

The Effects of University Students Entrepreneurial Education on Startup Intentions

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Abstract

The purpose of this study is to empirically demonstrate the effect of entrepreneurship education on entrepreneurship results in university students. For this reason, the effect of entrepreneurship education on startup intentions was measured by a questionnaire survey of university students who took entrepreneurship education and related classes. The results showed that entrepreneurship education for university students has a significant effect on vocational values and entrepreneurial self-efficacy, and then significantly affects entrepreneurial intentions. For this purpose, a survey was conducted on 340 students who took entrepreneurship education or related classes among Chinese university students, and the structural relationship between entrepreneurship education, vocational values, self-efficacy, and startup intentions was empirically verified. The results of this study are summarized as follows. First, entrepreneurship education for college students had a significant effect on job value. Second, the start-up education for college students had a significant effect on the self-efficacy of the start-up. Third, job value had a significant effect on entrepreneurial self-efficacy. Fourth, job value had a significant effect on entrepreneurial intention. Finally, entrepreneurial self-efficacy had a significant effect on entrepreneurial intention.

Keywords: Entrepreneurship education, University students, Startup intentions

1. Introduction

Recently, the government has prepared various measures and policies to revitalize entrepreneurship education in universities about the training of young entrepreneurs. For students who are potential founders to continue their entrepreneurial intention and achieve practical entrepreneurship, it is important to participate in continuous and systematic entrepreneurial support programs and to acquire organic networking among universities, local governments, private organizations, companies, entrepreneurs, and graduates who have started their businesses. To realize this, it is necessary to increase the participation of start-up support programs related to entrepreneurship and provide various domestic and foreign information related to start-ups to students.

Business start-up self-efficacy is attracting attention as an important factor in the decision-making of university students [1]. The choice of occupation considering such view of occupational value is the main way to achieve the combination of individual value and organizational value [2]. Therefore, this study will suggest job value as one of the leading

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factors of a successful start-up, and it is expected that students show a difference in the willingness to start-up according to what job value students have.

To prove this issue, this study aims to conduct an empirical study on Chinese university students, and through the results of the study, expand the area of existing studies in a theoretical aspect by verifying the necessity of establishing the job value and self-efficacy of the students. Furthermore, this study aims to offer a guideline for entrepreneurship education.

2. Literature review and research hypothesis

2.1. The relationship between entrepreneurship and vocational value

Entrepreneurship education is defined as teaching the qualities and skills that human beings developing new and innovative businesses should have [3]. The job value is a comprehensive concept that encompasses what kind of thoughts and attitudes an individual has about or what value they give to any occupation or occupational activity, which means the preference and value of an individual for occupational activity as a generalized concept, not related to a specific occupation.

Therefore, this study sets the following hypotheses to verify the hypothesis based on the above discussion, assuming that the constituent factors of entrepreneurship education will have a significant effect on the vocational value of the students who have taken the education.

Hypothesis 1: Entrepreneurship education will have a positive effect on job value.

2.2. The relationship between entrepreneurship and self-efficacy

Jung Kyung-hee and Sung Chang-soo [4] studied what kind of influence self-efficacy has made in their preparation of career by dividing subjects into two groups. As a result of the study, both the group that completed the start-up education and the group that did not complete the education had positive effects. Zhao et al. [5] proved that entrepreneurship education has a significant effect on self-efficacy in starting a business, and argued that there should be practical education to experience entrepreneurship in advance to increase the efficacy. Based on the above discussion, the following hypotheses were set up in this study.

Hypothesis 2: Entrepreneurship education will have a positive effect on entrepreneurial self-efficacy.

2.3. The relationship between job value and self-efficacy

Kim Sun-mi and Jeong Deok-im [6] identified the characteristics of career self-efficacy and job value of students in rural areas. The results of this study showed that female students had higher career self-efficacy and higher job value than male students. Also, according to the other study, which compared elementary school students' self-efficacy and career awareness, it was confirmed that there was a significant correlation between job value (attitude and value for work) and self-efficacy ($p < .01$). Based on the above discussion, the following hypotheses were set up in this study.

Hypothesis 3: The job value will have a positive effect on entrepreneurial self-efficacy.

2.4. The relationship between job value and willingness to start a business

The reason why the job value is important is that when everyone's values are formed once, they do not change easily, and they remain for a long time and affect the direction of behavior related to occupation [7]. The job value is composed of the domain of internal value and

external value, and it is argued that these domains affect willingness to start a business [8]. Based on the above discussion, the following hypotheses were set up in this study.

Hypothesis 4: The job value will have a positive effect on the willingness to start a business.

2.5. The relationship between self-efficacy and willingness to start a business

Bandura [9] considered the expectation of his ability-expectation of self-efficacy- the most important of functions that make an effect on the human being. The entrepreneurs with high self-efficacy have the belief that they can cope with various risks and challenges skillfully, and have greater confidence in handling them than those with low self-efficacy, so they can develop their willingness to start a business [10][11]. Based on the scenario model of entrepreneurial intention, suggested that entrepreneurial self-efficacy directly affects entrepreneurial intention. Based on the above discussion, the following hypotheses were set up in this study.

Hypothesis 5: Entrepreneurial self-efficacy will have a positive effect on willingness to start a business.

3. Data collection and analysis

A survey was conducted over about four months from January 10, 2019, to May 10, 2019. The subjects of this study were college students who had been educated in China and were mainly living in Shandong, Beijing, Shanghai, Jiangsu, Guangdong, and Liaoning. Among 360 questionnaires, this study was conducted by using 340 questionnaires except for 20 questionnaires with abnormalities such as insincere responses. The data collected through this survey were analyzed using SPSS 25.0 and AMOS 25.0, which are statistical analysis package programs.

4. Result of analysis

4.1. Sample characteristic

The results of the analysis of demographic characteristics of the respondents for this study were summarized. First, the regional distribution status was analyzed as 43.4% in Shandong Province (148), 30.5% (104 in Beijing City), 9.5% (32) in Shanghai City, 5.4% (18 in Jiangsu Province), 5.1% (17) in Guangdong Province, 4.1% (14 in Liaoning Province), and 1.9% (6 in (Tianjin City, Sichuan City, Heilongjiang Province and Henan Province) Next, Beijing and Shanghai were analyzed as the next. Second, the gender status of the respondents was 57.6% (196 men) and 42.4% (144 women) among the total 340 respondents, indicating that the proportion of men was higher. Third, the status of the grade was analyzed as the highest in the fourth grade, with 6.5% (22 students) for freshmen, 10.3% (35 students) for sophomore, 14.1% (48 students) for junior, and 69.1% (235 students) for senior. Fourth, in the status of majors, 35.6% (121) in the natural science-engineering field, 22.4% (76) in the humanities-social field, 16.5% (56) in the arts and physical education field, 11.2% (38) in the education field, and 14.4% (49) in the other fields (medical health, design, etc.), and the result showed that there were many respondents in the order of natural science-engineering and humanities-social studies. Fifth, 30.3% (103 people) said they had experience in start-up-business activities and 69.7% (237 people) said they did not.

4.2. Reliability of measurement variables and validity analysis

4.2.1. Reliability analysis and exploratory factor analysis

Reliability analysis and exploratory factor analysis were conducted to verify the reliability and validity of each constituent such as entrepreneurship education, job value, and entrepreneurial self-efficacy set in this study. First, reliability analysis was conducted using Cronbach's coefficient, which is a method to confirm the internal consistency of each research unit, and variables with a total correlation value of .4 or more were used for analysis. Also, to verify the validity of the concept of composition of the measurement items of this study, the main component factor extraction and the factor analysis by the rotation of Varimax, which is an orthogonal rotation method, were conducted.

As a result of exploratory factor analysis for validity verification, four factors were derived from entrepreneurship education and 74.86% of the total variance was explained. Second, the result of factor analysis on the job value showed that it was derived into two factors and explained 74.86% of the total variance. Third, as a result of factor analysis on entrepreneurial self-efficacy, three factors explained 69.127% of the total variance. Fourth, the analysis results of the entrepreneurial intentions showed that two factors explained 77.314% of the total. The results of this analysis show that the sample fit of the Spherical Test KMO, Kaiser-Meyer-Olkin) and the Spherical Test of Bartlett are all satisfying the standard value. Also, the reliability analysis of each factor showed that the Cronbach' α value, which shows internal consistency, was more than .7 and overall reliability was secured.

4.2.2. Confirmatory factor analysis

In this study, confirmatory factor analysis was conducted to test the single dimension of each measurement item using multi-item. In this study, the representative value (average value) of theoretical variables was used, and the covariance relation of the error term of the measurement item was also scaled based on the covariance correction index of 10 or more. The results of confirmatory factor analysis are as follows.

The final confirmatory factor analysis results on entrepreneurship education, job value, entrepreneurship self-efficacy, and willingness to start a business are as follows: $\chi^2=61.608(p=.004)$, RMR=.019, GFI=.968, AGFI=.940, NFI=.965, CFI=.984, RMSEA=.047, etc. It was found that all the confirmatory factor analyses satisfied the free commended value. The Composite Reliability value (CR) was more than 0.7 recommended value and the value of the Average Variance Extracted (AVE) was more than 0.5 recommended value.

4.2.3. Correlation analysis

To verify the validity of discrimination between each factor whose concentration validity was verified by the confirmatory factor analysis results, correlation analysis between each factor was conducted. For the correlation analysis between variables, AMOS analysis, which has been most widely used for correlation or covariance calculation between variables, was used as the correlation coefficient. As seen in the analysis table, the correlation coefficient value is not found to be large compared to the square root value of the diagonal variance extraction index (AVE) value. So, it can be seen that the discrimination validity is secured.

4.3. Results of the research hypothesis

This study is to understand the causal relationship between entrepreneurship education, job values, entrepreneurship self-efficacy, and willingness to start a business in entrepreneurship education. The results of verifying the overall structural model between each variable and the hypothesis verification result are as follows:

As a result of examining the verification results of the research hypothesis, hypothesis 1 about the effect of entrepreneurship education on job value was verified. As a result, the standardization coefficient was .518, and the t value was 5.888 ($P=.000$), which was statistically significant at the significance level .01. So, hypothesis 1 was adopted. Also, the path coefficient value was positive (+), and it was confirmed that the positive evaluation of entrepreneurship education increased the job value.

As a result of verification of Hypothesis 2 to find out how entrepreneurship education affects entrepreneurship self-efficacy, the standardization coefficient was .737, and the t value was 10.300 ($P=.000$), which was statistically significant at the significance level .01. Besides, the path coefficient value was positive (+), and it was confirmed that the favorable evaluation of entrepreneurship education had a positive effect on entrepreneurship self-efficacy of entrepreneurship education.

As a result of verifying hypothesis 3 on the effect of job value on entrepreneurial self-efficacy, the standardization coefficient was .178, and the t value was 2.511 ($P=.012$), which was statistically significant at the significance level of .05. Also, the path coefficient value was positive (+), and the better the job value, the higher the entrepreneurial self-efficacy.

As a result of verifying hypothesis 4 about the effect of job value on willingness to start a business, the standardization coefficient was .224, and the t value was 2.385 ($P=.017$), which was statistically significant at the significance level .05, and hypothesis 4 was also adopted. Besides, the path coefficient value was positive (+), and the higher the level of job value, the higher the willingness to start a business.

Finally, as a result of verifying hypothesis 5 to find out how entrepreneurial self-efficacy affects willingness to start a business, the standardization coefficient was .557, and the t value was 6.900 ($P=.000$), which was statistically significant at the significance level .01, and the hypothesis 5 was adopted. Also, the path coefficient value was positive (+), which confirmed that entrepreneurial self-efficacy had a positive effect on the willingness to start a business.

5. Conclusion

As a result, the following consequences were derived through theoretical research and empirical analysis. First, the results of previous studies have reported that entrepreneurship education raises the value of the job, but does not match the relationship between entrepreneurship education and willingness to start a business. The results of this study showed that entrepreneurship education had a significant positive effect on job value and willingness to start a business.

Second, there were many studies on the educational effect and satisfaction in understanding entrepreneurial activities. However, in previous studies, there was a limit to generalizing the samples mainly in the Western region. This study has academic significance in that it used the data collected from Chinese provinces called 'sheng and shi' to identify these relationships and to identify the mediating effects of job value and entrepreneurial self-efficacy.

Therefore, it is important to teach entrepreneurship and in-house entrepreneurship to revitalize start-ups despite the global economic crisis, but it is also important to create competent instructors and high-quality educational content.

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