COMPARING ENTREPRENEURIAL SPIRIT BETWEEN MALE AND FEMALE POSTGRADUATE STUDENTS  
(CASE STUDY: POSTGRADUATES OF PHYSICAL EDUCATION IN PNU)

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ABSTRACT

With the economic growth of developed countries, it is specified that the spirit of entrepreneurship and entrepreneurs in economic growth and job creation have a big role. The aim of this research is to compare the entrepreneurial spirit between male and female postgraduate students of physical education in Payam Noor University. All postgraduates in 2007 till 2012 were considered as the statistical universe. The stratified sampling method has been used for sampling and the sample size was calculated 203 ones based on the Cochran's Formula. A questionnaire was used to measure entrepreneurial spirit. The questionnaire examines factors of risk-taking, success-seeking, locus of control, creativity, tolerance for ambiguity and independence in people. Research findings showed that the average scores of variables such as creativity, locus of control, independence, risk-taking and tolerance for ambiguity in male graduates are more than female graduates. And there is a significant difference in variables of creative, independence and entrepreneurial spirit between male and female graduates.

KEYWORDS: entrepreneurship, entrepreneurial spirit, postgraduates.

INTRODUCTION

In present world's competitive and market-based economy with quick changes and rapid transition from an industrial society to an information society and changing national economy to the global economy, entrepreneurship is as the motor of development that can lead to economics' growth and development, increase productivity, create employment and social welfare (Russell et al, 2008). Changes in the social environment caused changing in knowledge system and as a result changing in university that is the basis of this system. Some people believe that the main origin of these change and changes in the Internet area is Digital and entrepreneurship (Aslani,
2007). Therefore, university's strategy must change and it should consider its main mission to educate people as entrepreneurs. In order to achieve the above objectives, university should be a systematic organization, result-oriented, subscription-oriented, and flexible and ultimately an entrepreneur. Each of the functions of education, research and academic culture needs to play its role in entrepreneurship development so that we expect entrepreneurship, creativity and innovation found from graduates (Saeedi Kia, 2003). In opinion of experts of economical, social and managerial science, the main source for job creation and elimination of actual unemployment is the existence of talented and creative workforce that put at its disposal a new combination of resources by drawing a new perspective on life. Existence of such a creative human resources herald a promising future and thus broads risk-taking culture, competition and innovation. Promotion and dissemination of entrepreneurial culture and supportive context for entrepreneurship and above all, people's education especially entrepreneurs graduates can be a trouble-shooter in all developing societies such as Iran (Vakil, 2010).

LITERATURE REVIEW

Entrepreneurship, innovation and risk-taking works have been considered as a motor fuel in a modern economy. Entrepreneurs play always a key role in community development. They have been on top of things, looking for opportunities and creativity is also considered a tool for their success (Aghajani et al, 2011). Entrepreneurs considered change as a normal phenomenon and always are searching for it, react to it and use it as an opportunity (Dunphy, 1994). New era is era of competition over resources and capital. Major industrial countries, set the enjoyment of capital and resources as the principles to their work, and started wheels of growth and development in light of their educated people and achieved innovation and creations. Access to these innovations that have revived economics of developed countries is related to Entrepreneurship (Shan & Collin, 2003). Entrepreneurship is the process of employment generating and profits-making of the combined resources. The term entrepreneur is defined as someone who is committed to a business venture of the organization, administration and duties (Kuratko & Hodgetts, 1989). Entrepreneurship is a motive force whose role is to find non-used opportunities in the market and to create a new balance in the market (Conca, 2004). Three important reasons for attention to entrepreneurship subject are wealth creation, technology development and productive occupation (Aghajani et al, 2011). McClelland (1987) believes that entrepreneurs are recognized by Characteristics such as self-confidence, ability to take a calculated risk, need to investigate environment and desire to have a feedback on their performance. Effective factors on Entrepreneurship and entrepreneurial success are divided into four groups: Personality and psychological characteristics of entrepreneurs, financial and advisory support of government, environmental attractions of corporate activities and a variety of Services (Lerner & Haber, 2000). Several studies have been done on establishment of entrepreneurial companies, effective factors on success and failure of entrepreneurial processes, entrepreneurs' personal characteristics, inheritance of the entrepreneurial, demographic characteristics such as age, gender, marital status, social status, education, experience, race, psychological characteristics of success-seeking, risk taking, confidence, being pragmatic, independence, internal locus of control (Gruel & Atsan, 2006). In a research that has accomplished in Turkey on 308 entrepreneur women, results showed that entrepreneur women, who need high success, operate decentralized and flexible in strategic decision-making process. And entrepreneurial women who have stronger internal locus of control in the decision making process is less formal and
bureaucratic (Oben et al, 2011). In an article, by examining the personalities of entrepreneurs and their success elements in business, it has been shown that entrepreneurs are people who are innovative, challenge-lover, dedicated, imaginative, creative, risk-taker, ambitious and seeker (Dov et al, 2010). In measuring personal entrepreneurial characteristics of librarians and information professionals employed at the libraries in public universities in Tehran, it is stated that there is a significant relationship between personality traits of need for achievement, creativity, risk taking, internal locus of control and entrepreneurship level in librarian and that there is not significant relationship between personality traits of tolerance of ambiguity and entrepreneurship level in librarians and information professionals )Rastegar,2010(. six characteristics of success seeking, internal locus of control, risk-taking, tolerance of ambiguity, creativity and self-confidence in students of two universities in Turkey are evaluated by survey routes. The results showed that except ambiguity tolerance and self-confident, other entrepreneurial characteristics have significant differences in two groups of students who have plans to build their entrepreneurial business and the group that did not. The first group of students (including 18% of respondents) has characteristics like high risk-taking, internal locus of control, strong need to success-seeking and innovation (McCarty, 2005). In investigation and recognition of entrepreneurial personality traits of female managers in sports clubs in Tehran, it is stated that female managers of sports clubs have characteristics of internal locus of control, need for achievement, creativity, pragmatism, and tolerance of ambiguity but the average of risk-taking, challenges and managers' word flowing was lower than standard. In examining the relationship between personality traits, there was not a significant relationship between the tolerance of ambiguity, internal locus of control, achievement incentive, dreaming and challenge-seeking (Mansouri, 2008). In the beginning of entrepreneurial activities, adventurism and risk-taking play important roles (Wagner, 2007). In a research titled as comparative examination of entrepreneurial psychological characteristics of postgraduates in fields of education programming, art, agriculture and computer in Tehran University, it is stated that there is not a significant difference between four groups of postgraduates in terms of entrepreneurial characteristics. additionally, there is not a significant difference between two gender groups of postgraduates in terms of success need, independence need, creativity and internal control locus but in viewpoint of risk-taking there is a significant difference between male and female postgraduates; in another word, men have more risk-taking than women. Between psychological characteristics of entrepreneurship, three characteristics of success need, internal control locus and risk-taking have no significant relationships with educational progress but significant relationships between two characteristics of independence need and creativity and educational progress was confirmed (Zirak, 2007). In a study by the purpose of investigating the contexts of appearing and education entrepreneurship in students, it is stated that there is a significant relationship between variables such as tolerance, belief in self-control, confidence, success seeking need, risk taking, creativity and innovation and entrepreneurship while there is not a significant relationships between the level of students' entrepreneurship and education programs (Azizi, 2003). In a research titles as reviewing effective factors on entrepreneurship process in postgraduates of agriculture, it is stated that there is a significant and positive relationship between social factors, educational factors, risk taking, independence, self-control, and demographic factors and variable of entrepreneurial coefficients (Rihani, 2007). In another research it s stated that male entrepreneurs have higher scores than female characteristics of flexibility, time management, risk tolerance and extraversion have and female also have higher
scores than male in planning, intuition and perception, but in general characteristics of entrepreneurial spirit there was no significant difference between men and women (Collins, 2007). By totaling the ideas of theorists who studied entrepreneurship by concentrating on personality traits, these issues are expressed as entrepreneurs' personality traits: They will not motivated by money, they requires high success but low power, they absorb others towards their thoughts magnetically, they are not interested in business at first, they are often motivated internally, they will be resolved when others refer to them as rebellious or strict, they hardly accept the authority, they have need to independence, they are attracted by challenges more than risks, They consider results more than effort, they require frequent feedback and recognition, they call for challenge traditional knowledge and what institutions are doing, they are in good health and high consciousness, and finally they are competitive and able to change (Connolly, 1986). Those who think they have the characteristics of an entrepreneur will demonstrate higher creativity and progress motivation (Shaver et al, 1990). Progress motivation is higher especially among entrepreneurs, founders of companies than non-entrepreneurs and even managers (Mine et al, 1989).

**Research hypotheses and question**

In the last hundred years, higher education in our country, Iran, has extraordinary development in various aspects, especially in terms of quantity and there is no doubt in it. But this progress was in public high education and in particular field of any expertise and most of the faculties only consider education in their mission with no programming and arrangements for inoculate entrepreneurship and value-creation. Then we see thousands of the graduates who there is no sign of entrepreneurship and idea-creation and these people are always looking for a job in any field even though unrelated to their field of expertise. We are always witness of a huge wave of unemployed and low-skilled or unskilled job seekers who are results of universities' educational machine that merely has only one production line called theoretical line (Loregani, 2008). Graduates in our country nowadays are forming the main part of the unemployed population and according to assessments, each year it is adding up to that population at least about 800,000 new job seekers. Based on getting doubled of the population in our country in the past three decades, the most people who were born in the early years after the revolution are connecting rapidly to these applicants. According to the announcement of our country's planning organization and Ministry of Labor and Social Affairs, most of these people have high academic degrees (Statistical Center of Iran, 2007). One issue that is the result of several studies in different countries is lower rate of entrepreneurial in women regarding men (GEM, 2003). Thus, a problem that can be investigated is that why is entrepreneurial rate low among women? This question is important since nearly half of the country's population is consist of women and yet due to various changes in the political, social, economic, cultural, and technical changes, women have become more readiness to participate in social activities. Accordingly, the research main question is comparing of entrepreneurial spirit between male and female postgraduates. And the researcher is seeking to answer the following question: if there is a significant difference in entrepreneurial spirit between male and female postgraduates? The default of this study is that there is a significant difference between entrepreneurial spirit, risk taking, success-seeking, control locus, creativity, tolerance for ambiguity and independence of male postgraduates and female postgraduates in PNU.
Research Method

In this study, researcher is not seeking to determine the causal nexus and is dealing merely to describe the current situation. So this research is a descriptive study (survey and correlation) and is an applied research in terms of purpose and in viewpoint of approach is a quantitative one. In fact the intention is to try to obtain conclusions on statistical universe based on the results of the sample.

Statistical universe

Considering that the range of entrepreneurial postgraduates could be affected by interest and desires of accepted freshmen, so a wide range of all postgraduates from the years 2007 to 2012 were considered as the statistical universe. For sampling, the sampling stratified method has been used. In order to do that, after providing a complete list of postgraduates in mentioned years, sampling has been done regarding alternative connection to the classes. According to Cochran's formula, the sample size was calculated as 193 persons. In order to make sure the number of 300 questionnaires were distributed among observing universe and a number of 203 questionnaires were completed and analyzed.

Statistical method and questionnaire

According to the nature of the research and its goals, the most appropriate method for collection data is the use of questionnaire. So, the questionnaire of entrepreneurial spirit measurement designed by Naeej et al (2007) was used. The questionnaire consists of 30 questions and investigates factors of risk-taking (questions number 1 to 5), success seeking (Questions 6 to 10), locus of control (questions number 11 to 15), creativity (questions number 16 to 20), tolerance for ambiguity (questions 21 to 25 questions) and independence (questions number 26 to 30) in people. In order to examine the reliability of the questionnaire, retest method has been used and in a period of 15 days, questionnaires were distributed among sample mass of 40 persons. Correlation coefficient was calculated as 0.87. Furthermore, Cronbach's alpha coefficient at significant level of (0.05 ≥ P) was calculated in order to determine how internal consistency of the questionnaire. Values were calculated as follows:

Risk taking factor: 0.81; locus of control: 0.79; success-seeking: 0.88; creativity: 0.83; tolerance of ambiguity: 0.86; independence: 0.88 and the total entrepreneurship questionnaire: 0.86. For data analysis, descriptive and inferential statistical methods were used and the indices of mean, standard deviation, variance and T-test were calculated by using SPSS software version 18 at P <0.05 level.

Research Findings
As it is observed in Table 1, most people in the sample are between 30 and 35 years old (32 percent). According to the results most people 30 to 40 years of age have to entrepreneurship exposure the majority of examples of research in this age range can lead to results more Generalization. Most of the people in sample were female (56%). Statistics and Research in Ministry of Science and Technology show more female's participation in higher education than male in PNU.

Table 2: Distribution of scores on variables that affect female and male in terms of entrepreneurial spirit

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>risk-taking</td>
<td>Male</td>
<td>90</td>
<td>15.28</td>
<td>3.361</td>
<td>.281</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>113</td>
<td>14.83</td>
<td>3.059</td>
<td>.257</td>
</tr>
<tr>
<td>success seeking</td>
<td>Male</td>
<td>90</td>
<td>17.08</td>
<td>2.220</td>
<td>.201</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>113</td>
<td>17.09</td>
<td>2.976</td>
<td>.180</td>
</tr>
<tr>
<td>locus of control</td>
<td>Male</td>
<td>90</td>
<td>16.25</td>
<td>2.702</td>
<td>.244</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>113</td>
<td>15.79</td>
<td>2.335</td>
<td>.214</td>
</tr>
<tr>
<td>creativity</td>
<td>Male</td>
<td>90</td>
<td>16.28</td>
<td>3.106</td>
<td>.271</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>113</td>
<td>15.48</td>
<td>2.717</td>
<td>.241</td>
</tr>
<tr>
<td>tolerance of ambiguity</td>
<td>Male</td>
<td>90</td>
<td>14.67</td>
<td>3.238</td>
<td>.272</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>113</td>
<td>14.25</td>
<td>3.051</td>
<td>.256</td>
</tr>
<tr>
<td>independence</td>
<td>Male</td>
<td>90</td>
<td>15.59</td>
<td>2.840</td>
<td>.256</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>113</td>
<td>14.45</td>
<td>2.677</td>
<td>.247</td>
</tr>
</tbody>
</table>
The data in Table 2 shows that:

- In male postgraduates the average of variables from the highest score to the lowest score are as follows in a row: success seeking (17.08), creativity (16.28), locus of control (16.25), independence (15.59), risk taking (15.28), and tolerance of ambiguity (14.67).

- In female postgraduates the average of variables from the highest score to the lowest score are as follows in a row: success seeking (17.09), locus of control (15.79), creativity (15.48), and risk taking (14.83), independence (14.45), and tolerance of ambiguity (14.25).

- The average of variables: creativity, locus of control, independence, risk-taking and tolerance of ambiguity, in male postgraduates are more than female postgraduates.

- Female postgraduates have more scores only in the success seeking variable.

**Table 3: Summary of t-test for independent groups**

<table>
<thead>
<tr>
<th></th>
<th>Levine’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Risk-Taking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>3.701</td>
<td>.068</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Success seeking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.075</td>
<td>.798</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>locus of control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.769</td>
<td>.411</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
According to the results that are shown in table 3, there is a significant difference between variables of creativity (t = -2.124), independence (t = -2.399) and the entrepreneurial spirit (t = 2.071) in male and female postgraduates. But there is no significant difference between variables of risk taking (t = -1.561), success seeking (t = -0.313), locus of control (t = 0.819), and tolerance of ambiguity (t = -1.704) in male and female postgraduates.

**Conclusion and suggestions**

In present world's competitive and market-based economy with quick changes and rapid transition from an industrial society to an information society and changing national economy to the global economy, entrepreneurship is as the motor of development that can lead to economics' growth and development, increase productivity, create employment and social welfare. So that in global area, creative, innovative and initiator people as entrepreneurs are the source of major developments in industrial, production and service areas and their role as engines of economic development, national heroes and industrial development, motive and incentive of investment, agent of employment creation, main element in technology transferring and factor of gaps and market bottlenecks elimination, are determined in the societies.

In this context, the aim of this study was to compare entrepreneurial spirit of male and female postgraduate. The results showed that there is a significant difference between the variables of
creativity, independence and entrepreneurial spirit in female and male postgraduates. However, there is no significant difference between the characteristics of risk taking, success-seeking, locus of control, and tolerance for ambiguity in female and male postgraduates. The results of this research is compatible with Rihani’s research (2007) that stated there is a significant and positive relationships between demographic factor and entrepreneurship coefficients, and also is compatible with the research of Azizi (2003). Of course the results of this research are not compatible with the Zirak’s research (2007) that stated there is not a significant relationship between the characteristics of entrepreneurship and gender in postgraduates of quadruplet fields. Rastegar (2009) stated that there is not a significant relationship between the gender of librarians and their entrepreneurship level and Collins (2007) stated that there is no significant difference between men and women in reviewing the general characteristics of the entrepreneurial spirit.

The average of variables like creativity, locus of control, independence, risk-taking and tolerance of ambiguity, in male postgraduates are more than female postgraduates. Female postgraduates have more scores only in the success seeking variable. Hence, according to the importance of female share development in national economic and confronting female unemployment, necessary conditions should be provided for the development of female entrepreneurship to create jobs and opportunities for females and others and bring society's problems to an end. At the end, based on the results of the research, following recommendations are offered:

- fortifying the culture of risk-taking, success-seeking, locus of control, Creativity, tolerance for ambiguity and independence among students.

- Creating extra educational courses to strengthen students' psychological characteristics.

- Inviting successful entrepreneurs for teaching some entrepreneurial skills in academic communities and establishing a close relationship between them and students.

- planning a comprehensive program aimed at teaching related skills to entrepreneurship development in family, school, college and even at work.

- Establishing entrepreneurship counseling centers for getting familiar with details and executive process of business creating especially in the area of professional sport.

- Developing entrepreneurial culture through making movies, documentary and cartoons about biography of a successful entrepreneur and creative people.

- Holding more conferences, speech, forming association and entrepreneurial circles, publishing relevant journals, especially holding entrepreneurial workshops and specialized training courses for students.

- It is suggested to measure and evaluate psychological characteristics of student as soon as their acceptance in the university and also in the final year of their education and finally compare them and get a result.
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