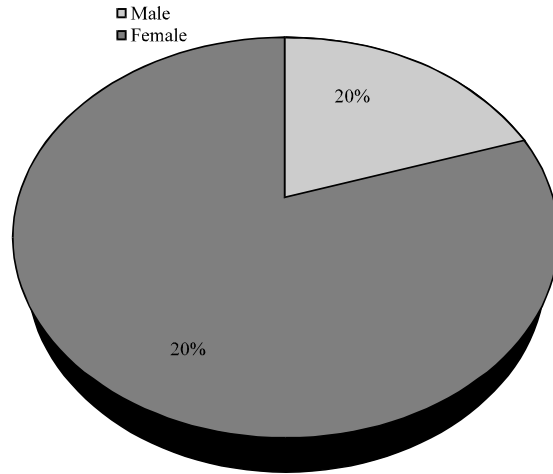


Fig. 2: Gender

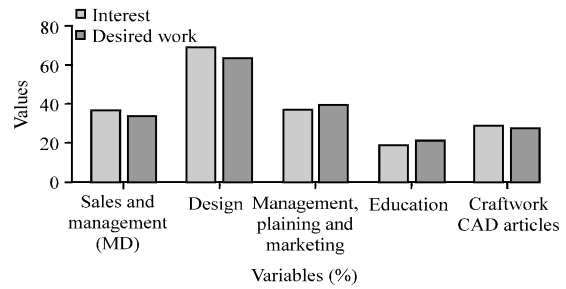


Fig. 3: Preference

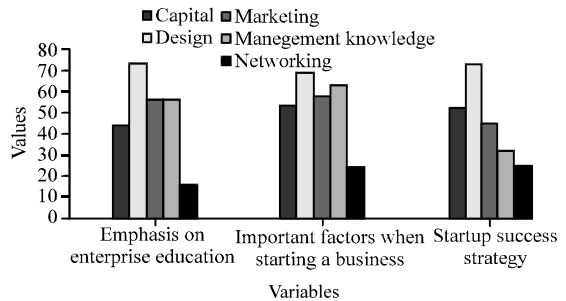


Fig. 4: Emphasis on entrepreneurship education Importance

Thompson *et al.* and Cronbach’s alpha higher than 0.7. Therefore, the composite reliability was fitting. Convergent validity was verified based on Average Variance Extracted (AVE) and factor loading of the constructs. The AVE was higher than 0.5, the threshold proposed by Fornell and Larcker, Chin *et al.* while factor loading of the constructs was higher than 0.5, the threshold for validation proposed by Fornell and Larcker. All of the t values for factor loading were 1.96 or higher. Discriminant validity was verified based on whether the square root of AVE marked

Table 4: Internal consistency, convergent validity, discriminant validity verification

Variables	Composite		Cronbachs		Risk		Entrepreneurship education	Entrepreneurial intentions	Innovation
	reliability	AVE	alpha	Sociability	sensitivity	Progressiveness			
Sociability	0.805	0.583	0.802	1.000					
Risk sensitivity	0.855	0.663	0.847	0.435	1.000				
Progressiveness	0.765	0.621	0.753	0.482	0.571	1.000			
Entrepreneurship education	0.906	0.708	0.902	0.189	0.223	0.326	1.000		
entrepreneurial intentions	0.906	0.709	0.903	0.347	0.445	0.479	0.424	1.000	
Innovation	0.771	0.631	0.752	0.369	0.411	0.433	0.146	0.468	1.000

Table 5 : Hypothesis analysis result

Hypo thesis	Route	Path coefficient	t-values	Hypothesis analysis results
1	Innovation→entrepreneurial intentions	0.277	8.007	Adopt
2	Progressiveness→entrepreneurial intentions	0.149	4.159	Adopt
3	Risk Sensitivity→entrepreneurial intentions	0.160	4.990	Adopt
4	Sociability→entrepreneurial intentions	0.484	1.989	Adopt
5	entrepreneurship education→entrepreneurial intentions	0.290	8.859	Adopt

on the diagonal axis of correlation coefficients between constructs was greater than correlation coefficient between other constructs Fornell and Larcker. The result was greater than the largest correlation coefficient (0.571) among the square roots of AVE (1.000), suggesting the discriminant validity was fitting. As the internal consistency, convergent validity and discriminant validity of the constructs and questions used in the research model all satisfied the standards. Therefore, the model was deemed suitable for model analysis.

Hypothesis verification: Table 5 shows the result of PLS path analysis for the research model. PLS analysis was used for verifying the path coefficient and significance thereof. To do so, the entire sample was used for calculating a path coefficient for the model and the bootstrap method provided by PLS for calculating the t value of the path coefficient. The result showed that, all of the six hypotheses proposed in this study were significant and therefore, all of them were adopted. Especially, hypothesis 5 showed higher t-value than the other hypotheses, suggesting the greatest effect on the effect of entrepreneurship education on entrepreneurial intentions.

In this study to verify the hypothesis that, entrepreneurship education would have a positive effect on entrepreneurial intentions of students majoring in jewelry design in South Korean universities as independent variables, entrepreneurship, sociality for forming social network and entrepreneurship education curriculum were selected.

After designing a research model, a survey was conducted among 200 jewelry design students who enrolled in university in 2013 or later and competed entrepreneurship education, analysis of 130 copies among 160 collected copies by using PLS 2.0 showed that entrepreneurship (innovation, progressiveness, risk sensitivity), sociality and entrepreneurship all had positive effects on entrepreneurial intentions. Especially, entrepreneurship education showed the highest correlation with entrepreneurial intentions in all

verifications. Also, design was considered a highly important factor in entrepreneurship education for jewelry design majors, considerations for starting a business answered by the respondents and strategies for successful entrepreneurship. Therefore, design education will need to be further enhanced in entrepreneurship education for jewelry design majors and more professional and systematic entrepreneurship education can lead to entrepreneurial intentions suitable for contemporary society and creation of startup environment that can contribute to creative economy.

LIMITATION

This study was limited to students majoring in jewelry design and only a segment of South Korean industries.

RECOMMENDATION

Future study will need to include a wider range of fields and majors and investigate variables that influence the effects of entrepreneurship education on entrepreneurial intentions.

CONCLUSION

In order to examine the causal relation between entrepreneurship education and entrepreneurial intentions improvements/applications propose the future vision of entrepreneurship education and direction for entrepreneurship education.

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