Study of the Effect of Different Personality Traits on the Entrepreneurship, Creativity and Innovation among the Personnel of Islamic Azad University, West Azarbaijan Province

Maryam Lashkarian, Kamel Davoudi, Esmail Nabizadeh

ABSTRACT

This research is mainly conducted in order to investigate the effect of type of personality among the personnel of Islamic Azad University, West Azarbaijan Branch on their entrepreneurship, creativity and job innovation. Going through survey research methodology in this research, we have studied three hundred and five persons from among the personnel of Islamic Azad University as statistical sample using quota classification method. Tools for collection of data include Eysenck’s Personality Questionnaire (EPQ), Randisp’s creativity questionnaire, Martin Papich’s Innovation Questionnaire and Secarburf Zimm’s entrepreneurship questionnaires. In order to analyze findings, descriptive statistical methods such as frequency, statistical charts, etc and inferential statistical analyses such as U and Z non-parametric test were used. According to results obtained in this respect, 58.7% of the persons subject of this study is extrovert and the rest 41.3% is introvert. Moreover, respective results reveal that there is a significant difference between the two groups, subject of study based on creativity and innovation whereas the rate of entrepreneurship is relatively the same. Consequently, one may come with this conclusion that type of personality of the persons, subject of this study has influenced their creativity and innovation in such a way as job creativity and innovation are higher among extravert group- yet not affecting their entrepreneurship.

INTRODUCTION

Undoubtedly, manpower at any organizations is regarded as an infrastructure and fundamental resource of the said organization. No organization could achieve its goals unless through recruiting creative and active manpower and benefiting from honest persons who are consistent with organizational goals. Thus, recognition of spirits and various spiritual and mental aspects of the personnel, materialization of their demands and subsiding their spiritual stresses and daily concerns may effectively help increase of efficiency and productivity of the personnel. Nowadays, organizations attach a great emphasis on selection of personnel at all levels from the first organizational level to the highest executive levels. Industrial/organizational psychologist has found that organizational success or defeat is widely related to the quality of the personnel of the said organization (Mahdad- 56; 2002).

One of the issues that is directly related to efficiency and raise of productivity among personnel refers to the notions of entrepreneurship, creativity and innovation of the personnel in an organization. These notions (creativity, entrepreneurship and innovation) are sometimes used interchangeably. However, this research tries to differentiate among the said concepts and to study the effect of personality on the quality and quantity of each notion accordingly. Recognition of and orientation with personality aspects of the personnel shall enable managers to become aware of the interests and tastes of every individual about his/her job. Providing respective facilities and desirable environment, the managers shall turn potentials of the personnel into practice. In other words, fresh ideas are created by the mind of creative persons and encourage the same toward achievement of organizational goals.

With respect to the role of variables and personality traits in prediction of entrepreneurship, creativity and innovation, this research dealt with study of this question: Do personality paradigms influence persons

Corresponding Author: Esmail Nabizadeh, Department of Agronomy, College of Agriculture, Mahabad Branch, Islamic Azad University, Mahabad, Iran.
E-mail: esmaeil_nabizadeh@yahoo.com, Tel: +98 914442 3089
becoming entrepreneur, innovative and creative and predict the same? In other words, is there any difference among the persons with various personality traits in the view of entrepreneurship, creative and innovation?

The personality of a person is a combination of psychological characteristics (such as calm, aggressive, ambitious, faithful or sociable (Robinson, 2003: 230), (Alavi, 2002: 76). Elsewhere, McShean and Van Glin consider the personality relatively fixed patterns of behavior and compatible inner modes, which reveal behavioral tendencies of a person (Wilksxon and Chathman, 2006:165). The subject whether entrepreneurship can be predicted using personality traits of entrepreneurs or not, has attracted the attention of a lot of researchers during the recent decades (Miner, 2003), (Bouchikhi, 1993) and (McClelland, 1961).

In 1934, Schumpeter pointed out that it most likely that entrepreneurship is associated with an innovative personality (Schumpeter, 1934: 67). Since then, most of researchers have followed the idea of Schumpeter with respect to the relation between entrepreneurship and personality traits. Upon commencement of the 1980s (the decay of entrepreneurship), a huge number of papers and works in the developed countries raised this question that whether you have the required essence for being an entrepreneur concentrating on characteristics and traits of personality of entrepreneurs. In fact, the said works tried to describe distinguished characteristics of entrepreneurs. A few of scholars put forth Self-evaluate tests in order to evaluate the potentials of the persons to become entrepreneurs.

For example, the checklist for going into business, as a base for such researchers and tests was a belief that has been presented by McClelland at first in his book entitled “The Achieving Society” in 1961, rejecting the relation between motive for achievement or need for achievement in addition to other needs namely power and dependency. Based on the idea, put forth by McClelland, compared to non-entrepreneurs, the entrepreneurs feel need for achievement more (Bygrave, 1997: 89). This idea propounded by McCelland actually established the foundation of the paradigms in the researches associated with entrepreneurship, known as “Personality Paradigms”. The said paradigms compromise direct assessment of personality traits or motivation tendencies, held by entrepreneurs. In spite of the fact that since then initiatives of McClelland et al (Klinger, 1966: 123) (Kilby, 1971:89) have been criticized, their efforts provided a foundation for execution and compilation of more precise tests on psychological characteristics of entrepreneurs (Robinson, 1991). Following McClelland and et al, numerous researchers made every possible effort in finding certain personality traits that distinguish entrepreneurs from non-entrepreneurs (Swayne, 1973:90) (Brockhaus, 1975:78). The researches of the said researchers were actually continuation of common personality paradigms including such issues as motive, achievement, control center, riskibility, problem solving style and innovation. For this purpose, each researcher concentrated on certain variable/s introducing the same as a base of differentiation between entrepreneurs from non-entrepreneurs.

For example, based on his studies on the activities of entrepreneurs in 1984, Welsh concluded that they enjoy the following characteristics: Desirable physical health, fundamental need for control and leadership with freedom for an act and selection of act trends, self-confidence, especially when encountering with hard conditions, perseverance, comprehensive awareness about environment, realistic orientation, distinguished inferential capability, low need for base, objective approach of inter-individual relations, emotional sustainability, attraction of challenge and no risk (Welsh- 1984:90).

In 1986, Paul Connolly gathered the comments given by the theorists who studied entrepreneurship concentrating on personality traits and offered sixteen personality traits for entrepreneurs: they are not motivated by money, they need high achievement but low power, attracting others toward their thoughts like magnitude, they are not fond of business at first, they are mostly inter-stimulated, when others call them rebels or restricts, they became more decisive, they hardly accept authority, they show high need for independency, they are very flexible thinkers, who easily shift from one rational problem-solving style to Intuitive Problem-Solving Style, they are greatly realistic, they also enjoy the feeling of emergence and urgency, they are mostly attracted by challenge rather than by danger and risk, they are mostly concerned about conclusions rather than efforts and endeavors, they are in need of repetitive feedback and recognition, they seek for challenge of traditional knowledge and what are being done by organizations, they enjoy higher level of health and consciousness, and finally, they are seeking for competition and they succeed to change (Connolly, 1986:134). In 1995, Costa & McCrae indicated the most important personality traits of entrepreneurs in a particular pattern entitled “Five great factors”. These five great traits are namely extraversion, agreeableness, conscientiousness, openness and neuroticism. Considering their viewpoint, entrepreneurs are distinguished at higher levels of extraversion, conscientiousness and openness and lower level of agreeableness and neuroticism (Costa & McCrae, 1995:78).

In 1990, Timmons combined the results of his repetitive studies on personality traits of entrepreneurs and enumerated twelve characteristics namely commitment and determination, enthusiasm toward sense of responsibility, preoccupation toward opportunity, toleration of danger, ambiguity and uncertainty, self-reliance, creativity, flexibility, tendency toward immediate feedback, high level of energy, motivation for being distinguished, orientation for future, tendency toward learning through defects and errors and ability of leadership (Timmons, 1990: 156).
Finally, in 1997, Bygrave summarized the most important personality traits of creative persons and entrepreneurs in what is called by himself as “10D” (The 10 Ds): Dream (a picture of future, which is pleasant for themselves (what is in their mind), decisiveness (they are not careless), Doers (when they make up their mind to do something, they do it immediately), determination (they perform their business with optimum commitment and they seldom give up their work), devotion (they love whatever they do), dedication (they feel strong sense of commitment with respect to their business even it costs their relations with their family and friend), detail (they are at top of major details), destiny (they are willing to manage their destiny rather than being dependent on the employer), Dollar (access of wealth is not major stimulant of the said persons. Money is mostly regarded as evidence for assessment of their achievement), Distribution (they distribute ownership among the persons who share their achievement (Bygrave: 1997: 169).

A few tasks that have been managed with respect to the subject of this research and they can be used as research background, are studied hereunder in brief: Ebrahim Masoud Nia (2007) conducted a research entitled “Investigation of validity of personality paradigms in study and prediction of entrepreneurship”, aiming at designation of validity of paradigms in study and prediction of entrepreneurship. This study has been concluded on 120 persons (60 entrepreneurs and 60 non-entrepreneurs, selected through random sampling method) going through comparative-causative sampling method. The said two groups answered standardized questionnaires of achievement, source of control, self-esteem, tendency toward risk, innovation, independence, being a starter, sense of responsibility, perseverance and physical energy. According to the results obtained in this respect, only two groups showed a significant difference with respect to three variables out of thirteen variables namely individual control, motive, achievement and energy. Logistic regression analysis results revealed that only three variables namely individual control, achievement and sense of responsibility could predict entrepreneurs. Personality paradigms in studying entrepreneurship encounter with serious challenges and problems. The findings of this research have confirmed the claim made by a group of researchers who speak about “Crisis of personality paradigms” in studying entrepreneurship (Masoud Nia- 2007:98).

Behzad Karami Matin conducted his study with the goal of determining the relation of personality traits of nursing students of Tehran University of Medical Science upon their educational achievement. In that study, all the nursing girl students of Tehran University of Medical Science who were studying in the last year and were in the age range of 21-26 were studied through Rion's IQ Test for Adults and their IQs were determined. Then, those who had IQs between 95 and 115 (138 students) were included in the study. The relation between marital status, type of residence, place of residence and family income of the students and their average educational scores (as an index for educational achievement) was evaluated through T, variance and regression tests and their personality traits were then specified by using Bren Roter Personality test. Finally, the relation between each of the personality traits set forth in this test and the average educational scores was investigated through regression test. The findings of this study showed no significant statistical relation between underlying variables such as marital status, residence method, residence place and family income and the educational achievement. Furthermore, there was no significant statistical relation between the studied personality traits and educational achievements of the students. The results obtained from the study show that different personality traits are not a factor for educational achievement or failure.

In the article titled "Investigating the relation between personality and management efficiency in the managers of public organizations", Seyed Mohammad Moghimi et al. (2008) concluded that Positional Approach in leadership indicates several interactive factors in the process of efficient management including the traits and behaviors of leaders, subordinates and the position with which they interact. In that study, the focus was on the effect of managers' personality traits on their efficiency. Today, the consistency of mental and personality traits of the job applicant with the intended job is important in employing human resources. This has been stipulated in article 9 of the bylaw for modifying managerial and administrative systems. Four types of Yung Problem Solving methods were selected from personality models including activist, rational, group-oriented and innovative methods. Effectiveness indexes are based on Kritner and Krinski components. The results of the study confirmed the major hypothesis, i.e., the relation between special types of personality types with management effectiveness. It is also observed in the lateral results that the most effective type of personality in the senior managers is intuitive-emotional (group-oriented) type and in operational managers is intuitive-rational type.

Mirtaghi Garrousi Farshi et al. (2006) made a research with the goal of investigating the relation between personality traits and happiness among the students of Tabriz University. The research included 396 students with and average age of 21.73 who were elected using random classification method. All the students answered the happiness and neo-form questionnaires. Based on the results, all the students believed that positive emotions were higher and better than negative emotions and there was no significant difference in the level of gender-based happiness and the field of study. Moreover, it was determined by using Pierson Correlation Coefficient that happiness had a positive and significant relation with extraversion, agreeableness and conscientiousness and had a negative and significant relation with neuroticism. No significant relation was obtained with flexibility.
Finally, it was specified by step to step regression method that neuroticism and extraversion determined 0.417% of happiness variance.

Maryam Moghimi et al. conducted a research titled "Investigating the effect of personality traits of educational department of Khorasan Razavi on the level of their partnership in recommendation system" in the school year 2005-06. Statistical society of the research included all the personnel employed in education department of Khorasan Razavi, seven districts and Tabadkan district of Mashhad. Two societies were considered in recommendation system including participant and non-participant personnel proportional to causation-comparative researches. In the society of participant student, 30 persons were selected as samples using intentional and impossible method based on the highest participation. In the society of non-participant student, 50 persons were selected proportional to the number of participant student in each district using simple random method. Necessary data was collected through two questionnaires and was analyzed by comparing two averages and two independent ratios. Based on the findings, there is no significant relation between personality traits such as control resource, positional adjustment and self confidence of participant and non-participant personnel in the recommendation system. Furthermore, from among trait components, only gender and academic degree had a significant difference between participant and non-participant personnel in the recommendation system.

In their study titled "Investigating the effect of different individual and personality aspects on the performance of insurance sales personnel of (Khorasan Razavi)" Ahmad Latifian and Habibollah Doaei sought to identify suitable individual and personality aspects for insurance salesmanship. This study was a survey study and of correlation type. Statistical society of the study included all representations of Iran insurance Co. in Khorasan Razavi Province out of which 110 persons were selected as statistical samples using random method. Data collection tool was a questionnaire and sales information was collected by using the basic questionnaire. The statistical method used in this study was Pierson Correlation Coefficient. The results showed that there was a positive correlation between different personality traits and the performance of sales personnel of Iran insurance Company. On this basis, it has been recommended to use psychological findings at work especially a suitable personality test for employing sales personnel in the insurance companies. Considering the above background, the goals sought in this investigation can be reviewed in two parts:

a) General goal of the study is to investigate the effect of personality traits of the personnel of Islamic Azad University of West Azarbaijan on their entrepreneurship, creativity and innovation.

b) Special goals in this study are set forth as follows:
   a. Investigating the effect of personality traits on the individuals' entrepreneurship;
   b. Investigating the effect of personality traits on the individuals' creativity;
   c. Investigating the effect of personality traits on the individuals' innovation.

MATERIALS AND METHODS

A survey method is used in this research. Data collection tool in this research includes standard questionnaires. Eysenck Personality Questionnaire, Randysy Creativity Questionnaire, Martine Patchen Job Creativity and Innovation Questionnaire and Oskar Borof and Zimerer Entrepreneurship Evaluation Questionnaire were used to evaluate personality, creativity, innovation and entrepreneurship, respectively. Statistical society of the present study includes all administrative personnel (except for directors and deputies) of different departments and centers of Islamic Azad University of West Azarbaijan Province which is 1410 people based on the statistics of 2010. The volume of statistical sample of the present study is equal to 305 persons selected by using quota classification method. Analysis unit in this study is person and includes the personnel employed in Islamic Azad University of West Azarbaijan Province. Research hypotheses are as follows:

1) Personality of personnel that affects on their creativity
2) Personality of personnel that affects on their innovation
3) Personality of personnel that affects on their entrepreneurship

Research variables include the followings: Independent variables are personality traits of personnel and dependent variables are creativity, innovation and entrepreneurship of personnel

Operational Definitions of Research Variables:

Personality:

By this variable in the present study, it is meant the extraversion and introversion personalities of the studied personnel. This variable has been measured by using Eysenck Personality Questionnaire in a nominal measurement level.
Creativity:

It includes anticipation, analysis and change of position, concentration and thinking on the problems, diligence and teamwork. Randsyp Creativity Questionnaire was used to measure creativity which measures it in a systematic measurement level.

Innovation:

It includes use of past work methods and trusting in them and providing new recommendations and work procedures. Martine Patchen questionnaire which measures the variable in a systematic measurement level is used to measure innovation.

Entrepreneurship:

It includes change, self confidence, flexibility, having modern knowledge and optimism. This questionnaire again measures entrepreneurship in a systematic measurement level.

RESULTS AND DISCUSSION

From the total 305 respondents under study, 223 persons (73.1%) are men and the remaining 82 persons (26.9%) are women. 273 persons (89.5%) of the respondents under study in this research are married and the remaining (32 persons) are single. Average age of the student under study is 37/12 with a standard deviation of 7/35 (37/12±7/35). The highest frequency (mode) is related to the age of 32 with a frequency of 26 persons. Minimum and maximum ages of students under study are 25 and 58 (with a change rate of 33 years). The results indicate that 23 persons (7.5%) of the respondents have educations lower than high school diploma, 96 persons (31.5%) have high school diploma, 78 persons (25.6%) have associate degree, 89 persons (29.2%) have Bachelor's degree and 19 persons (6.2%) have postgraduate educations. It is observed that the highest frequency (mode) is related to high school education with 96 persons.

30 persons (9.8%) of the respondents have worked less than 5 years, 58 persons (19%) have worked 5 to 10 years, 76 persons (24.9%) have worked 11 to 15 years, 117 persons (38.4%) have worked 16 to 20 years and 24 persons (7.9%) have worked more than 20 years. It is observed that 16 to 20 years of service has the highest frequency (mode) with a number of 117 persons. Of the 305 respondents studied in the present research, 179 persons (58.7%) have extraversion personalities and 126 persons (41.3%) have introversion personalities. Of the total 179 extraversion respondents, 4 persons (2.2%) are non-creative, 31 persons (17.3%) are creative lower than the average level, 55 persons (30.7%) are averagely creative, 51 persons (28.5%) are creative higher than the average level, and 38 persons (21.2%) are highly creative. The highest frequency (mode) is related to the average creativity with a frequency of 55 people. Of the total 126 introversion respondents, 5 persons (4%) are non-creative, 36 persons (28.6%) are creative lower than the average level, 49 persons (38.9%) are averagely creative, 19 persons (15.1%) are creative higher than the average level and 17 persons (13.5%) are highly creative. The highest frequency (mode) is related to average creativity with a frequency of 49 persons.

Innovation among 179 extraversion respondents has a change rate of 18 (R=18) with minimum data of 12 (Min=12) and maximum data of 30 (Max=30). The highest frequency (mode) is related to the innovation with a level of (24) with a frequency of 26 persons. Innovation among 126 introversion respondents has a change rate of 20 (R=20) with minimum data of 8 (Min=8) and maximum data of 28 (Max=28). The highest frequency (mode) is related to the innovation with a level of (16) with a frequency of 11 persons. Of the total 179 extraversion respondents, 28 persons (15.6%) have a low entrepreneurship level, 46 persons (25.7%) are potentially entrepreneur, 54 persons (30.2%) are entrepreneur and 51 persons (28.5%) are extraordinary entrepreneur. Of the total 126 introversion respondents, 18 persons (14.3%) have a low entrepreneurship level, 47 persons (37.3%) are potentially entrepreneur, 38 persons (30.2%) are entrepreneur and 33 persons (26.3%) are extraordinary entrepreneur.

Inferential Results of the Study (Test of Hypotheses):

U non-parametric test is a suitable statistical test to test the significant effect of a nominal dual mode variable (introversion-extroversion personality) on variable measured on a grade-scale basis (creativity, innovation and entrepreneurship). In other words, the hypothesis is evaluated and tested in the present study by using the grades average difference method.

Hypothesis No. 1:

Personality type of personnel affects their creativity: According to the results, considering that significance level of the test is less than 0.01; it can be stated with a confidence more than 0.99 that the average difference of creativity grades between the introversion and extraversion personality groups is significant and is not random. Therefore, there are sufficient reasons for rejection of zero assumption and confirmation of research assumption indicating the effect of personality type of personnel on their creativity and research hypothesis is confirmed.
The results of the study indicate that those people with introversion personalities are more creative. Tables 1 and 2 show the results of the test:

**Table 1:** Descriptive statistics for creativity level of respondents based on the type of personality

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Type of personality</th>
<th>Number</th>
<th>Average scores</th>
<th>Total scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity level</td>
<td>Introversion</td>
<td>179</td>
<td>167/46</td>
<td>29975</td>
</tr>
<tr>
<td></td>
<td>Extraversion</td>
<td>126</td>
<td>132/46</td>
<td>16690</td>
</tr>
</tbody>
</table>

**Table 2:** Inferential statistics related to the effect of personality type on the personnel creativity

- Mann–Whitney U: 8689
- Wilkakson: 16690
- Z: -3.535
- Significance level: 0.000

**Hypothesis No. 2:**

Personality type of personnel affects their innovation: Considering the significant level of the test (sig=0.000), it can be stated that there is a significant relation between the average value of dependent variable (level of innovation) based on dependent groups (personality type of personnel). The results indicate that the average difference of innovation level in the two studied personality types is significant with a possibility of more than 0.99 and the hypothesis is therefore confirmed. Tables 3 and 4 show the summary results of testing the above hypothesis:

**Table 3:** Descriptive statistics for innovation level of respondents based on the type of personality

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Type of personality</th>
<th>Number</th>
<th>Average scores</th>
<th>Total scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation level</td>
<td>Introversion</td>
<td>179</td>
<td>178/76</td>
<td>31997/5</td>
</tr>
<tr>
<td></td>
<td>Extraversion</td>
<td>126</td>
<td>116/41</td>
<td>14667/5</td>
</tr>
</tbody>
</table>

**Table 4:** Inferential statistics related to the effect of personality type on the personnel innovation

- Mann–Whitney U: 6666/5
- Wilkakson: 14667/5
- Z: -6.092
- Significance level: 0.000

**Hypothesis No. 3:**

Personality type of personnel affects their entrepreneurship: Considering the significance level of the test which is equal to 0.084 (sig=0.084) and is higher than 0.05, it can be said that there is no significant difference between the average grades of dependent variable values (entrepreneurship) based on independent groups (two personality groups). Therefore, there are no sufficient evidences to reject the zero assumption and to confirm the research assumption and thus the research hypothesis is rejected. The results obtained from this section of the present study show that personality type of personnel (introversion or extraversion) has no significant effect on their entrepreneurship. Tables 5 and 6 show the results of testing this hypothesis:

**Table 5:** Descriptive statistics for entrepreneurship level of respondents based on the type of personality

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Type of personality</th>
<th>Number</th>
<th>Average scores</th>
<th>Total scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurship level</td>
<td>Introversion</td>
<td>179</td>
<td>160/04</td>
<td>28646/5</td>
</tr>
<tr>
<td></td>
<td>Extraversion</td>
<td>126</td>
<td>143</td>
<td>18018/5</td>
</tr>
</tbody>
</table>

**Table 6:** Inferential statistics related to the effect of personality type on the personnel entrepreneurship

- Mann–Whitney U: 10017/5
- Wilkakson: 18018/5
- Z: -1/725
- Significance level: 0.084

**Conclusion:**

This study evaluated the effect of personality variable (introversion/extraversion) on entrepreneurship, creativity and innovation variables of administrative personnel of an official organization (Islamic Azad University of West Azarbaijan Province). The results showed that:

1. Personality type of personnel affect their creativity (those with extraversion personalities are more creative than those with introversion personalities).
2. Personality type of personnel affect their innovation (those with extraversion personalities are more innovative than those with introversion personalities).
3. Personality type of personnel has no effect on their entrepreneurship.

For the third hypothesis and the fact that personality type of personnel has no effect on their entrepreneurship, it should be said that this result is in contradiction with the findings of researchers such as Schompeter, Velsh, Masoudnia, etc. Maybe one of the reasons of such contradiction with the previous findings...
is the type of study and measurement of personality traits in terms of introversion/extraversion. For other hypotheses, considering that no other research has been conducted before this study to investigate the relation or effect of personality type (introversion/extraversion) for creativity and innovation, it can therefore be said that the result of study in this regard is somehow unique. Based on the results of the study, different governmental and non-governmental organization and systems are recommended to be more accurate in employing personnel and human resources and to employ those with extraversion personality traits, i.e., those who are more interested in the events occurring around them and are interested in comparing their ideas with other people, those who activist and pioneer in the works and those who easily match with the group and organization and express their ideas and are interested in new individuals.

REFERENCES


Connolly, P.M., 1986. Entrepreneurs in corporations. Work in America Institute, Inc.


Lotfiyan, A., H. Doae, 2006. Study of the effects of different individual and personality aspects on the efficiency of insurance sales authorities (RazaviKhorasan), Knowledge and Development.

Masoudniya, E., 2007. Study of the credit of personality paradigms in study and prediction of entrepreneurship, Raftar Daneshvar, 14th Year, New Period., 23.


Moghimi, Mahram, M., M. Saidi Resvani, H. Aghamohamadian sherbaf, 2006. Study of effects of personality characteristics of Education and Training organization personnel of Khorasan e Razavi on their participation rate in suggestions systems. Disciplinary and psycho studies of Ferdousi University, Mashhad.9th period, 1.


