

Explanation of Relationships between Biographical Characteristics and Entrepreneurship Spirit of Students

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Abstract

Three major causes of the importance of entrepreneurship are making wealth, developing technology and creating productive employment. It is generally believed that a revolution is needed for entrepreneurship to take place in societies nowadays. Thus, the present study aims at investigation of the biographical characteristics and explanation of its relation to entrepreneurial spirit at Mazandaran university students. The data collection instrument was a related questionnaire with the reliability level of 0.90, and the collected data related to the examined variables were analyzed by using T-Student and ANOVA Tests. The results explained and determined that, except age, other biographical characteristics including gender, marital status, employment, birth arrangement, parents' education level, did not have any meaningful relationship with the entrepreneurial spirit. Finally, it is the presented summary of implications for managers such as suggestions on how the managers and authorities can improve the entrepreneurial spirit among students, as well as directions for further researches.

Keywords

Biographical characteristics, entrepreneurial spirit, students.

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Introduction

Three major causes of the importance of entrepreneurship are making wealth, developing technology, and creating productive occupation. One of the most important advantages of establishing entrepreneurial enterprises is creating productive occupation. According to a management principle if someone is directly appointed to productive occupation, he will create occupation for at least three other people indirectly. Creating productive occupation needs recognition, creation and utilization of entrepreneurial opportunities and existing occupation in the society and it is one of the major reasons for considering entrepreneurship. Entrepreneurship is the process of producing an employment and making profit from valuable combination of sources. The word entrepreneur is the person who undertakes to organize, run and accept the risks of an economic activity (Kuratko & Hadgetts, 2001, 163). Entrepreneurial spirit is a body of psychological characteristics such as risk taking, creativity, innovation, internal control, independence, progress motivation and so on (Kiggundo, 2002; Tajeddini, 2006). Entrepreneurship is the result of encounter of entrepreneur's personal characteristics with the environment where they grow up (Postigo, 2002). Entrepreneurs play an important role in the movement of economic development and are considered as the sources of the great evolution in fields of industry, production and services at organizations (Duane, 2000, 236), and biographical specifications such as age, gender, marital status, social status, education, experience and other traits (Kiggundo, 2002) have an important role on their entrepreneurial spirit.

According to those points mentioned above, the goal of this research is investigating the relationships between biographic characteristics consisting of gender, marital status, employment, birth arrangement, age, parents' education and entrepreneurial spirit. Therefore, the specific question of the research is that, are there any meaningful relationships between biographic characteristics and entrepreneurial spirit?

Background and Hypothesis

Entrepreneurship is the stimulus engine of economic development and creating occupation and reforming society (Gurol & Astan, 2006). The entrepreneurs are persons, group or people who establish and run new job so that they can cause occupation at least for one person (Kirkwood, 2007). Entrepreneurs establish and run enterprise in order to achieve success and performance improvement (growth, profit etc) in competitive situation (Hansemark, 1998; McClelland, 1961, 1987; Utsch & Rauch, 2000; Murray, 1938). It is a unique characteristic that

stimulates him toward achieving success (Atkinson & Raynor, 1974; Grote & James, 1991; McClelland, 1961). The entrepreneurship is related to the idea of new enterprise that may cause some changes in the nature of market. It involves seeking opportunity and ability to recognize the gap of market. Entrepreneurship is an approach that emphasizes on innovation of market, products, and risky projects, and tends to be pioneer in innovation (Miller, 1983). Innovation as a component of entrepreneurial spirit is an unavoidable necessity for each organization. Thus, in order to achieve success in their activities and obtain constant competitive advantages through innovation, organizations must discover new opportunities (Tajeddini, 2006). Entrepreneurship is a stimulating power whose role is finding unused opportunity in market (Elenurm et al., 2007). Entrepreneurship is the process of entrepreneur's running large or small economic activity by his capital (Drucker, 1985). Risk-taking is an emphasized characteristic of entrepreneurial spirit (Cunningham & Lischeron, 1991; Ho & Koh, 1992; Morris & Trotter, 1990). Risk-taker is a person who tends to work in a condition of uncertain decision (Ho & Koh, 1992). From the entrepreneurship's point of view, entrepreneurs always seek risk (Agarwal & Prasad, 1998). They tend to use their sources in situations that failure chance is high. McClelland believes that entrepreneurs are distinguished by their self-confidence, ability to take logical risk, their examination of the environment and the tendency to have performance's feedback (McClelland, 1965). The entrepreneur's personal achievement can affect on his perception of risk and how he approaches risk management (Kliem and Ludin, 2000, 28).

So far, several studies have been done about entrepreneurial spirit, establishing entrepreneurial enterprises and their performance in various businesses (Banks, 1991; Reynolds, Miller, & Maki 1993; Aydalot, 1986) and effective factors on success and failure of entrepreneurship process (Buame, 1996; Trulsson, 1997; Mead & Leitdorm, 1998; King & McGrath, 1999; Frese, 2000). Even though some believe that entrepreneurship is inheritable (Levie, 1999) but all of these factors can be divided into three groups including biographical and psychological characteristics of entrepreneur, entrepreneurial enterprise and external environment (Kiggundo, 2002). Lerner & Haber (2000) have divided effective factors on entrepreneurial spirit and success of entrepreneurial enterprises into four groups: entrepreneur's psychological characteristics, government's financial and advisory support, environmental attractions of the place of enterprise, and variety of services. According to Wagner and Sternberg (2004) effective factors on entrepreneurial process and establishing new enterprise are three groups: macro and micro factors and

personal characteristics of entrepreneur, then concluded that each of them have related subordinate variables which influence on entrepreneurial process in regional, national and international levels. Personal characteristics of entrepreneur that affects on success or failure of entrepreneurial process can be divided into four groups including 1). Biographic characteristics consisting of: age (+), gender (+), marital status (+), social status (+), studies (+), experience (-) and race (+/-), 2). psychological characteristics consisting of: seeking success (+), risk-taking (+), self-confidence (+), being active (+), independence (+), acting strategic (+), 3). Job behavioral characteristics consisting of: being diligent (+), hardworking (+), acting strategic (+) and 4). Merits consisting of: technical skills (+), artistic (+), political (+), social (+), human relationships (+), trade talent (+), creativity and innovation (+), management duties (POSDCORB) (+). Each of these variables have positive (+), negative (-) or positive/negative (+/-) effect on success or failure of entrepreneurship process (Kiggundo, 2002). Entrepreneurship depends on the suitability of entrepreneur's personal characteristics such as self-knowledge, opportunities, independences in work, having human resources and social skills through evaluating and exploiting any opportunity and reaching success in market (Markman & Baron, 2003). There is a meaningful relationship between personal specifications including age, marital status and education level with entrepreneurship process (Nazem & Abasi, 2005, 92). Zali investigates effective factors on entrepreneurial process among university of Mazandaran students and concluded that nobody has personal entrepreneurial characteristics (Zali, 2006, 112). The most important causes for initiating entrepreneurial spirit are educational courses for creativity and innovation (Postigu, 2002). Entrepreneurial spirit will develop by education. Education is the most necessary need for people to know their potential talent in entrepreneurship. Entrepreneurship doesn't have any relation to work background, age and organizational capacity (Jahangiri et al., 2009, 125). Entrepreneurial spirit and biographic characteristics have positive relationship among agricultural students in University of Tehran (Hoseini et al., 2007, 87).

Researchers, examining the characteristics of biographic indicators such as education and age, affecting entrepreneurship and unemployment, also provide mixed results. Although the majority of the previous studies (Henley, 2005; Ritsilä & Tervo, 2002; Bergmann & Sternberg, 2007, Evans & Leighton, 1989; Cowling & Taylor, 2001; Wagner & Sternberg, 2004) showed a positive correlation between education and the establishment of new businesses, and people having

acquired higher education were regarded as more successful businessmen than other market participants; other studies obtained the opposite conclusion, stating that education does not correlate with the business start-up, because not all business areas (such as, agriculture and certain services, wholesale trade, manufacturing) require education.

The probability of being self-employed rises with age (Bergmann & Sternberg, 2007). The age of 26 to 40 can be considered as a period of freedom with regard to the choice of occupation (Ritsilä & Tervo, 2002). The average age (between 25 and 45 years of age) is most likely to get engaged in entrepreneurship, and these people often become successful business builders (Henley, 2005; Lin et al., 2000). On the other hand, people of the average age already have family, have reached the heights of occupation, which may reduce the opportunities to start business from "zero" and seek recognition again. Venerable elderly people are less likely to take risks and start-ups, but the self-employment can be a perfect alternative in retirement, because of the more efficient use of accumulated experience and expertise, supported by the skills and financial stability. Young people, although willing to take greater risks in business, unfortunately, do not have financial resources and business-specific experience. Analyzing gender differences, researchers' (Remeikiene & Startiene, 2008; Rakauskiene, 2002; Grundey & Sarvutyte, 2007, Rosti & Chelli, 2005; Ritsilä & Tervo, 2002; Leoni & Falk, 2008; Williams, 2004; Henley, 2005; Lin et al., 2000; Wagner & Sternberg, 2004) opinion is the same: women are less likely to be entrepreneurs than men. Remeikiene and Startiene (2008) found that changes in biographic variables and varying scales of values are the main reasons that determine gender differences in business. The lower status of women still tends to be based on feminism and the theories of discrimination by scientists that explain the existence of the phenomenon within the historically formed stereotypes and the differences of male and female nature. Marriage is a significant boost in business, but it influences on both genders in different ways. For a woman marriage acts positively, if she intends to start business, while for men it acts negatively (Leoni & Falk, 2008).

Although Zimmer and Scarborough (1994) expressed that most of the entrepreneurs who start business are in their thirties and forties, many eminent researchers found that there is no boundary of age for their entrepreneurial desire. Age variation does not have any correlation to business success while starting a business. According to Staw (1991), age is not a crucial factor for starting any business. Through required training and homework, anyone can start a business. He also notes that in certain

cases, age will be related to venture success if it includes both chronological age and entrepreneurial age. This means that the older an entrepreneur is the more experiences he acquires in business.

Prior researches have shown that entrepreneurs are more likely to have higher levels of formal education than non-entrepreneurs (Dollinger 2003; Hisrich & Peters 2002; Zimmer & Scarborough, 2005). This is not really surprising when one considers the challenges that many entrepreneurs face in obtaining credit and financing for their businesses as well as the planning, managerial and technical knowledge and experience that are required for success (USA Census Bureau, 2007). According to above literature review, below hypothesis in this research will be investigated:

Hypothesis

Biographic characteristics including gender, marital status, employment, birth arrangement, age, parents' education level have meaningful relationships with entrepreneurial spirit of students.

Methodology

Sample

The population was university of Mazandaran students that consist of two thousands six hundred and one bachelor students in 2010. Among them three hundred and thirty five senior students are selected as a sample both stratified and simple random. They were being educated from different faculty in university of Mazandaran. Table 1 shows the descriptive statistics.

Data and Scale

There are seven independent variables concerning biographic characteristics that consist of gender, marital status, employment, birth arrangement, age, father's education level and mother's education level and a dependent variable entrepreneurial spirit that is measured by creativity and innovation (Hurley & Hult, 1998), risk taking, internal control, independence, progress motivation and optimism. Independent variables were measured by documents and dependent variables were measured using a questionnaire with fifteen standard questions. The designed questionnaire was distributed among the sample students and was explained to them. Then they were collected during second to fourth references. In order to confirm or reject the hypothesis, T-student, ANOVA and LSD tests were used.

Validity

In order to validate the research questionnaire related to entrepreneurial spirit, procedure of literature review and then extracting the components of measuring variables and the experts' ideas as well as a primary sample have been used. So, a designed questionnaire was offered to ten professors and experts in the form of a pretest (Hult & Ferrel, 1997; Bazargan et al., 1998, 166-171; Sarookhani, 2003, 139). Then after taking reformed opinions and modifying some cases of them, again it was offered to thirty one members of the population as a primary sample, and also according to this group's reforming opinions, it was possible to make sure that the questions are related to variables of the research.

Reliability

In order to determine the reliability of the measuring instrument, there are different ways that one of them is the measurement of its internal harmony (Conca et al., 2004). The internal consistency of measuring instrument can be determined by the coefficient of Cronbach alpha (Cronbach, 1951). This is a way that is applied in most researches (Peterson, 1994). Although the acceptable quantity for this coefficient must be at least 0.7, but 0.6 and even 0.55 are acceptable too (Van de Ven & Ferry, 1997; Nunnally, 1978). In this research the reliability of measuring instrument was 0.90.

Findings**Descriptive Statistical Data**

Table 1 shows statistical data of samples according to the information of the questionnaire.

Hypotheses Test

1. Relationship between independent variables (gender, marital status and employment) with entrepreneurial spirit

Table 2 shows the tests of determination and explanation of relationship between independent variables that consist of gender, marital status and employment, and dependent variable. T-student test was used because each three dependent variables have two categories, the pertinent codes were shown in Table 1 as well.

According to Table 2, and as showed in sig column, all of them are more than 0.05. Therefore, there are no relationships between independent variable consisting of gender, marital status and employment, and the dependent variable (entrepreneurial spirit) among the university of Mazandaran students. In other words, entrepreneurial spirit is the same on the basis of gender (male or female), being single or

married, being employed or unemployed.

Table 1. Statistical Data of Sample

Gender	Gender	Female	Male		Female=1	Male=2				Total
	Quantity	155	180		-					335
	Percentage	46%	54%		-					100%
Marital Status	Marital Status	Single	Married		Single=1	Married=2				Total
	Quantity	303	30		-					333
	Percentage	91%	9%		-					100%
Occupying Condition	Status	Employment	Unemployment		Employment=1	Unemployment=2				Total
	Quantity	18	312		-					330
	Percentage	5%	95%		-					100%
Birth Arrangement	Status	First 1	Second 2	Third 3	Fourth 4				-	Total
	Quantity	72	83	76	98				-	329
	Percentage	30%	23%	25%	22%				-	100%
Age	Ages	20	21	22	23	24	25	26	27	Total
	Quantity	12	99	90	46	29	9	6	5	296
	Percentage	4%	33%	30%	16%	10%	3%	2%	2%	100%
Father's Education	Education status	Illiterate 1	Primary level 2	Under Diploma 3	Diploma 4	Technician 5	BA/BS 6	MA/MS/PHD 7		Total
	Quantity	25	34	32	88	46	61	19		305
	Percentage	8%	11%	11%	29%	15%	20%	6%		100%
Mother's Education	Education status	Illiterate 1	Primary level 2	Under Diploma 3	Diploma 4	Technician 5	BA/BS 6	MA/MS/ PHD 7		Total
	Quantity	37	57	48	105	22	25	5		299
	Percentage	2%	8%	7%	35%	16%	19%	13%		100%

Table 2. Tests Results

		Dependent Variable = Entrepreneurial Spirit										
		T-student test is used for determining the equality of variable average of entrepreneurial spirit in two groups								Levene's test for equality of variances		
		T	df	sig	Mean difference	deviation	down differences	up differences	result	var	F	Sig
Independent Variables	Gender	0.54	285	0.59	0.74	0.136	-0.194	0.342	reject	Inequality	3.94	0.048
	Marital Status	0.362	325	0.718	0.085	0.24	-0.38	0.55	reject	Inequality	0.123	0.73
	Employment	1.36	19.58	0.19	0.36	0.27	-0.19	0.92	reject	Inequality	0.00	0.99

2. Relationship between birth arrangement, age, father's and mother's education and entrepreneurial spirit

Table 3 shows tests pertaining to determination and explanation of relationship between independent variables consisting of birth arrangement, age, father's education, mother's education and the dependent variable. The coding of each dependant variables is shown in Table 1. Thus, one way ANOVA test and other related sub-tests such as LSD test were used.

According to Table 3, and as shown in sig column, except the age variable, all of them are more than 0.05. Therefore, there is no relationship between three independent variables including birth arrangement, father's education, mother's education, and dependent variable, but there is a relationship between the independent variable that is student's age and dependent variable. In other words, age has a great influence on entrepreneurial spirit among the university of Mazandaran students.

Table 3. Tests Results

		Dependent Variable = Entrepreneurial spirit											
		One way ANOVA						Levene's test for equality of variances					
		Differences	Total squares	df	Average squares	F	sig	Results Test	Levene statistic	Variances	df ₁	df ₂	sig
Independent Variables	Birth Arrangement	Between groups	1	3	0.296			No existence of relation	0.499	Equal	3	319	0.68
		Within groups	467	319	1.46	0.2	0.9						
		Total	468	322	-								
	Age	Between groups	26	7	3.64			Existence of relation	0.996	Equal	7	282	0.43
		Within groups	404	282	1.43	2.54	0.02						
		Total	430	289	--								
	Father's	Between groups	13	6	2.25			No existence of relation	1.37	Equal	6	292	0.23
		Within groups	430	292	1.47	1.53	0.17						
		Total	443	298	-								
	Mother's	Between groups	14	6	2.26			No existence of relation	0.224	Equal	6	286	0.97
		Within groups	416	286	1.46	1.55	0.16						
		Total	430	292	-								

LSD test showed that entrepreneurial spirit of students was more varied in ages among 24-26 in comparison to the other ages. In other words, entrepreneurial spirit was equal among students in ages 20, 21, 22, 23 and 27, but it differed in ages 24, 25 and 26.

Discussion

Restrictions related to time and place about researches of human and social sciences generally, and entrepreneurship specifically, have caused the research findings being considerably different in spite of the existing similarities among the variables and utilized method. According to this, it is necessary to localize the result of studies regarding the time and place conditions, so that the applications of results can be authentic and true. In the explanation of a meaningful relationship between seven independent variables consisting of age, gender, marital status, occupying condition (employment or unemployment), birth arrangement (first, second, third or fourth child), mother's and father's education (illiterate, diploma, bachelor, master or PhD) and entrepreneurial spirit (dependent variable), it is distinguished that except age, the other six variables have no meaningful relation to entrepreneurial spirit. Results of this research is not consistent with Markman and Baron's opinion (2003) about the relation between entrepreneurship and the suitability of entrepreneur's characteristics, Nazem and Abasi's comment (2005) about the relation between individual's characteristics including education level, age, marital status and entrepreneurial spirit, Hosseini and Azizi's idea (2007) about the relation between entrepreneurial spirit and biographic characteristics of the university of Tehran students, and Kiggundo's conclusion (2002) about the relationship between age (+), gender (+), marital status (+), social status (+), education (+), experience (-), race(+/-). But it is consistent with Jahangiri and Kalantari's inference (2008) that says there is no relationship between occupation background, gender and social status and entrepreneurial spirit.

Conclusion

According to the importance of entrepreneurship and the entrepreneurs' excellent backgrounds in the development of many countries and in regard to the economic problems of Iran especially unemployment (in private or governmental sections), it is necessary and important to promote entrepreneurship concept and create circumstances for a culture supporting the entrepreneurship especially in universities and among students. In general, according to the literature review, the biographic characteristics of students in regard to their time and place of education will have effects on entrepreneurial spirit. While, results of this research reveal that biographic characteristics did not have meaningful influence on entrepreneurial spirit except on age. Then it can be concluded that managers of universities should pay attention to nurturing entrepreneurial spirit including creativity and innovation, risk taking,

internal control, independence, progress motivation and optimism.

As we see, every year, Ministry of Science and the other universities accept a lot of students regardless of market needs. On the other hand, the existent jobs in Iran are not enough for the enormous volume of graduates. So the lack of balance between the jobs and the applicants will face the society with a challenge. Therefore, the vital role of entrepreneurship and its power in economic developments in the society structure must be considered by high education experts. On the basis of this idea, one of the ways to develop entrepreneurial spirit among students is promoting and encouraging behaviors through education, support and recognizing the people who are capable of entrepreneurship.

The university educational programs for improving entrepreneurial spirit in students have to provide challenging goals for students, so that it can increase responsibilities and hardworking spirit among students. The students must be supported according to their practical activity and their entrepreneurial spirit pertinent to their fields of study. Also some considerations must be done in establishing entrepreneurship cores in universities, setup training periods, special educational and training courses for students and professors as well as paying attention to those who are successful entrepreneurs and introducing them are necessary.

In order to improve entrepreneurial spirit, we can take some actions in the real word through considering the psychological variants. Considering each of these psychological characteristics requires performing specific researches and projects such as:

- Explaining the ways of improving entrepreneurial spirit (psychological characteristics) among students in universities.
- Analyzing the content of educational and training courses of academic different disciplines for the sake of nurturing student's entrepreneurial spirit.

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تبیین رابطه بین ویژگی‌های زندگی‌نامه‌ای و روحیه کارآفرینی دانشجویان

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چکیده

سه دلیل اصلی مهم بودن موضوع کارآفرینی، خلق ثروت، توسعه تکنولوژی و ایجاد اشتغال مولد است. بنا بر اعتقادی، در جوامع امروزی لازم است انقلاب کارآفرینی روی دهد. بر این اساس هدف از اجرای تحقیق حاضر، بررسی ویژگی‌های زندگی‌نامه‌ای و تبیین رابطه آن با روحیه کارآفرینی دانشجویان دانشگاه مازندران می‌باشد. جامعه آماری ۲۶۰۱ نفر و نمونه آن ۳۳۵ نفر، جمع‌آوری داده‌های مورد نیاز با استفاده از ابزارهای مراجعه به اسناد و مدارک و پرسشنامه با ضریب پایایی ۰/۹۰ انجام شده و از آزمون‌های آماری تی استیودنت، تحلیل واریانس یک‌طرفه و آلفای کرونباخ استفاده شده است. یافته‌ها نشان داده‌اند که از هفت متغیر مرتبط با ویژگی‌های زندگی‌نامه‌ای دانشجویان (شامل جنس، تأهل، اشتغال، ترتیب تولد، سن، سطح تحصیلات پدر، و سطح تحصیلات مادر)، فقط متغیر «سن» با روحیه کارآفرینی دانشجویان رابطه معنی‌دار داشت. در پایان به مدیران و مسؤولان توصیه شده است که چگونه می‌توانند روحیه کارآفرینی دانشجویان را بهبود داده و پیشنهادهای نیز به منظور اجرای تحقیقات بیشتر ارایه شده است.

واژگان کلیدی

زندگی‌نامه، کارآفرینی، روحیه، دانشجویان.