



# COMPARISON ANALYSIS OF THE FACTORS INFLUENCING ACADEMIC ENTREPRENEURIAL BEHAVIOR AMONG THE STUDENTS OF SHAHID RAJAEI TEACHER TRAINING UNIVERSITY AND FARHANGIYAN UNIVERSITY OF TEHRAN

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## ABSTRACT

This study aimed to analyze the factors which influence academic entrepreneurial among the students of Shahid Rajaee Teacher Training University and Farhangiyan University of Tehran. The study is a descriptive and applied research. The population included all students of Shahid Rajaee University and Tehran Farhangiyan University (N=6416). 400 students were selected through random cluster sampling. Linan and Chen (2009) questionnaire, Zhang and Bartel (2010) questionnaire, Wang, khow and souw (2009) questionnaire, and Knight, Helkam and Saympson (1994) questionnaire were used to collect the data. The results showed that all variables of this study (subjective norm, risk taking, self-efficacy, creativity and intrinsic motivation) have direct and significant effects on entrepreneurial purpose.

**Key words:** Entrepreneurial intention, students, creativity, intrinsic motivation

## INTRODUCTION

The unemployment crisis as a complexity impacts all economic, cultural and social aspects of community and sometimes has irreparable effects. Although the cause and solution of this problem isn't clear for us, but economic problems and at the top of it, unemployment has an important role in creation and increasing of other problems. Most of the policies to solve this problem were faced with serious challenges. In other words, stability and decline of some governments depend on solving the unemployment crisis<sup>1</sup>. According to statistics, it is estimated that the unemployment rate reached from 9.1 % in 1996 to 14.2% in 2001 (Iran Organization of Management and Programing). On the other hand, it is estimated that about 2 million people are unemployed in Iran that 30% of them are university graduates. Also much evidence shows that the number of students in the last 20 years has impressively increased, but the quality of

students and their specialized compatibility with the needs of society are in ambiguity<sup>2</sup>. In this regard, the employment of graduates is one of the problems that always attract the attention of educational planners in different countries and also the educational system in Iran. Todays, the developed and developing countries suggest entrepreneurship as a way to overcome such problems, in other words, entrepreneurship solves these challenges and removes threats<sup>3</sup>. Entrepreneurship contains a source of flexibility, innovation, job creation and considers interesting opportunity of professional development of individuals. Serious attention to entrepreneurship will lead to some outcomes such as an increase in of job opportunities, competition, improvement of productivity and increase of economic-social comfort. In fact, experimental research in European and American countries show the positive relationship between entrepreneurial activities and economic outcomes such as a development of

economic and innovation<sup>4</sup>. In the World Higher Education Outlook for 21 Century, UNESCO (2004) identifies the new universities as places where entrepreneurial capabilities of students develop so as to become job creators. In other words, nowadays mission of higher education is not only the transfer of knowledge or mental development, but also a kind of education that enables the individuals in job-creation<sup>5</sup>. Unfortunately, most of the entrepreneurial studies pay attention to the starting stage of a business and ignore the decision stage which is more evident in entrepreneurship training programs in higher education. In other words, it is important to see what factors lead to one's selection to start a business over other job options in the decision stage (entrepreneurial intention)<sup>6</sup>. According to above discussion, so the main question is whether there is difference between entrepreneurial intention of Shahid Rajaee Teacher Training University students and that of Tehran Farhangian University students?

## LITERATURE REVIEW

Ardakani and colleagues (2010), in their paper, examined the relationship between creativity and entrepreneurial behavior and indicated that there is a significant relationship between one's creativity and entrepreneurial features and behavior. In other words, they consider creativity as one of the basics of entrepreneurial behavior<sup>7</sup>. Barani and Zarafshani (2009) examined the effect of attitude towards entrepreneurship, population norms, self-efficacy belief in pretending entrepreneurial intentions among the students of rural development and management in Payam-E-Noor University in Kermanshah<sup>8</sup>. The results of the correlation matrix show that there is a positive and significant relationship between the variables (attitude towards entrepreneurship, population norms and self-efficacy belief). Also there is a positive and significant relationship between entrepreneurship attitude and self-efficacy and entrepreneurship intention. The results of stepwise multiple regression indicated that self-efficacy variable explain 30% of variances in entrepreneurial intention. Overall, the findings indicated weak entrepreneurial intention among the students of rural development and management<sup>9</sup>. Fini (2010) in a thesis entitled (job paths, ratios of organization and entrepreneurial intention) analyzed the relationship between risk-taking and entrepreneurial intention. In this study, the factors

affecting entrepreneurial intention were divided into individuals' psychological characteristics like risk-taking and entrepreneurial self-efficacy and individual skills such as management skills and technique skills and environmental support like government support<sup>10</sup>. The sample consisted of 52 entrepreneurs in the public sector and 52 entrepreneurs in private sector. Keruzic and Bakotic (2010) in an article entitled "concept of students entrepreneurial intention" examined the relationship between entrepreneurial features such as risk-taking and attitude towards entrepreneurship among students. The aim of this study was to determine the students' readiness to enter the market and their risk-taking for doing entrepreneurial activities<sup>11</sup>. Linan and Santon (2010) in a thesis called "entrepreneurial intention and socio-cognitive capacity and culture: a case of study for Spain and Taiwan" examined the relationship between perceived desirability and perceived possibility of entrepreneurial intention. The study used Shapiro entrepreneurial event method. The studied variables were the same as Shapiro model. The results showed that perceived desirability and perceived possibility had positive and direct effects on entrepreneurial intention<sup>12</sup>.

### Hypotheses

1. Subjective norms have direct and significant effect on intrinsic motivation and entrepreneurial intention.
2. Risk-taking has direct and significant effect on creativity and intrinsic motivation.
3. Self-efficacy has a direct and significant effect on creativity, intrinsic motivation and entrepreneurial intention.
4. Creativity has a direct and significant effect on entrepreneurial intention.
5. Intrinsic motivation has a direct and significant effect on entrepreneurial intention.

### Methodology

This paper is an applied research and uses a descriptive and correlation method. The population included all students of Shahid Rajaee Teacher Training University (N= 6186) and Tehran Farhangian University (N= 250). Based on Kockran formula and using random cluster sampling, the sample included 250 students from Shahid Rajaee Teacher Training University and 150 students from Farhangian University of Tehran. Data collection was done through using the following questionnaires:

a) Linan and Chen (2009) questionnaire with 8 items was used for evaluating entrepreneurial intention variable. The scoring was based on the Lickert scale with 5 choices.

b) For evaluating student's individual creativity, Zhang and Bartel (2010) questionnaire with 11 items, adopted from Zhu and Borj (2009), was used. The scoring was based on the Lickert scale with 5 choices.

c) Wang, khow and souw (2009) questionnaire with 6 items was used for evaluating student's intrinsic motivation. The scoring was based on the Lickert scale with 5 choices.

d) Knight, Helkam and Saympson (1994) questionnaire with 6 items was used for evaluating student's risk-taking. The scoring was based on the Lickert scale with 5 choices.

e) Mailer (2008) questionnaire with 5 items was used for evaluating subjective norms variable. The scoring was based on the Lickert scale with 5 choices.

f) Showk and Bratinow (2008) questionnaire with 17 items was used for evaluating entrepreneurial self-efficacy variable. The scoring was based on the Lickert scale with 5 choices.

Analysis of the data was done by using inferential statistics.

**Table 1**  
*correlation matrix of variables*

Variables	1	2	3	4	5	6
<b>Creativity</b>	1					
<b>Subjective norm</b>	0.15*	1				
<b>Risk-taking</b>	0.14**	0.20*	1			
<b>Intrinsic motivation</b>	0.19**	0.31**	0.23**	1		
<b>Self-efficacy</b>	0.17**	0.27**	0.21**	0.18**	1	
<b>Entrepreneurial intention</b>	0.21**	0.27**	0.29**	0.30**	0.36**	1

Table 1 shows the strongest correlation between entrepreneurial self-efficacy and entrepreneurial intention (0.36) which is significant at the level of 0.01 and the weakest correlation between student's creativity and entrepreneurial intention (0.21) which is significant at the level of 0.01.

### Path analysis

To analyze the hypotheses, path analysis method was used.

**Table 2**  
*estimates of direct effect coefficients*

Estimate	Shahid Rajaee Teacher Training University		Farhangian University	
Variables	Standard Parameter	t	Standard Parameter	t
<b>The effect of subjective norm on:</b>				
Intrinsic motivation	0.10*	2.84	0.24**	3.1
Entrepreneurial intention	0.22**	3.25	0.06	1.27
<b>The effect of risk-taking on:</b>				
Student's creativity	0.25**	3.24	0.23**	3.36
Intrinsic motivation	0.21	3.11	0.33**	5.86
<b>The effect of self-efficacy on:</b>				
Student's creativity	0.17**	3.01	0.08*	2.11
Intrinsic motivation	0.10*	2.26	0.09	1.42
Entrepreneurial intention	0.28**	4.13	0.25**	3.96
<b>The effect of creativity on:</b>				
Entrepreneurial intention	0.31**	5.1	0.25**	4.66
<b>The effect of intrinsic motivation on:</b>				
Entrepreneurial intention	0.26**	4.25	0.28**	4.33

**P<0.05 \*\* P<0.01**

### **Hypothesis 1**

#### **Subjective norm has a direct and positive effect on intrinsic motivation and entrepreneurial intention**

According to table 2 a direct effect of subjective norm on intrinsic motivation among the students of Shahid Rajaee Teacher Training University is 0.10 and according to the T value (2.84) is significant at the level of 0.05. Also direct effect of subjective norm on entrepreneurial intention is 0.22 and according the T value (3.25) is significant at the level of 0.01. So, the first hypothesis in relation to the students of Shahid Rajaee Teacher Training University is confirmed. Also as table 2 shows, the direct effect of subjective norm on intrinsic motivation among the student of Farhangiyan University of Tehran is 0.24 and according the T value (3.10) is significant at the level of 0.05. Direct effect of subjective norm on entrepreneurial intention is equal 0.06 and according the T value (1.27) is not significant. So the first hypothesis in relation to the student of Farhangiyan University of Tehran is not confirmed.

### **Hypothesis 2**

#### **Risk-taking has a direct and positive effect on creativity and intrinsic motivation**

According to the table2, the direct effect of risk-taking on creativity among the students of Shahid Rajaee Teacher Training University is 0.25 and according to the T value (3.24) is significant at the level of 0.01. Also direct effect of risk-taking on intrinsic motivation is 0.21 and according to the T value (3.11) is significant at the level of 0.01. So the second hypothesis in relation to the students of Shahid Rajaee Teacher Training University is confirmed. Also according the table2, direct effect of risk-taking on creativity among the students of Farhangiyan University of Tehran is 0.23 and according to the T value (3.36) is significant at the level of 0.01.

### **Hypothesis 3**

#### **Self-efficacy has a direct and positive effect on intrinsic motivation and entrepreneurial intention**

According to the table2, direct effect of the self-efficacy on creativity among the students of Shahid Rajaee Teacher Training University is 0.17 and according to the T value (3.01) is significant at the level of 0.01. Also direct effect of self-efficacy on entrepreneurial intention is 0.28 and according to the T value (4.13) is significant at the level of 0.01. So the third hypothesis in relation to the students of Shahid Rajaee Teacher Training University is

confirmed. Also according the table2, direct effect of self-efficacy on creativity among the students of Farhangiyan University of Tehran is 0.08 and according to the T value (2.11) is significant at the level of 0.05. So a direct effect of self-efficacy on intrinsic motivation is 0.09 and according to the T value (1.42) is not significant. Eventually, the direct effect of the self-efficacy on entrepreneurial intention is 0.25 and according to the T value (3.96) is significant at the level of 0.01. So the third hypothesis regarding the direct effect of self-efficacy on motivation is not confirmed among the students of Farhangiyan University of Tehran.

### **Hypothesis 4**

#### **Creativity has a direct and positive effect on entrepreneurship**

According to the table2, the direct effect of the creativity on entrepreneurial intention among the students of Shahid Rajaee Teacher Training University is 0.31 and according to the T value (5.10) is significant at the level of 0.01. So the fourth hypothesis is confirmed among the students of Shahid Rajaee Teacher Training University. Also according to the table2, the direct effect of creativity on entrepreneurial intention among the students of Farhangiyan University of Tehran is 0.25 and according to the T value (4.66) is significant at the level of 0.01. So the fourth hypothesis is confirmed among the students of Farhangiyan University of Tehran.

### **Hypothesis 5**

#### **Intrinsic motivation has a direct and positive effect on entrepreneurial intention**

According to the table2, the direct effect of the intrinsic motivation on entrepreneurial intention among the students of Shahid Rajaee Teacher Training University is 0.26 and according to the T value (4.25) is significant at the level of 0.01. So the fifth hypothesis is confirmed among the students of Shahid Rajaee Teacher Training University. Also according to the table2, the direct effect of intrinsic motivation on entrepreneurial intention among the students of Farhangiyan University of Tehran is 0.28 and according to the T value (4.33) is significant at the level of 0.01. So the fifth hypothesis is confirmed among the students of Farhangiyan University of Tehran.

## **CONCLUSION**

According to results of the analysis of data, there is a direct and significant relationship between subjective norms and entrepreneurial intention

among the students of Shahid Rajaee Teacher Training University and there is not such a significant relationship among students of Tehran Farhangiyan University. In explaining this hypothesis it can be stated that students who want to start entrepreneurial activities in university, should pay attention to the university administers' ideas and the other students' opinions about how to start academic entrepreneurial business and to what extend their academic entrepreneurial activities are attractive and desirable. When students believe that administers and other students believe in their entrepreneurial behavior, positive attitude about entrepreneurial activities occur in student and this will eventually lead to academic entrepreneurial behavior. The results show that there is a direct and significant relationship between subjective norms and intrinsic motivation among students of Shahid Rajaee Teacher Training University and Farhangiyan University of Tehran. Regarding this hypothesis it can be stated that motivation of people towards entrepreneurship is largely connected with the subjective norms. When people believe that their parents, friends, relatives and business partners believe that they do entrepreneurial behavior, the positive attitude will appear. In other words, important people can stimulate the person to do entrepreneurial behavior and this positive attitude will ultimately lead to entrepreneurial behavior. As a result, the person starts entrepreneurial business strongly, even if he does not desire to do entrepreneurial activities. The findings indicated that there is a direct and positive relationship between creativity and intrinsic motivation among the students of Shahid Rajaee Teacher Training University and Farhangiyan University of Tehran. People based on risk-taking were divide into 3 groups: risk-averse, risk-natural and risk-taking. In this study, risk means uncertain result of the specified (act and action) in future and also means fear. Study indicated that people who pay attention to their activities and experience more than the results and their activities and desire to do creativity, they can tolerate risk. These people, because of their desire to experience alternation and success and use serious methods in their activities, they tend to have creativity in their activities and this desire causes individual intrinsic motivation. Also, they have positive mood and feel satisfaction and happiness because they don't fear of results and they have curiosity spirit. The findings show that there is a direct and significant relationship between self-efficacy and creativity among the students of Shahid Rajaee Teacher Training University and Farhangiyan University of Tehran. In explaining

these hypotheses it can be stated that, in general, self-efficacy means that individual believe in their own abilities in doing their duties and responsibilities. Self-efficacy play important role in human behavior such as selecting the purpose, reaching the expected results, performing the purpose and the level of their resistances and perseverance and effort. Administers of university inform the students about the level of their success and can help the students feel self-efficacy increasingly. One way is breaking down large tasks and complex skills into smaller components that can be done easily and then give only part of them to students at any time. According to analysis of data, there is a direct and significant relationship between entrepreneurial self-efficacy and attitude towards entrepreneurship among the students of Shahid Rajaee Teacher Training University, but this hypothesis is not significant among the students of Farhangiyan University of Tehran. It could be stated that people try to do things that feel they are competent in them and avoid those in which they feel incompetent. Uncertainly, the more entrepreneurial self-efficacy (means individual's awareness of his/her own entrepreneurial behavior) causes more positive attitude towards entrepreneurial behavior and in consequence it is expected that such a person becomes entrepreneur. The analysis of data shows that there is a direct and significant relationship between entrepreneurial self-efficacy and entrepreneurial intention among the students of Shahid Rajaee Teacher Training University. In explaining this hypothesis it can be stated that if students believe that they have enough self-efficacy to start academic entrepreneurial activities, those activities are possible and students do not spare any effort to achieve entrepreneurial intention, so the students start academic entrepreneurial activities eagerly. In fact, the students try to do the things that feel competent and self-efficacious about them, it means that, the more self-efficacy belief causes more positive attitudes toward the academic entrepreneurial activities. The results indicated that there is a direct and significant relationship between creativity and entrepreneurial intention among the students of Shahid Rajaee Teacher Training University and the students of Farhangiyan University of Tehran. Entrepreneurship has been always related to creativity and innovation in a way that Dracker believes that creativity and entrepreneurship are so interdependent that it can be said that entrepreneurship has no result without creativity. Administers and universities can use entrepreneurs achievement towards organizations

interests, so administers instead of limiting, should provide the stage to reach their talent and support creator and innovator morally and materially to achieve the desire results. The results of some research show that entrepreneurs select a new business or establish institutes not only for economic reasons, but also often because there is an innovation and creativity in the new business. The results show that there is a direct and significant relationship between intrinsic motivation and entrepreneurship and entrepreneurial intention among the students of Shahid Rajaee Teacher Training University. In explaining the positive relationship between motivation towards entrepreneurship and entrepreneurial intention it should be noted that people who receive a favorable entrepreneurial behavior and have positive motivation towards it are those who can perceive opportunities and are capable to recognize entrepreneurial opportunities where others can't. Sure, they can recognize entrepreneurial

opportunities and they receive it as is desirable. When people have positive motivation towards entrepreneurial activities, they perceive entrepreneurship as a possible activity uncertainly. So, it is more likely that they create stable entrepreneurial intention and start entrepreneurial business. It also can be argued that motivation is the most important factor in increasing the ability. Persons, who have strong motivation constantly think about the result. They never bend back in facing problems and nothing hinders their success. In this process, persons are motivated from beginning to the end and if in the future, face a critical situation and the managers explain the facts to the stuff, these persons (motivated) move as a huge mass and encourage all people to change the situation and to move towards ideal situation. These persons are hidden treasures that help the organization in difficulty. At a glance, the motivation could turn gray to fire.

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