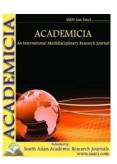


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THE EFFECT OF ORGANIZATIONAL FACTORS ON CREATIVITY IN THE IRANIAN ACADEMIC CENTER FOR EDUCATION, CULTURE & RESEARCH UREMIA BRANCH

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ABSTRACT

Human being tangibly has obtained this fact that thoughtfulness, intelligence and wit play a major role in bliss and improving the material and spiritual life. Swift development in social and behavioral sciences re-identified this role in different life aspect. This research under the title of "analyzing the effect of organizational factors or creativity in Jahad Daneshgahi Urmia branch" with statistical population of 132 people is written based on these goals: recognizing the effect of organizational factors on creativity, the study of leadership approach and its effect on creativity, the study of organizational structure and its effect on creativity, investigating training and education and its effect on creativity. Research hypotheses include: 1. Organizational factors have a positive effect on creativity 2. Leadership approach has a positive effect on creativity 3. Organizational structure has a positive effect on

creativity 4. Rewarding system has a positive effect on creativity 5. Required resource supply has a positive effect on creativity 5. Training and education have a positive effect on creativity. Field method and questionnaire were used to collect data and SPSS software was used to analyze data. All hypotheses were approved.

KEYWORDS: creativity, leadership approach, organizational structure, reward, resource supply, education.

INTRODUCTION

Economical efforts of human being have already focused on obtaining the most result from the least amenities and efforts. This tendency can be named as an enthusiasm to reach an increased efficiency. All inventions and originalities of human being from the most initial ancient tools to the most complicated contemporary electronic and mechanic equipments are influenced by this enthusiasm.

In spite of the long presidency of creativity in human being life, organizations have discovered recently that because of the swift technological revolutions, global competition and economical unreliability, creativity is the key and constant resource of competitive and viability privilege. This constant competitive privilege is appeared based on opinions, goods and services. Those organizations that paid less attention to the effective factors on organizational success will face some difficulties in their viability.

SIGNIFICANCE OF STUDY

Always this question is raised that why a country has developed while another country with better utilities and resources is left behind. Which important factor in the same situations can lead to development and success (organizational - group- individual) or lead to malfunction and dropping behind of some others. The answer of this question should be sought in direct relationship and positive correlation between creativity and innovation of human force and the level of organizational efficiency.

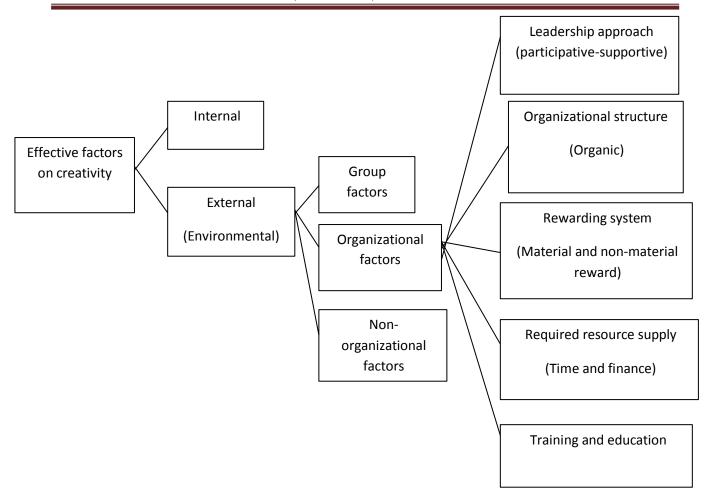
STATEMENT OF THE PROBLEM

Human being tangibly has obtained this fact that thoughtfulness, intelligence and wit play a major role in bliss and improving the material and spiritual life. Swift development in social and behavioral sciences re-identified this role in different life aspect. Nowadays fundamental indexes of intellection in creation and innovation play the basic role in the magnificence of material civilization of the world. Today those companies and organizations that are pioneer in creativity and innovation can achieve success. Viability and development are the most important principles for organizations. In recent decades these viability and development were naturally feasible through the simple responsiveness to environmental changes, but nowadays conditions are different. Innovation and creativity are the most valuable assets of organization and also they are equipments that enable organizations to precede their rivals which are involved in revolutions. Companies and organizations that go toward the innovation and encourage their human resources in this way are successful. (Robins 1376: 26). Therefore according to the important role of

creativity in viability and ascendency of organizations especially Jahad Daneshgahi which is an educational and investigational entity, creativity plays a fundamental role in achieving organizational goals in Iranian Academic Center for Education, Culture & Research. In this study first of all we will discuss about organizational factors and then the effect of some organizational factors variables including structure, leadership approach, rewarding, education and resource supply on creativity as empowerment output is going to be investigated.

THEORETICAL BASIS OF RESEARCH

Creativity is an essence for the viability of any organization (Griffin W.Ricky, 1993, PP.295-297). Amabil in 1983 investigated about 7000 articles about creativity and found out that only 138 articles have discussed about creativity variables. Of these 138 cases just a few numbers spoke about the role of organization's environmental variables in creativity. Amabil et al (2003) after more than two decades research about the relationship between working environment and creativity and investigating numerous organizations and hundreds of individuals and groups concluded that creativity is intensely influenced by working environment. These findings state that environment has a more significant role in comparisons with other factors like individual features and talents in creativity. According to Amabil organizational factors are absolutely more manipulative and changeable than individual features and talents. Peter Draker (1999) confirms Amabil's idea about the difficulty of changes in innate talents and suggest never try to change yourself, this is not practical. Fiddler also declares that it's difficult to change people and it's better to change their position (organizational environment) rather than changing people. Amabil (1998), Andriopoulos (2001) Cardinalo and Hotfild (2001) demonstrate in their research that creativity is affected by organizational variables. The most important organizational variables effecting creativity include "leadership approach", "organizational structure", "rewarding system", "and organizational atmosphere", "resources". This research aims to study the effect of organizational factors and variables on creativity; thus it investigate the relationship of organizational factors like leadership approach, organizational structure, rewarding system, required resources supply and education with creativity.



LEADERSHIP APPROACH

Conducted researches in organizations environment demonstrate that leadership approach is one of the organizational aspects that significantly affects creativity (Amabil and Graigzoikz, 1987, king and Anderson, 1990). Herad believes that the basic challenge of organizations interested in creative trading solutions is to provide a "leader" who provokes creativity in an organizational field (Ford and Gioia, 1995). "Effective leadership" is the proper leadership for encouraging creativity in organizations which is a fairly extensive idea. Leadership behaviors that lead creativity include setting clear expectations about what should be done and supporting the choices and options of staff in achieving these goals. Researches show that management effort to dictate working procedures are completely inappropriate. Understanding the fact that liberty of act and supportive behaviors can lead to creativity is related to participative- supportive leadership, while dictatorship does not produce creativity. Bernard M. Boss is the first person who declares between successful and effective leadership (Blanchard, 1380: 71). If the leadership approach was not adjusted with staff expectations and people do their job because the leader is in authority, we can say that the leader was successful, but not effective. This is because of the fact that people obey the leader just because he controls rewards and punishments. In contrast if the leader's affairs lead to a successful response from staff and they do their job because they wanted it themselves, in this case the leadership is effective. In such a condition the leader not only is in authority, but also has a personal power that staff respects him and want to

cooperate with him (Blanchard, 1380:92). Dignity is given to the leader by organization while personal power is something that is given to the leader by staff acceptance. Hardy and Schwartz (1996) believe that a leader is effective only in a condition that his behavior was adjusted with his orders. Therefore, regardless the fact that leader's orders are coordinated with his behavior or not, his behavior creates group or organizational culture. (Sadeghi 1376:172). Management efforts in order to dictate working procedures are completely inappropriate. . Understanding the fact that liberty of act and supportive behaviors can lead to creativity is related to cooperativesupportive leadership, while dictatorship does not produce creativity. In other words, creativity is a result of liberty of act in supportive environments not following dictatorial orders. Oldham and Kamingz (1997, 1996) investigated the effect of leadership approaches on creativity in their studies and found out that supportive and non-control approach is the most effective factor on creativity and innovation. Vizberg (1992), Scot and Broos (2004) demonstrated that leaders are able to affect staff creativity through creating self-confidence in them. King and Anderson (1995) explain that specialists considerably agree upon the fact that the leadership approach required for creation and innovation is participative or democratic approach, i.e. staff should be active participants in decision-making process and it should be possible for them to convey their ideas to organization leaders. Alton Mayo believes that participative approach is a democratic approach which reduces working tension and increases creativity. In such a situation, we can expect people to utilize whole their capabilities (Parkinson et al, 1987). Faris (1982) showed in his studies that participative leadership approach leads to the most thriving creations and encourages innovations rather than appointive system. (King and Anderson, 1995, PP.96-100)

ORGANIZATIONAL STRUCTURE

Considering the structure goes back to Hasoren's studies in electronic company of western electric (Joe Mary, 1387:387). Organizational structure is one of the organization's dimensions which aim to divide jobs among organization members and coordinate them. (Moghimi, 1385: 196). Organizational structure's function is to remove ambiguities in a way that is a solution for environmental unbeknownst and emerges from correlated behaviors in connected processes. Structure is produced considering strategy and most of the organizations design their strategy according to innovation and creation, expense reduction and imitation (Robinz , 1376:313). Experts believe that structure has different types and they studied them in two general groups of mechanic and organic. According to Bronz and Scatter (1962) there were two environments and each of them results in special structure formation of itself. "Mechanistic structure" was appropriate for the organizations that act in consistent and safe environments and "organic structure" is suitable for organizations operating in dynamic and inconsistent ones. They determined that mechanistic and organic structures are the most ideal organizational structures that are coherent and no organization exists with mere organic or mere mechanistic structure (Sadeghi, 1386:180). These two researchers found out that using organic structure is more practical whenever the organization needs more creativity. These kinds of organizations expect more of their staff so that they can maintain their competition privilege with new plans. Mintzberg (1989) with a systematic point of view concluded that each organization includes five divisions and each of these divisions has a strategic and dominant in the organization. Structure is formed based on that division. These structures involve "simple", "mechanic bureaucracy", "professional bureaucracy", "partial bureaucracy" and "bureaucracy". Bronz and Stoker (1962) and Mintzberg (1989) believe that organizational structures are effective on creativity and

declare that organic structures (bureaucracy, simple, connected and matrix structures) simplify creativity and mechanistic structures prevent the appearance and emerge of creativity. Martin and Troblaunch (2003) believe that "flexibility", "liberty" and "co-operated team work" are the most important characteristics or values of organic structures that result in the development of creativity and innovation. In contrast, features like "inflexibility", "controlling", predictability" and "discipline related to hierarchy" hinder creativity. Taro (2000) states that whenever affairs are organized precisely, there would be no gap and no weed may grow out of it, and on the other hand it means that excessive sticking to structures won't allow the emerge of any gap so that new flowers can flourish. Organizations with low adjustment have a high level of control through concentrated decision making. Mere obedience of rules has a negative effect on creativity. Ford and Gioya (1995) based on an ultra-analyze of researches, kind of emphasize on bureaucracy structure features and declare that structure in creative organizations tend to flexibility, low level of rules, little explanation of career, and high level of independency since these mechanistic, traditional and hierarchical structures hinder creativity. Some of the other features of organic structure which resemble mostly to the structure of freelance organizations (Robinz, 1376:312) and lead to creativity include: lack of concentration in decision making and low formality, flexibility due to low level of rules and lack of their effectiveness, general explanation of job, granting high level of liberty and appointing authority to individuals in any levels to represent their new opinions and thoughts. Most of the restricting factors of creativity regarding bureaucratic organizations include: hierarchical structure, concentration in decision making, insufficient and inappropriate resources, reduction of budget, tendency to do things in traditional ways and a high level of rules and disciplines. Most of the researchers believe that high formality, hierarchical structure and management supervision of creative behavior are not suitable and mechanistic and inflexible structures prohibit the creativity (Ford and Gioya, 1995).

REWARDING SYSTEM

The reason people do something is that they want to meet their own requirements. They always think about the result and rewards they would get before starting to do it. Organizations control most of the rewards and in most cases these rewards are the way of motivation (Robinz, 1377: 363) and the answer of this question that how it is possible to make staff do some significant creative jobs and special operations. Staff rewarding system is consist of organization's cohesive policies, processes and approaches according to staff's role, proficiency and competence which are an effective assist in organizational efficiency (Abbas Pour 1384:230). Creative decision makers and others expect the organization to recognize their hard work and creativity and appreciate and reward them (through tipping or increasing their wages). Amabil (1997) studied the effect of internal and external motivation on creativity and believes that internal motivation has a more significant and determinant effect on creativity rather than external motivation. He declares that one of the features of creative organizations is rewarding the creativity, but it should avoid external rewarding like money to make their staff creative. Monetary rewarding makes the person to feel that he is under observation. In contrast lack of rewarding to creativity produces negative feeling in organizations. People may think that they are being manipulated or they are not appreciated because of creative functions. Consequently providing a rewarding system and encouraging creative people in this field can be efficient and effective (Alvani, 1372:217). Amabil suggests some rewarding of internal motivation in order to increase creativity including: allowing people to join those projects that they are interested in, generous and

enthusiastic appreciation of individuals and groups creative works, allowing people to work on their desirable ideas, although they are not sure about its success. Rewarding system permits taking risks that has a significant effect on creativity. Researchers like Izenburger and Armeli (1977) believe that external rewarding is utilized with two different controlling and informing purposes. If we use them with controlling purpose, Amabil precisely confirms that external rewarding causes the control of individual's behavior and finally leads to the reduction in internal motivation and creation of staff. If we use rewarding with informing purpose i.e. rewarding convey information that reflects competence and creative function of individuals, it leads to internal motivation and creation. Therefore external rewarding should be observed as those things that demonstrate individuals' competence and endeavors to undertake creative functions. If rewarding distribute through these informing approaches, they can have a positive effect on staff creativity (Sadeghi, 1386:205). Martin and Trablanch (2003) suggest that staff should be rewarded to encourage them to creativity, taking risks, producing, experiencing and executing in their work. As Craft (2001) believes any creative working or behavior should be rewarded to reinforce creativity. According to Strat's idea rewarding should involve flexibility, uniqueness and be special and adjusted with individual or individuals who receive it tyo reinforce creativity through rewarding system. Amabile (Amabile, 1979, PP.221-223) found out that inaccurate evaluation and granting external rewarding results in individuals' creativity repression. Amabile (Amabile 1998, PP.77-80) suggest that the organizations who attempt to encourage creativity, at the same time have to appreciate creativity constantly and avoid monetary rewarding since internal motivations of individuals increases whenever they feel what they do is important for others. In other words, allocating rewards in organizations should provide the most output. At the first step, organization should be planned in a way that rewards were allocated to effective functions (by effective function we mean a function that is along the lines of organizations goals). Just in this case, utilizing rewarding is an effective solution to encourage and motivate staff (Saadat 1375:254-265)

EDUCATION

Education is considered as a tool by which organization determine a range in which their human asset is being considered as a sustainable asset (Abbas Pour 1384: 166)

In order to have creativity we require two kinds of knowledge (not any kinds of knowledge) which are both acquisitive. One is factual knowledge and the other is experimental knowledge. Factual knowledge is the basis of everything, to learn a language w should learn its vocabulary and their meanings, otherwise speaking in that language is not practical (saadeghi,1386: 128). Creative people have the required knowledge in the related field of function. The related knowledge includes "education", "training" and" experience" that a person in contact with the related function (Gardener, 1993). Education exposes the person with a variety of experiences, viewpoints and knowledge basis to reinforce using experiments and divergent problem solving proficiencies and preparing people to utilize different and numerous viewpoint and create more intricate plans (Perkins, 1986). Creativity as other human talents is fairly acquisitive and is not peculiar to special people. Creativity development requires special conditions and educating and guiding organization staff are others facilitators of encouraging and emerging creativity and innovation in an organization. Creativity can be found in all people with various strength and weakness and can be flourished and extended through education (Aghaieefisahani, 1377:157).

Study shows that the feasibility of achieving an invention among those who have academic education is lower than other people and this means that explorations and inventions don't necessarily require academic education (Ojen K. wan fanjeh, 1364:240). People who didn't have academic education, in most cases showed some creations while people with higher education didn't have any creations. Creative characteristic doesn't form intrinsically, however it flourishes in social environment and through education. A teacher who emphasizes on a question leads his students to a creative thinking (Aghayi Fishani, 1377:219). Assiduity and perseverance make creative people use their intellectual and knowledge processes (Esternburg, 1998). Most people fail because they only spend 9 minutes on solving a problem, while solving it requires 10 minutes. Creativity needs hard work and enthusiastic energy and time consumption since nothing valuable including creativity can be obtained simply and swiftly. It only achieves by studying, researching and knowledge educating. Simonten, the magnificent researcher of creativity, on the strength of the results of numerous studies demonstrates that creativity emerges from lots of efforts. Creative people like Edison, Picasso and Einstein and etc. had lots of inventions which means that they faced lots of failures and successes (Sadeghi, 1386:137) since merits are flourished based on experience and education.

RECOURSE SUPPLY

Amabile (1998) believes that money and time are two major resources influencing the creativity. Managers should be aware of allocating these resources. Making decisions about the amount of allocating time and money to a group or project as well as appointing people to a suitable job is an intricate judgment which concludes to encouraging or repressing creativity. Unfortunately, organizations usually suppress creativity through determining unreal urgencies which lead to uncertainty or unreasonable time pressure that causes disenchantment. It's obvious that creativity is most often time consuming. Managers who don't allocate enough time to exploration and doesn't have any special plan for waiting period, hinder creativity inadvertently.

Shali and Gilson (2004) emphasize on time resource and believe that time is an important resource to monitor and manage creativity and managers must ensure that their staffs have access to it. The research conducted by Amabile, Moler, Simson, Hadlei, Kramer and Fleming (2003) demonstrate that people under time pressure are significantly less commited to creativity. Creativity requires time consumption and Basedore (1987) in his research found this fact that time restriction in doing creative jobs is one of the most prominent limitations of creative behavior. Katz and Alen (1988), in agreement with Amabile, express financial resources as one of the important resources of creativity in an organization. However some other scientists like Sikezentemi Hali (1997) believe that managers encounter a big challenge about various resources such as financial resources in association with creativity. In another way, while the material resources are important for creativity, in some cases the restriction or availability of material resources may have a negative effect on creativity. In other words, lack of material resources could really cause encouraging creativity. Managers should assure that required resources for working are reasonably available for staff.

Managers, who empower staff and make them more creative, act as the backup defenders of a football team rather than forward players. They are mostly resource providers and problem solvers and don't act as a guide or leader that much. Therefore, empowerment and assisting staff

in their way to reach their goals are one of the fundamental missions of managers. Managers, who try to provide required resources to enhance staff abilities, attempt to assure that their staff receives the sufficient and consistent education and experience of professional development (Nave Ebrahim, 1386:75)

REPRESENTING CONCEPTUAL MODEL

A valuable thought is neither developed in a vacuum condition nor will it. Thus, existence of a desirable organizational environment is of the essence to develop new ideas and thoughts. Nowadays, creativity and innovation is not considered as a feature that is better to have it rather than lack it and also it cannot just be found in some peculiar people. But, creativity and originality are vital and prominent discussions in the leader organizations of business that try to survive in competition with others and remain pioneer. This is because of the fact that creativity is of paramount importance as structure flexibility base and originality and innovation ability. Organizations that fail in noting the effective factors of organizational success will encounter some difficulties in their viability (cook, 1998, p 24) Staff creativity would lead to organizational survival (Amabile, 1996) just in the case that they were innovative in their works and represent and also utilize new and beneficial ideas about productions, function, service or organizational procedures (Oldham, 2002; Shali and Gilson, 2004). The results of this study show that there is a relationship between organizational factors and the amount of creativity. In the form of conceptual model of study which is obtained by investigating creativity literatures and some factors of organization field, the model consists of five variables of creativity, organizational structure, rewarding system, required resources, leadership approach and education.

RESEARCH QUESTIONS

MAJOR QUESTION

Which variables of organizational factors have positive effect on creativity?

MINOR QUESTIONS

- 1. What is the effect of leadership approach on creativity?
- 2. What is the effect of organizational structure on creativity?
- 3. What is the effect of rewarding system on creativity?
- 4. What is the effect of required resources supply on creativity?
- 5. What is the effect of education on creativity?

RESEARCH PURPOSES

- 1. Recognizing the effect of organizational factors on creativity
- 2. Studying the approach of leadership and its effect on creativity

- 3. Studying organizational structure and its effect on creativity
- 4. Recognizing rewarding system and its effect on creativity
- 5. Investigating the required resource supply and its effect on creativity
- 6. Investigating education and its effect on creativity

RESEARCH HYPOTHESES

Research hypotheses are represented in two major and minor groups.

MAJOR HYPOTHESIS

Organizational factors have positive effect on creativity.

MINOR HYPOTHESES

- 1. Leadership approach has positive effect on creativity.
- 2. Organizational structure has positive effect on creativity.
- 3. Rewarding system has positive effect on creativity.
- 4. Required resource supply has positive effect on creativity.
- 5. Education has positive effect on creativity.

METHODOLOGY

TYPE AND METHOD OF RESEARCH

According to the subject and purpose of this study, it is an applied research with a descriptive method.

DATA COLLECTION METHOD

In order to gather data in this study a questionnaire and for theoretical basis and review of literature the library method of study were applied.

DATA ANALYSIS METHOD

After gathering data by using a questionnaire, it was analyzed by SPSS 18. Statistical methods like descriptive and inferential were applied as follows:

DESCRIPTIVE STATISTIC: it's like the calculating the abundance averages, standard deviation, percentages, tables and diagrams.

Inferential statistics: Freedman ranking test, Pearson correlation test (based on normal data condition).

STATISTICAL POPULATION

Statistical population of this study is consist of 132 people of Urmia Jahad Daneshgahi staff of back up, educational, cultural, and research department.

STATISTICAL SAMPLE

Since statistical sample is limited and confined, questionnaires were distributed among all members.

SUBJECTIVE SCOPE OF STUDY

An important thing in this study is to investigate the effect of organizational factors on creativity of Jahad Daneshgahi and expressing the solutions and suggestions. Therefore, issues related to organizational factors effective on creativity have formed the subjective scope of the study.

LOCATION SCOPE OF STUDY

Urmia Jahad Daneshgahi is the location scope of this study.

TIME ZONE OF THE STUDY

The collected data is related to the first half of 1391.

- 1) Responders' sensitivity and the possibility of insincere responding to the questions.
- 2) Low amount of motivation and tendency of some people to answer the questions.
- 3) Determining the extent of research scope.

DEFINING KEY WORDS CONCEPTS AND EXPRESSIONS

CONCEPTUAL WORDS DEFINITION

- 1) **CREATIVITY:** creativity includes utilizing subjective capabilities to develop an idea or concept (Kizer, 1968)
- 2) **LEADERSHIP:** leadership includes any measurements to tempt people for enthusiastic working in order to reach determined goals (Kate Davis 1981).
- 3) ORGANIZATIONAL STRUCTURE: organizational structure is one of the organization's dimensions which aim at sharing jobs among organizations' members and coordinating them. (Moghimi, 1385:196)

- 4) **REWARDING**: people do some jobs because they want to meet their needs. People think about the result and reward that they will achieve. Most of the rewards are considered as the most effective motivational tools (Robins, 1377:363) and these rewards are the answer to this question that how is it possible to make staff do creative and special jobs.
- 5) **RESOURCE SUPPLY:** Amabile (1998) believes that time and money are two major effective resources on creativity. Managers must act precisely in allocating resources. Decision making about the amount of time and money allocated to a group or project as well as appointing people to suitable jobs is a complicated judgment that can conclude to encouraging or suppressing creativity.
- 6) **EDUCATION:** Education is equipment through which organizations determine a range and in that their human asset considers as their sustainable asset (Abbaspour, 1384:166). To have creativity, we need two types of acquisitive knowledge entitled experimental and factual knowledge and are obtained through education. Creativity development requires some conditions and special educations. Educating and guiding organization personnel are assisting factors of creativity and innovation in organization.

DATA ANALYSIS OF STUDY

DEMOGRAPHIC CHARACTERISTICS OF STUDY POPULATION

AGE GROUP OF STUDY POPULATION

As it is demonstrated in the table, statistical population of study are classified in three age groups of 20-35, 36-50, and 51-higher. 99 people of 132 statistical populations are in 20-35, 29 people are among 36-50 and 2 people are in the last age group. Most of staff and statistical population of study are in 20-35 age range and we can say that they are rather young.

TABLE 6: AGE GROUP OF STUDY POPULATION

Number	Age range	Frequency	Frequency percentage
1	20-35	99	76
2	36-50	29	22
3	51-higher	2	1
Total	•	130	100

120 100 80 60 40 20 0 50-higher

DIAGRAM 1: AGE GROUP COMPOSITION OF STATISTICAL POPULATION

Resource: research data

20-35

THE NUMBER OF STATISTICAL POPULATION OF STUDY

The total number of statistical population was 132 consisting of 72 men and 58 women that shows the number of men was more than women and 2 people didn't give back the questionnaire.

36-50

TABLE 7: THE NUMBER OF STATISTICAL POPULATION OF STUDY

Number	Population	Frequency	Frequency percentage
1	Men	72	55
2	Women	58	45
Total		130	100

80 70 60 50 40 30 20 10

DIAGRAM 2: GENDER COMPOSITION OF STATISTICAL POPULATION

Resource: research data

0

The composition of education of statistical population

men

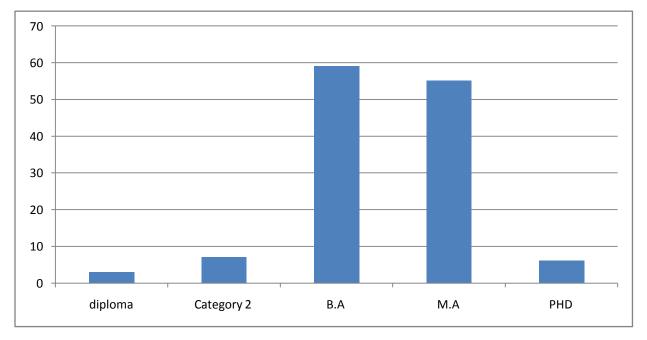
Table 3 demonstrates the composition of education of statistical population. As it is observed, the population consists of 132 people who hold five levels of education including diploma, collegiate, B.A, M.A, and PHD. According to table's data most of the population i.e. 59 people hold B.A and 55 of them have M.A. 2 people didn't give back the questionnaire.

women

TABLE 8: LEVEL OF EDUCATION OF STATISTICAL POPULATION

Number	Level of education	Frequency	Frequency percentage
1	Diploma	3	2.5
2	collegiate	7	5
3	B.A	59	45
4	M.A	55	42
5	PHD	6	5

DIAGRAM 3: LEVEL OF EDUCATION OF STATISTICAL POPULATION



Resource: research data

PRECEDENT INDEX OF RESEARCH POPULATION

Table 4 demonstrates the composition of staff precedent in statistical population. They are classified in groups of 1-10, 11-20, and 21or more according to their precedent. 97 people have 1-10 years, 17 people 11-20 and 16 people 21 or more years of experience. By investigating data in the mentioned table it is understood that most of the statistical population in the first group has the working experience of less than 10 years.

HYPOTHESES TESTING

Hypothesis 1(H1): leadership approach has positive effect on creativity

The opposite hypothesis (H0): leadership approach doesn't have positive effect on creativity.

Table 9: the effect of leadership approach on creativity (correlation)

Creativity	Leadership approach		
0.725	1	Pearson correlation	Leadership approach
0.000	0	Sig (1-tailed)	
130	130	N	

SPSS result is an output since Sig is less than 5%. Thus, H0 is disapproved and H1 is approved. Accordingly, it can be 95% said that leadership approach affects positively on creativity and has a significant relation with it.

HYPOTHESIS 2 TESTING

Research hypothesis: organizational structure has a positive effect on creativity. H1: p#0

Opposite hypothesis: organizational structure doesn't have a positive effect on creativity. H0: p=0

CORRELATION

TABLE 10: THE EFFECT OF ORGANIZATIONAL STRUCTURE ON CREATIVITY (CORRELATION)

Creativity	Organizational structure		
0.936	1	Pearson correlation	Organizational structure
0.000	0	Sig (1-tailed)	
130	130	N	

Resource: research data

According to Sig that is less than 5%, H0 is disapproved and H1 is approved. Therefore with 95% confidence we can say that Organizational structure has a positive effect on creativity and has a significant relationship with it.

HYPOTHESIS 3 TESTING

RESEARCH HYPOTHESIS: rewarding system has a positive effect on creativity. H1: p#0

OPPOSITE HYPOTHESIS: rewarding system doesn't have a positive effect on creativity. H0: p=0

CORRELATION

TABLE 11: THE EFFECT OF REWARDING SYSTEM ON CREATIVITY (CORRELATION)

Creativity	rewarding system		
0.721	1	Pearson correlation	rewarding system
0.000	0	Sig (1-tailed)	
130	130	N	

According to Sig that is less than 5%, H0 is disapproved and H1 is approved. Therefore with 95% confidence we can say that rewarding system has a positive effect on creativity and has a significant relationship with it.

HYPOTHESIS 4 TESTING

RESEARCH HYPOTHESIS: required resource supply has a positive effect on creativity. H1: p#0

OPPOSITE HYPOTHESIS: required resource supply doesn't have a positive effect on creativity. H0: p=0

CORRELATION

TABLE 12: THE EFFECT OF REQUIRED RESOURCE SUPPLY ON CREATIVITY (CORRELATION)

Creativity	required resource supply		
0.645	1	Pearson correlation	required resource supply
0.000	0	Sig (1-tailed)	
130	130	N	

Resource: research data

According to table 12 the amount of Sig is less than 5%, H0 is disapproved and H1 is approved. Therefore with 95% confidence we can say that required resource supply has a positive effect on creativity and has a significant relationship with it.

HYPOTHESIS 5 TESTING

RESEARCH HYPOTHESIS: education has a positive effect on creativity. H1: p#0

OPPOSITE HYPOTHESIS: education doesn't have a positive effect on creativity. H0: p=0

CORRELATION

TABLE 13: THE EFFECT OF EDUCATION ON CREATIVITY (CORRELATION)

Creativity	Education		
0.599	1	Pearson correlation	education
0.000	0	Sig (1-tailed)	
130	130	Sig (1-tailed)	

According to table 12 the amount of Sig is less than 5%, H0 is disapproved and H1 is approved. Therefore with 95% confidence we can say that education has a positive effect on creativity and has a significant relationship with it.

MAJOR HYPOTHESIS OF STUDY

Organizational factors have positive effects on creativity.

RESEARCH HYPOTHESIS: organizational factors have positive effects on creativity. H1: p#0

OPPOSITE HYPOTHESIS: organizational factors don't have positive effects on creativity. H0: p=0

TABLE 14: THE EFFECT OF ORGANIZATIONAL FACTORS ON CREATIVITY (CORRELATION)

Organizational Factors		
1	Pearson correlation	organizational factors
	Sig (1-tailed)	
	N	
	Organizational Factors 1	Pearson correlation Sig (1-tailed)

TABLE 15: THE EFFECT OF ORGANIZATIONAL FACTORS ON CREATIVITY (CORRELATION)

Creativity	Organizational Factors		
0.639	1	Pearson correlation	organizational factors
0.001	0	Sig (1-tailed)	
130	130	Sig (1-tailed)	
1	0.639	Pearson correlation	Creativity
0	0.001	Sig (1-tailed)	
130	130	N	

According to the amount of Sig which is less than 5%, H0 is disapproved and H1 is approved. Therefore with 95% confidence we can say that organizational factors have positive effects on creativity and have a significant relationship with it.

FRIEDMAN TEST

This testing is used to investigate the significance of variables' ranking.

The average rank of independent variables in study is the same: H0

The average rank of independent variables in study is not the same: H1

Test statistic (a)

TABLE 16: FRIEDMAN TEST

N	130
Chi-square	320.114
DF(degree of freedom)	4
Asymp.sig	0.000

A. FRIEDMAN TEST

By 95% certainty and because of the fact that the level of significance (0.000) is less than error degree (0.05), it is said that H1, which expresses the average rank of independent variables is not the same, is approved.

Next table demonstrates ranking according to the level of importance and the effect of independent variables in research population.

RANKS

TABLE 13: RANKING ORGANIZATIONAL FACTORS

	Man rank
Leadership approach	3.75
Organizational structure	4.10
Rewarding system	1.60
Resource supply	2.25
Education	3.40

DISCUSSION AND CONCLUSION

In analyzing data at the first step, research population was demographically investigated briefly and in the second step a pre-test was applied to examine research hypotheses. Then all of the hypotheses or the correlation test was evaluated and according to the results all research hypotheses (both major and minor) were approved. Finally a Friedman test was used to rank all organizational components.

- Based on the first hypothesis test leadership approach has a positive effect on creativity which correlation coefficient in SPSS software between the approach of leadership and creativity in West Azerbaijan Jahad Daneshgahi is 0.725. Since this number is positive and near 1, therefore, the range of correlation is high and direct which means that as the leadership approach improves (cooperative method), the range of creativity in organization improves too.
- A Conclusion based on the second hypothesis test which shows that organizational structure has a positive and meaningful effect on creativity, expresses 0.936 ranges between organizational correlation and creativity. This means that as the organizational structure is organic and appropriate, the level of creativity in organization increases.
- Based on the analysis of the third hypothesis test, which tells that "rewarding system has a positive effect on creativity", it is revealed that the range of correlation between rewarding system and creativity is 0.721 that is a positive number and near to 1; and shows a positive correlation between two parameters. As the amount of reward corresponding with a function elevates, creativity on that organization increases too.
- Based on the analysis of the fourth hypothesis test, which tells:" required resources have positive effects on creativity" correlation coefficient is 0.645. Since this coefficient is positive and near 1, it means that there is a positive and meaningful relation between required supplies and creativity. It is concluded that, if supplies are prepared sufficiently and on time (finance, time, etc) it will provide and boost creativity in organization.
- The analysis of fifth hypothesis shows that, education has a positive effect on creativity. As correlation coefficient shows (0.559), by rendering training and providing education it could be possible to create and elevate creativity in Jahad Daneshgahi.
- Based on the main hypothesis which was about analyzing the organizational factors on creativity, the relation and its effect was positive, and it is concluded that if organizational factors in Urmia Jahad Daneshgahi is provided sufficiently and on time. It will bring creativity in organization. Based on ranking test, the effect of organizational factors on creativity was ranked as follows:

Rewarding system <supply < education and training < leadership approach < organizational structure

Modeling based on these results is possible. Utilizing these factors according to their rank and importance in organization elevates creativity in organization and causes problem solving and increased development. Therefore the structure of organization is in priority.

PRACTICAL SUGGESTIONS

According to one by one data analysis of research hypotheses as well as the major hypothesis, if the honorable Jahad Daneshgahi managers tend to develop creativity and increasing it, they should reinforce all of the organizational factors specially based on their rank and priority to increase the amount of organizational creativity in Urmia Jahad Daneshgahi.

FURTHER SUGGESTIONS

- 1. It is recommended to researchers to study other effective factors of creativity like interpersonal factors, and environmental factors that include other group and out of organization factors.
- 2. It is recommended to executive managers and non- governmental company managers to study the factors other than organizational factors in their managing scope in order to develop creativity and increasing it in organization.

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