The Relationship among Organizational Culture in Denison’s Model (Adaptability) with Creative Thinking

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Abstract
Today, the psychology framework permits us to believe in that creative thinking is not intrinsic but it can be trained. By means of education we can train the children to think about abnormal solutions and deal with analysis of problems through divergent thinking and achieve appropriate solutions. The point is that we should allow the mentors to think in this field since creativity trend is not a prefabricated stream but it is a generative and changeable trend. This investigation is intended to analyze the relationship between dimensions of organizational culture based on Denison’ Model (adaptability) with creative thinking in personnel from Telecommunication Company at Tehran Post Region no 13 during year 2013-14. The major hypothesis of this study suggests that there is significant relationship between dimensions of organizational culture based on Denison’s model (adaptability) with creative thinking of personnel of Telecommunication Company at Tehran Post Region no 13. To this end, adaptability has been explored as an independent variable and also creative thinking of personnel was assumed as the dependent variable. This study is an applied research in terms of objective and descriptive methodology of this study is of correlation type. The statistical population of the present study includes all of personnel of Telecommunication Company at Tehran Post Region no 13 and simple randomized sampling method has been employed for this purpose. To analyze data statistically, SPSS software as well as descriptive and inferential statistics have been utilized. The research findings show that there is a direct relationship between dimensions of organizational culture in Denson’s Model (adaptability) with creative thinking of personnel. The minor results indicate that there is direct relationship among coordination, agreement, and fundamental values of personnel.

Key words: Organizational Culture, Denison’s Organizational Culture Dimensions, Adaptability, Creative Thinking

Introduction
The culture is deemed as the popular term for researchers in the field of anthropology. This term has been added to literature terminology of scientists in human sciences by Taylor (1832-1917) since the end of nineteenth century. Today, this term has widely spread to the extent that cultural anthropology is known as a basis for one of the behavioral sciences. The cultural anthropology is concerned with study of mutual effects among culture and humans’ acquired behavior and it forms the basis for organizational behavior. In fact, perceiving of organizational behavior is subjected to deep understanding about cultural values of community. Very generally, concept of culture denotes quality of group life that is transferred by members of human from one generation to another (Bonyanian; 2006: 25). According to Edgar Shine, culture can be analyzed as a phenomenon that has encompassed our surroundings all the time (Shine, 1991). Given this fact that organizational culture has a long history therefore it is considered as a subject, which has been newly involved in role of management and particularly organizational behavior and improvement. Since the culture has been posited to describe quality of life in human communities from the very beginning thus up to recent years it has been rarely and briefly explained about organizational culture and way of real lifestyle of members in organization (Toosi, 1993: 25).
Definition of organizational behavior
Culture is assumed as the factor for power in individual and group behavior. Organizational culture covers all forms of organizational life including interaction among personnel, doing tasks and dressing, types of decisions made in an enterprise, and organizational policies and techniques and strategic consideration. While the existing disturbance is continued about definition and boundaries of concept of culture, the ever-increasing number of the published articles are devoted to this subject (Denison; 1996: 20). Many researches in which the subject of organizational culture has been studies, have assumed as a basis and/or the common part of a generally accepted (consensus) system. For instance, Bedook and Beiti (1987) have emphasized in vitality of values. Shine (1992) discusses about the degree of importance in generally-accepted basic assumptions and Hutch (1993: 126) have explained the profitability of analysis based on mutual consent for four elements of culture.

Organizational culture dimensions based on Denison’s Model
Since several recent decades, some of thinkers and researchers have emphasized on importance of culture as general concept of world and organizational culture in its particular meaning. Term ‘culture’ was noticed by the experts in the field of anthropology and it has been assumed as basis for several studies in various fields of human sciences as well. Identifying this concept with the applied orientation is an important point regarding organizational culture rather than its importance and effect; in other words, although recognition of organizational culture is important, way of its transformation as well as way of its effect in business and activity is more important. Inter alia, the presented model by Denison includes several important characteristics. This model is very simple and transparent; it is simple in terms of perceiving the concept and also in terms of identifying various dimension of this concept. This model is fully applied and utilization of Denison’s Model in various enterprises, organizations, and units including production and service sectors and the like may confirm its application. Denison has used a model to illustrate organizational culture and this model includes four major features of organizational culture namely involvement, consistency, adaptability, and mission (Denison & Fisher, 2005; Denison and Mishra, 1995, 1998; Schmidt and Jackson, 2005). These four characteristics are expressed within the framework of clear practices, which are related to four features of organizational culture and they originate from the prevailing beliefs, values, and assumptions over the organization and they are strengthened by them. These administrative activities are measured by means of 12 parameters, which constitute the model. In other words, each of cultural features is measured by three parameters of administrative activity (Monavarian et al, 2008: 102).

Adaptability denotes the values and systems, which form the basis of a strong culture.
The integrated organizations are highly tended to effectiveness because of enjoying stable, coordinated, and integrated culture. In this type of organizations, behavior of members stems from a group of core values and their followers enjoy high skill to achieve agreement even over the complicated issues. The integrated organizations formulate a tendency and group of organizational systems, which create an internal system based on support and agreement of both sides and they have personnel with commitment at high level, a system of core values, a separated method to implement works and a group of requirements. The integration creates a strong culture based on a common system of beliefs, values, and signs, which are perceivable perfectly for members of organization and based on the internalized values, this system of implicit and intangible control can act as an efficient device to achieve coordination and integration compared to external control systems, which depend on rules and regulation of the method. The power of these operational technique is ascertained when the organizational members are exposed unfamiliar achievements. Integration enables the personnel to show appropriate reaction to an unpredictable environment (focusing on value-driven principles) in predictable manner (Denison, 1990, 1996; Denison and Mishra, 1989).

The parameters of adaptability feature (stability and integration) are as follows:

- Coordination
- Agreement
- Core values

**Coordination and integration:**
In organizations with culture of coordination and integration at high level, the organizational districts and units enjoy well the ability for working together in order to achieve common goals (Davenport & Sawfold, 1998). The coordination and integration parameter are composed some cases as follows:

- Our method for doing the work is sustainable and predictable.
- There is a suitable composition of goals in the organization at different level.
- The members possess the common attitude and outlooks in different organizational units.
- Creating coordination for projects is an easy task in task-oriented units of this organization.
- Working with a person in another unit in this organization is similar to working with a person in different organization.

**Agreement:**
The allied organizations possess the high potential to acquire consensus and unanimity even over the sensitive issues. Agreement also includes both its latent level and ability to cover the disputes when they occur (Fey & Denison, 2003; Clack, 1993).

The agreement parameter is composed the following cases:

- When disagreement takes place, we seriously try to acquire the solutions, which both sides to achieve the benefits.
- This organization possesses strong culture.
- There is obvious agreement about the proper and wrong ways of doing tasks in this organization.
- Achieving consensus is an easy task for us even in difficult issues.
- We often encounter problem over achieving agreement about key issues.

**Core values:**
Core values are a group of common values in an organization that create a strong sense of identity and a clear group of expectations (Black, 1993).

The parameter of core values is composed of some cases as follows:

- There is clear and stable group of values in this enterprise that organizes way of doing our tasks.
- There is special administrative method and a separated group of management activities in this organization.
- In this organization, the directors do what they say.
- Ignoring the organizational core values will be problematic for the personnel.

**Concept and definitions of creative thinking:**

**Creative Thinking**
One of numerous techniques of thinking is conscious thinking about sentences and observations, which are called creative thinking. The creative thinking is a type of thought that its major characteristic consists of ability to abandon the unnecessary assumptions and generating the original thoughts. Such thinking may be called the platform for training creativity or ‘Free Game Concepts’ and it is focused on the requisite for
creative thinking and getting rid of chains and restrictions, which are imposed by real objects (Amir Hosseini, 2005: 17).

The psychologists have tried to characterize the specifications of the persons with creativity at high level. Stirs have expressed the following features for creative persons:

1- Mental and perceptional health: Ability to create a lot of ideas quickly;
2- Flexibility of perception: Potential for leaving a certain mental rule and framework;
3- Innovation: Ability in creation and proposing new suggestions;
4- Preference of complexity to simplicity: Paying attention and considering new challenges in complex problems;
5- Independent view and judgment: Being different from colleagues in proposing new comments and ideas (Mohammadi, 2005: 4).

Looking at the valid sources about creativity, innovation, and creative thinking indicates that this term stems from intellectual type and method of human. In fact, creative person is someone, who enjoys inquisitive and creative mind. MacKinnon also considers creativity as problem solving with a novel and innovative nature. Mumford and Gustav Fone (Ausubel, 1993: 99-110) deem the creativity as a peerless talent in certain field and from Gilford’s view, intelligence and creativity are considered as two separate intellectual factors and he assumes intelligence as convergent thought and also the creativity as divergent thinking. In his view, the distinction aspect of creative thought from divergent thinking can be identified through flexibility, originality, and mental faculty (Seif: Psychology of learning and teaching). Several and often opposite definitions have been posited regarding concept of creativity but a general consensus has been observed regarding the following definition:

Creativity is the individual capability to produce new ideas, theories, insights, and or new and novel objects as well as reconstruction in sciences and other fields, which are assumed as original and valuable in terms of scientific, aesthetics, technological, and social aspect by the experts (Vernon, 1989: 94). Likewise, in Holy Quran, the term ‘creation’ has been interpreted as capture (“And He has made subservient to you whatsoever is in the heavens and whatsoever is in the earth, all, from Himself...”) (Jasiyeh Sura 45: 13). In other words, God granted power to natural phenomena so that human can capture them by means of his/ her dominance and governance and create transformation and construction in them. Fredrich Froebel is one the well-known creative mentors and trainers addressed the subject of creativity and asked if the creativity was an internal process or external one and if it is required discipline or self- motivation. He believed that creativity is one the paramount requirements for humans. Based on viewpoint from William James, all of us possess potential and talent for creativity but unfortunately we are learning during our life time and path of training to be non- creative. In other words, we are accustomed to convergent thinking generally throughout the learning environment whether of home, school, and our community (Sprint Hall, 197: 576).

He argues that childhood is considered as the start point of formation of creative thinking trend (ibid: 517). In Pieron Psychology Dictionary, creativity is defined as follows: Creativity is the inventive action of constructive imagination where according to theories of Getzels and Jackson, some of researchers (Wilson, 1956; Cruchfield, 1962) assume creativity the opposite point of coordination as something beyond the normal intelligence and based on their opinion, the creativity denotes original ideas, different theories, and different method of looking at subjects. Many psychologists have considered creativity and problem solving as similar processes (Mayer, 1930, Torrance, 1960; Dechecko, Crawford, 1974; Ganier, 1977; Gage Webliner, 1984). Ganier assumes problem solving as the learning highest level and argues that creativity is a special type of problem solving. Theorists of psychology also maintain that the creativity is caused by internal stimulation state. Cruchfield (1962) and Decharmes (1968) argue that the behaviors, which are motivated internally, may be due to a type of enthusiasm to experience an activity. Creative thinking requires high mental processes and judgment based on evidences and proofs. Creative thinking is a deductive and deliberative thinking about what we believe and what we do (Anis, 1985: 46). Theory of Robert Karplus et al (1978:63) has presented five types of writing skills to train creative thinking; namely, it can analyze information experiences by the aid of reason and logic includes insight and cognition and at the same it is
been based on one of well-known tools in measurement of critical thinking i.e. California Critical Thinking Skills Test (CCTST) and it can be employed as one of the theoretical models of course with measurement within the framework of scientific tests in our country to train critical thinking to students in human sciences. The items in this theory include: 1) Summarizing: Namely an abstract and not the intensive summary as processing of concepts and subjects along with order preference technique; 2) Analysis based on certain criteria; 3) Practice for problem solving to encounter the problems; 4) Implementation of projects outside the class; and 5) Simulation based on the existing and given realities (Abily, 1995).

**General conclusion**

In this chapter, the researcher analyzed theoretical and practical bases of organizational culture and creative thinking. Overall, it is generally concluded from this chapter that the organizational culture and creative thinking are two very important topics in organizational achievement and effectiveness so that by evaluation of researches and studies, one may come to this result that organizational culture and creative thinking are significantly related to each other and both of them may be noticed by the researchers in improvement of efficiency and effectiveness of the organization. But this point is important that with respect to studies done by the researcher and also given the second chapter, here type of the relationship among these two very important subjects is not characterized in world of management but this point is addressed here that although studies have confirmed the significance of relationship between these two parameters, it is not clear that which of them is independent and which one is dependent. The organizational culture should be strong at first place; namely, the basic aspect of this culture should be seriously accepted by unanimous majority of organizational members and at the same time it should possess certain key features according to environmental conditions. For example, it should include human’s values with paying attention to quality, creativity, and other required values based on the environmental conditions. The studies have shown that the relationship among organizational culture and creative thinking and their effectiveness is not necessarily uniform and they implied that the cultural values are detailed and complex and they control a wide range of organizational behavior. If cultural controls are exerted increasingly and very seriously probably cultural models may show some prohibitions and this reduces performance since it could not the related behavioral norms proportional to environmental changes. Therefore, the strong culture should be adapted to (internal and external) conditions and lack appropriate adaptability between cultural values and organizational goals and obligations with environmental conditions will be led to reduction in effectiveness and efficiency. Hence, nature and content of values are considered as major factors in organizational culture, which affect on creative thinking and various characters and variables in organization that can prepare the ground for success and failure in an organization.

**Methodology**

In the present investigation, the researcher deals with study and data collection about ideas and beliefs (organizational culture) of organization and their relationship with their creative thinking in Telecommunication Department at Tehran Post Region no 13. The descriptive research is implemented only for identifying the existing conditions by assistance to process of decision making. Inferential study is a type of research in which the hypothesis is tested and finally it is aimed at conducting inference that can be done to generalize the results to the given population. Whereas the relationship among two variables is one group of this unit is analyzed in this study thus the research is of correlation type. The current study is of descriptive type in terms of method and of survey type of research. Descriptive research may be executed only for further identifying the status quo or giving assistance to process of decision making. Most of researches in behavioral sciences can be assumed as descriptive study (Sarmad et al, 1997: 81).

**Statistical population and statistical sample**

Therefore with respect to time and place range, the statistical population of this study includes 834 personnel of Telecommunication Company.

**Sampling method and sample size**

The simple randomized sampling method has been employed in this methodology. Utilization from simple randomized sampling is mainly at selection of sample and data collection so that the given results could be generalized to a great population with calculation of error values (it can be determined by means of statistical methods) (Delevan, 2002). Krejcie- Morgan’s Sample Size Table has been utilized to determine
sample size in the current survey where according to the given table, research population comprised of 834 participants out of them 346 respondents were elected.

**Data collection method**

To gather data: 1) Librarian technique: It was employed. This technique has been used to analyze and study on theoretical bases of research subject, history, and achievement of primary information by means of books, theses, domestic and foreign journals, and internet; 2) Questionnaire technique: This method has been utilized by means standard questionnaire as measurement tools and in order to collect the relevant data to this research. In this project, librarian and internet studies were used to gather theoretical bases and research literature and in order to collect data from research samples, two questionnaires of organizational culture and creative thinking were employed.

**Research results**

**Analysis of demographic variables**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Data frequency</th>
<th>Frequency percentage</th>
<th>Cumulative frequency percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>135</td>
<td>26.8</td>
<td>26.8</td>
</tr>
<tr>
<td>Male</td>
<td>205</td>
<td>73.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Unanswered</td>
<td>6</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>346</td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

With respect to above table and diagram, the highest percent (73.2%) of respondents are males and lowest percent of them (26.8) are females and (1.9%) of respondents did not answer to this question.

**Distribution of respondents’ age**

<table>
<thead>
<tr>
<th>Age group</th>
<th>Quantity</th>
<th>Percentage</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29 years</td>
<td>92</td>
<td>26.5</td>
<td>27.1</td>
</tr>
<tr>
<td>30-39 years</td>
<td>183</td>
<td>52.9</td>
<td>81.2</td>
</tr>
<tr>
<td>40 and older</td>
<td>65</td>
<td>18.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Unanswered</td>
<td>6</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>346</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Diagram 3
With respect to above table and diagram, the highest percent (52.9) of respondents were at ages (30-39) while the lowest percent of them (18.4%) were older than 40 and also (2.2%) of respondents did not answer to this question.

Marital status of respondents

Table 3: Distribution of marital status among respondents

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Quantity</th>
<th>Percentage</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>283</td>
<td>81.6</td>
<td>92.5</td>
</tr>
<tr>
<td>Single</td>
<td>24</td>
<td>6.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Unanswered</td>
<td>39</td>
<td>11.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>346</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Diagram 4
With respect to Table and Diagram (4), the maximum percent (81.6%) of respondents were married persons and the minimum percent of them (6.6%) were single while (11.8%) of respondents did not answer to this question.

Educational degree in respondents

Table 4: Distribution of educational degrees in respondents

<table>
<thead>
<tr>
<th>Education</th>
<th>Quantity</th>
<th>Percentage</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower than diploma and diploma</td>
<td>12</td>
<td>4.4</td>
<td>4.4</td>
</tr>
<tr>
<td>Associate's Degree AA</td>
<td>78</td>
<td>21.3</td>
<td>25.9</td>
</tr>
<tr>
<td>Bachelor's Degree BA</td>
<td>215</td>
<td>65.4</td>
<td>91.9</td>
</tr>
<tr>
<td>Master's Degree MA</td>
<td>38</td>
<td>8.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Unanswered</td>
<td>3</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>346</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
With respect to Table and Diagram (4), the maximum percent (65.4%) of respondents had the Bachelor’s Degree (BA) and the minimum percent (4.4%) of them had high school diploma and lower degrees while (0.7%) of respondent did not answer to this question.

**The rate of creative thinking in personnel**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Standard deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative thinking</td>
<td>59.41</td>
<td>61.35</td>
<td>7.61</td>
<td>48</td>
<td>101</td>
</tr>
</tbody>
</table>

Similarly, descriptive statistic about creative thinking of personnel has been briefly given in Table (5). The mean value of sum of figures was calculated 59.41 in which the median and standard deviation were derived with minimum 48 and maximum 101 respectively as 61.35 and 7.61.

There is a significant relationship among adaptability and creative thinking of personnel. (H0: p = 0).

<table>
<thead>
<tr>
<th>Personnel’s creative thinking: Correlation coefficient</th>
<th>1</th>
<th>0.899 **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity</td>
<td>346</td>
<td>346</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adaptability: Correlation coefficient</th>
<th>0.899 **</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significance level</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td>Quantity</td>
<td>346</td>
<td>346</td>
</tr>
</tbody>
</table>

This hypothesis denotes the rate of adaptability with personnel’s creative thinking in which Pearson’s correlation was used. With respect to correlation value (0.899) that is very strong intensity and the derived least significance level (0.00< 0.05) is smaller than 0.05 and as it also observed in the diagram, accumulation of points signifies the effect of independent variable on dependent variable. Thus, we conclude that the research hypothesis is confirmed. Namely, there is positive relationship among the existing adaptability with creative thinking in personnel.
Results based on research findings

During recent decades, term ‘organizational culture’ has been widely used in management texts and it is extremely focused on creating changes and developments institutes and in improvement of their efficiency. The exerted changes show that the organizational culture may be assumed as a source for mobility, dynamism, and innovation, and/ or a barrier against path of their progress (Davis; 1994: 30).

Therefore, this study has been carried out in order to identify the relationship among organizational culture of Denison’s model with creative thinking of personnel from Telecommunication Company at Tehran Post region no 13 in 2014. Furthermore, in order to analyze organizational culture, four components of organizational culture (adaptability) have been employed according to the proposed model y Denison. After gathering questionnaires the given data were analyzed by means of SPSS software. Cronbach alpha formula was used to determine reliability of measurement tools and in order to identify their validation the face validity has been utilized and verified by the respective academic advisors and supervisors.

The organizational culture and creative thinking are related with each other in personnel of Telecommunication Company at Tehran Post Region no 13.

Result: There is the relationship among organizational culture in Denison’s Model and creative thinking of personnel based on Pearson’s correlation coefficient. The significance level of test has been confirmed with zero degree in which the research hypothesis is confirmed with confidence interval 90%. Namely, there is direct and positive and significant relationship among organizational culture and creative thinking in personnel of Telecommunication Company.

Discussion and Interpretation

With respect to verification of research major hypothesis, it can be concluded that the governing culture over Telecommunication Company at Tehran Region 13 is a type of culture that can improve creative thinking in their personnel if it is strengthened. Findings from this study are consistent with the results of following researches and they have achieved similar findings.

In personnel of Telecommunication Company at Tehran Post Region no 13, there is relationship among adaptability and creative thinking variables.

Result: This hypothesis denotes the rate of adaptability in relationship with rate of creative thinking of personnel for which Pearson’s correlation coefficient was used. With respect to correlation value (0.899) that enjoys very strong intensity while the derived least level of significance (0.00<0.05) is smaller than 0.05. With respect to data listed in Table (4-2-2), there is relationship among variables of adaptability and creative thinking of personnel based on Pearson’s correlation coefficient and the given significance level is zero. The research hypothesis is verified within confidence interval 95%. In other words, there is direct and positive and significant relationship among adaptability and rate of creative thinking of personnel from Telecommunication Company.

Discussion and interpretation

Therefore, it can be concluded that based on the parameters in this culture, adaptability includes coordination and integration, agreement, and core values that increases creative thinking in that personnel while adaptability culture play great role in improvement of creative thinking of personnel in organizations.

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