Journal of American Science

Websites:
http://www.jofamericanscience.org
http://www.sciencepub.net

Emails:
editor@sciencepub.net
sciencepub@gmail.com

MARSLAND PRESS
Multidisciplinary Academic Journal Publisher

The Survey of the Effect of organizational Culture on Creativity and Innovation based on the EFQM Procedure
(Case of Study: Fakour Industrial Company)

Reza Radmehr[1], Ehsan Taghizadeh[2], Mahdi Shalikar[3]

[1.] M.A. in Management, University of Isfahan, Isfahan, Iran
[2.] M.A. in Industry Engineer, Islamic Azad University, Isfahan, Iran
[2.] M.A. in Management, Islamic Azad University, Kermanshah, Iran
rezaradmehr66@gmail.com

Abstract: The organizational culture means the character for an organization. Culture consists of values, norms, abstract and concrete signs and the symbols of the organizations. Based on the importance of the organizational culture and that the functional, efficient human work forces, are limited, times consuming and costly, the managers should get the fact that these workforces are significant. But, most managers are just ignoring these facts. In this respect, this project or research has tried to survey the relationship between organizational culture, creativity or innovation based on the model about the organization Excellency. This project is consisting of all the personnel of Fakour industrial company. The personnel consist of all the managers, experts and the employees of 141 people. The approach of getting or gathering data on theoretical aspects were from libraries and internet, and the data were taken through questionnaires. In order to describe the data, SPSS software has been used. Also, in order to survey whether the community statistics is normal or not, multi variable model has been used, and the AMOS software has been used to perform the model analysis. The results of the research show that first the model, which has been used, is really suitable for this case, and second, the findings show that the organizational culture, creativity and innovation were favorable, and also the organizational culture had a positive, direct effect on the creativity and innovation.

[Reza Radmehr, Ehsan Taghizadeh, Mahdi Shalikar. **The Survey of the Effect of organizational Culture on Creativity and Innovation based on the EFQM Procedure.** *J Am Sci* 2025;21(4):1-7]. ISSN 1545-1003 (print); ISSN 2375-7264 (online). http://www.jofamericanscience.org. 01 doi:10.7537/marsjas210425.01

Keywords: Organizational Culture, Creativity, Innovation, EFQM.

1. Introduction

These days, most people believe that cultures and population to change in form the organizations, so the success and failure of the organizations are obtained by the organizational culture. Robbins (2005) has defined culture this way: culture is a system of concepts and beliefs shared among the personnel in an organization which more or less assign the behaviors and performances in organization (Robbins, 2005). On the other hand, the continuous of the recent decades and the complexity of the environmental aspects and the dynamic factors make us unaware of the situation, so we can't get flexibility and enough innovations to improve the organizations. In today's era of scientific developments, which are causing human's developments, the need for creativity and innovations is a must for society's progress. Creativity means getting away from the thoughts based on habits. In other words creativity is freedom from the imaginative habits, (Samad Aghaei, 1383). So, as the different aspects of the cultural factors are setting or assigning the vital necessities, the favorable culture in the organization will be the most important things for creativity and innovation. The lake of a suitable organizational culture, which is necessary to make creativity or innovation, is a basic problem for most companies and organizations in the country. Based on the above-mentioned descriptions, this research is trying to find the kind of organizational culture dominant in the industry and their effects on the organizational creativity and innovations based on EFQM procedures.

2. Literature Review

2.1. Organizational Culture

Culture consists of the obvious findings among human communities, and these findings are turned into concepts in, for example, statues and handy crafts. The basic foundations of the culture, which are traditions, and the attitudes, are interdependent. Cultural systems can be, on one hand, the factors to form the behavior and actions among the people. So, the factors to form the behaviors and actions among the people. So, the variety or change in the culture of one organization is a triviality since we need to make change in people's thoughts,

relationships, and their work habits, (Kim and Lee, 2010). The organizational culture consists of a group value, beliefs, concepts and analyses of different ideologies and thoughts which are common among people. These are naturally given to the beginners in an organization. Culture is the part of the unwritten, but concrete facts in an organization. The aim of the culture is to give the members an identity and to create values and beliefs in their commitments. The traditional values make reinforcement and stability for the organization. These factors make the beginners find the procedures and conceive those (Daft, 2006). The organizational culture makes an identify for the organizations and creates high values for them. Although different ideas and opinions in the organizations may evolve, it's always the managers and high executive directors who set the organization goals. There goals assign the basic procedures and strategies. These procedures and strategies finally make up the organizational culture, and also, reflect the founders' attitudes (Draft, 2006). On the whole, culture means shared values and beliefs affecting the members in an organization (Ilmaz and Oregan, 2008). The organizational culture consist of: ceremonies, festivals, signs and symbols and a special communication language used in an organization (Daft, 2006).The organizational culture, on one hand, relates the internal components, and one the other hand, is a separating factor among organizations(Toulfu and Walzawik, 2008). In another definition for the organizational culture, we observed the fact that the organization culture consist of a symbol of basic assumptions which have been well defined and surveyed. So, this is a solution for the problems of the members in an organization (Ilmaz and Oregan, 2008).

2.2. Creativity

Creativity is one of the problems about which there has not so far been identified and defined in shared aspect. The reason for this difference is that the concept of the creativity is something abstract and new. But, this ambiguity is not itself the process of creativity, since we can touch and feel it in our daily life. Also, we can consist them as our trivialities, for they are concepts, which we see them all the time and finally they become commonplace. But, as they are so, their definitions become harder and harder. The following are some definitions of creativity:

- Creativity means the process for change, development and promotion in the mental processes (Samad Aghaei, 1383).
- Creativity means the ability to mix ideas in a specific way or to create a relationship among ideas (Zarei Matin, 1373).
- Creativity means seeing in another way (Samad Aghaei, 1383).
- Creativity means using mental abilities to create a new thought or concept (Rezaeian, 1385).
- Henri Poincare, The great French mathematician (1948) thinks that creativity is recognizing, identification, observing, conceiving and selecting a process (Anvari and et al, 1383).
- Webster dictionary defines creating as the ability to do an innovative action which creates a new product or a new service in a way that is it has been taken from a talent or from on education tool (Mottaghi, 1383).

2.3. Innovation

Innovation has been defined in different ways. The Latin translation for the word «innovation» has been making a new thing. Based on Webster dictionary, innovation is founding or introducing something new, being creative in economical-business activities, or getting any kind of new product or service. In short, innovation is any factor which can create any new economic value. Although innovation has got important and various usages, there is no common and shared ideology on it. Innovation is mostly regarded as a trading product or a way of producing it (Ojasa, 2008). Jimmense (2008) has regarded innovation as a process to turn ideas into new, creative and serving products or tools, so innovation is a (mental) creativity to make new instrument or tools. These definitions seem new to the organizations. In literature, these concepts are used in the same way (Martin and Turblunch, 2003; Moghimi, 1385). The key features for innovation are performance and action (Tatila and et al, 2006). Although these concepts may be the same, Cahen (1985) recognizes differences between creativity and innovation. He says that creativity is making one thing out of many other things; innovation is, rather, that thing turned into a product or service. Innovation is the successful performance of the ideas inside the organization .In this respect, people's creativity is the beginning for innovation. As a matter of fact, creativity is the vital factor for innovation, but it's not the only one (Goyal and Akhilsh, 2007). Innovation is generally together with changes, and as something causing changes, but every kind of change is not regarded an innovation. It may not be useful for the organization (Martins and Turblank, 2003).

3. Research hypothesis

1. The organizational culture and its dimensions in the place, based on EFQM, are located higher than average.

2. The creativity level in the organization in the place is over than the average.
3. The level of innovation in the organization is higher than the average.
4. The organizational culture has a positive and meaningful effect on the creativity in the organization.
5. The organizational culture has a positive and meaningful effect on the innovation.

4. Methodology

This research is a practical one and the data which is gathered is a descriptive kind and regarded as a library research. To gather the data, questionnaires have been used. The questionnaires are 5 degrees Likert from 1, very low to 5, very high, consisting of 50 questions in these parts as organizational culture, creativity and innovation .The validity of the tests has been virtual one. Also, the questionnaires have been corrected by some experts and their ideas have been taken into account. To assign the reliability of the questionnaires, SPSS software has been used with Cronbach's alpha index for all kind of questions. They are all shown in table number 1.

Table 1. Cronbach's Alpha

Factors Questionnaire	*Organizational culture*	*Creativity*	*Innovation*	*Total Factor*
Cronbach's alpha	0.908	0.858	0.842	0.873

The statistics community in this research is all the personnel in Fakour Industrial Company in 1391. The volume for the community (the number of population) is 650. Cochran formula has been used to determine the sample volume. At first, 30 questionnaires were spread and then gather among the organization's employees randomly and after calculating the standard deviation of the first sample, determining the sample volume was performed. The standard deviation value for first sample was calculated 0.684. Also the parameter value (d) has been supposed 0.1 and considering that the statistical society is 650 individuals, the sample volume has been calculated 141 individuals by using the following formula in 95% certainty level. A summary of the tools and procedures in analyzing data shown in table number 2.

Table 2. Tools and procedures in analyzing data

Methods	*Statistical tests*	*Function*	*Statistical software*
Descriptive statistics	Percentages, frequencies	Sample descriptive research	SPSS
Perceptive statistics	Structural equation modeling	Test of hypothesis	AMOS

5. Data analysis

Demographic characteristics and other items corresponding to the sample under study are shown in Table 3.

Table 3. Frequencies and percentages of participants

Demographic Variables	Categories	Frequency	Percentage
Sex	Female	4	2.8%
	Male	137	97.2%
Age	20 to 25	22	15.6%
	26 to 30	57	40.4%
	31 to 35	30	21.3%
	36 to 40	24	17 %
	41 to 45	6	4.3%
	46 or more	2	1.4%
Education	Diploma	9	6.4%
	Associate degree	12	8.5%
	B.S.	76	53.9%
	M.S. or more	44	31.2%
Job Background	5 years or less	61	43.2%
	6 to 10 years	40	28.4%
	11 to 15 years	29	20.6%
	16 to20 years	9	6.4%
	21 years or more	2	1.4%
Type of activity	Staff	39	27.7%
	Operating	49	34.7%
	Researching	53	37.6%
Type of job	Manager	36	25.5%
	Expert	85	60.3%
	Employee	20	14.2%

5.1. Evaluations and the model tests in measuring hidden variables

In this part, we get familiar with four models of analyzing data. The purpose is to talk about the model tests in measuring hidden variables; here we observe three indices called absolute fit indices, comparative fit indices and parsimonious fit indices.

Table 4. Indices measurement model organizational culture

CMIN	CMIN.DF	TLI	CFI	PNFI	PCFI	RMSEA
80.888	2.311	.887	.912	.666	.709	.097

The survey in the index about the organizational

culture shows that is needs some improvement. We can improve the indices. So, the measuring model which has been improved has changed like the picture number 1.

Figure 1. Modified model to evaluate the organizational culture

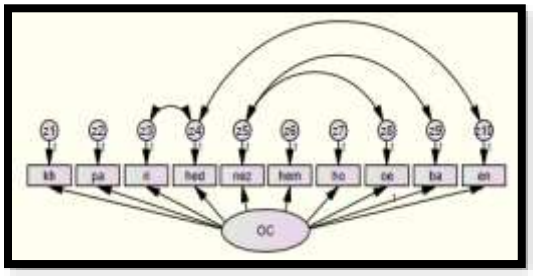


Table 5. Indices measurement modified model organizational culture

CMIN	CMIN.DF	TLI	CFI	PNFI	PCFI	RMSEA
49.741	1.605	.948	.964	.628	.664	.046

Based on the above table, the model to evaluate the organizational culture is located on a suitable situation, so it is accepted.

Table 6. Indices measurement model creativity

CMIN	CMIN.DF	TLI	CFI	PNFI	PCFI	RMSEA
101.565	2.902	.827	.865	.631	.673	.117

The survey in the index about the creativity shows that is needs some improvement. We can improve the indices. So, the measuring model which has been improved has changed like the picture number 2.

Figure 2. Modified model to evaluate the creativity

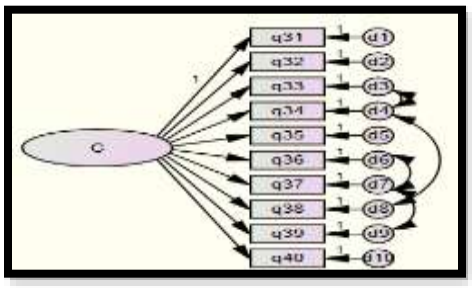


Table 7. Indices measurement modified model creativity

CMIN	CMIN.DF	TLI	CFI	PNFI	PCFI	RMSEA
92.741	1.424	.916	.902	.614	.644	.048

Based on the above table, the model to evaluate the creativity is located on a suitable situation, so it is accepted.

Table 8. Indices measurement model innovation

CMIN	CMIN.DF	TLI	CFI	PNFI	PCFI	RMSEA
61.973	1.771	.910	.930	.666	.723	.074

The survey in the index about the innovation shows that is needs some improvement. We can improve the indices. So, the measuring model which has been improved has changed like the picture number 3.

Figure 3. Modified model to evaluate the innovation

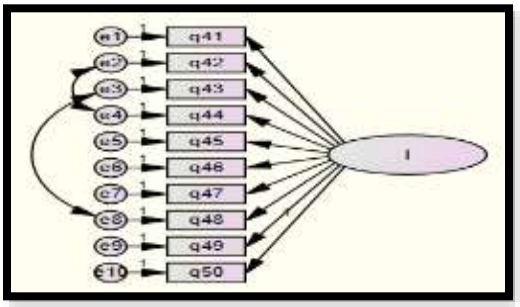


Table 9. Indices measurement modified model innovation

CMIN	CMIN.DF	TLI	CFI	PNFI	PCFI	RMSEA
46.135	1.398	.954	.966	.655	.708	.053

Based on the above table, the model to evaluate the innovation is located on a suitable situation, so it is accepted.

5.2. Analysis of the whole model

In this part, three groups of indices have been evaluated to test the whole model. The measures related to these indices for the first research model have been shown in the following table.

Table 10. Indices measurement initial model

CMIN	CMIN.DF	TLI	CFI	PNFI	PCFI	RMSEA
777.881	1.974	.773	.794	.600	.719	.083

By surveying the indices, the model needs improvement.

5. 3. Analysis of the model details

After the analysis, we figured that the model is not acceptable and it needs improvement. So, we tried to make it acceptable by improving the model through stabilizing some other parameters. So the final model of the research will be ultimately like the figure number 4. The indices in the final model are

observable considering the first model.

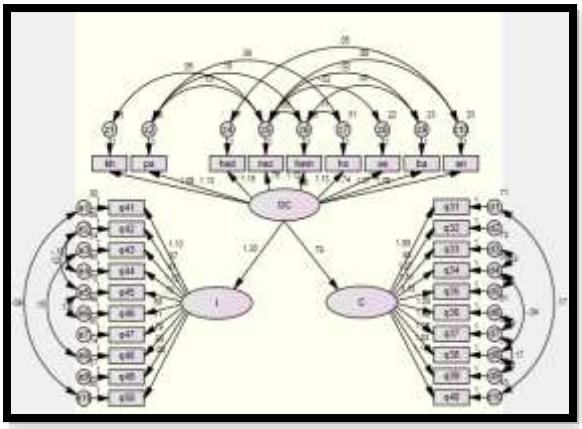
As it was shown in the table number 11.

Table 11. Indices measurement initial model

Fit indices	*Initial model*	*Final model*
CMIN	777.881	616.982
CMIN.DF	1.974	1.743
TLI	0.773	0.935
CFI	0.794	0.956
PNFI	0.600	0.631
PCFI	0.719	0.747
RMSEA	0.083	0.073

Based on the values in the final model, we accept it to be in the statistical community.

Figure 4. Final model



In figure 4, the whole surveyed of the standard rules for the regression weights consisting of the agent and quotients are observed. Based on these values, the effect of the organizational culture on the creativity is positive. Also, the organizational culture on the innovation is a positive.

5. 4. Testing research hypotheses

Hypothesis 1: The organizational culture and its dimensions in the place, based on EFQM, are located higher than average.

Based on the fact that this test premise is a right continuous one, the researcher has divided the meaningful values by two and has used them in the premise test. Based on the table 12, we get the result that the average of the organizational culture is meaningfully different from 3 (it is 0.05 > meaningfulness of a continuous case). In fact, the average of this variable has got a meaningful different from 3. In this way, we get the result that versatility in the organization is located at an average level. In fact, the average of the variable is more than 3. In this way, we get the result that the monitor in the organization is located on the higher level than the organization doesn't have a meaningful difference with 3. In fact, the average of this variable has got a meaningful different from 3. In this way, we get the result that clash of ideas in the organization in the organization is located at an average level. The average level of the identity in the organization has got a meaningful difference with 3. In fact, the variable average is more than 3. In this way, we get the result that the average of the personal creativity in the organization is located at a higher level than the average. The variable average of the reward level in the organization is meaningfully different from 3. In fact, the average of this variable is less than 3. In this way, we get the result that the average of judgment in the reward of the organization is located at a lower rate than the average. The variable average for supporting the personnel by the managers has got a meaningful difference from 3. In fact, this variable is more than 3. In this way, we get the result that the support of the managers is higher than the average. The average of the variable on the level of the manager's leading in the organization has got a meaningful difference from 3. In fact, the average of this variable is more than 3, so we get the result that the level of the leading among the managers in the organization is higher than the average. The average variable's risk ability among the personnel doesn't have a meaningful difference from 3. In fact, we get the result that the risk taking among the personnel is located on an average level. This is meaningfully different from 3. So this variable is higher than 3, and we understand that the level of relationship in the organization is higher than the average level.

Table 12. One-sample t-test for organizational culture

	Test Value = 3					
	T	df	Sig	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Versatility in the organization	-1/341	140	0/182	-0/0827	-0/2047	0/0392
Monitor in the organization	7/274	140	0/000	0/385	0/2806	0/4901
Clash of ideas in the organization	0/500	140	0/618	0/0331	-0/0978	0/1640
Identity in the organization	5/132	140	0/000	0/3806	0/2340	0/5272
Personal creativity in the organization	6/516	140	0/000	0/41608	0/2898	0/5423
Judgment in the reward	-7/355	140	0/000	-0/4988	-0/6329	-0/3647
Supporting the personnel by the managers	2/835	140	0/005	0/18913	0/0572	0/3210
Manager's leading in the organization	2/411	140	0/017	0/16312	0/0294	0/2969
Risk ability among the personnel	1/072	140	0/286	0/05674	-0/0479	0/1614
Relationship in the organization	9/674	140	0/000	0/46809	0/3724	0/5637
Organizational culture	3/609	140	0/000	0/151	0/0683	0/2338

Hypothesis 2 : The creativity level in the organization in the place is over than the average.

Based on the fact this premise test is a right continuous one, the researcher has divided the values in both tables by two and has used the value in the premise. Based on the table 13, the average of the creativity variable in the organization is meaningfully different from 3. In fact, the average of this variable is more than 3, and we get the result that the creativity in the organization is located at an average level.

Table 13. One-sample t-test for creativity level in the organization

	Test Value = 3					
	T	df	Sig	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Creativity level in the organization	6.920	140	0.000	0.36383	0.2599	0.4678

Hypothesis 3 : The level of innovation in the organization is higher than the average.

Based on the fact this premise test is a right continuous one, the researcher has divided the values in both tables by two and has used the value in the premise. Based on table 14, the average of the innovation in the organization is meaningfully different from 3. In fact, the average of this variable is more than 3, and we get the result that the innovation in the organization is located at an average level.

Table 14. One-sample t-test for innovation level in the organization

	Test Value = 3					
	T	df	Sig	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Innovation in the organization	3.126	140	0.002	0.15816	0.0581	0.2582

Hypothesis 4: The organizational culture has a positive and meaningful effect on the creativity in the organization.

Based on our previous findings, we see that the organizational culture has a direct and outstanding effect on creativity. In fact, a unit of change in the organizational culture is equal to 0.79 units of change on creativity.

Hypothesis 5: The organizational culture has a positive and meaningful effect on the innovation.

Based on our previous findings, we see that the organizational culture has a direct and outstanding effect on innovation. In fact, a unit of change in the organizational culture is equal to 1.350 units of change on creativity.

6. Result and Suggestion

1. Developing criticism and accepting critics, especially in the high levels, can be an effective solution to our problems. Doing such an important thing can be through meetings in order to review the procedures and problems in the organization. Anyway, we shouldn't be scared of the discussions about organizational problems.
2. Discussion and the emphasis on the shared values and beliefs in the meetings, especially by the executives make the foundations stronger. The personnel should respect the collective ideas and beliefs.
3. Assuring about the fact that the newly employed personnel should have suitable understanding about the values in the organization. Anyway, we can need to pay enough attention to the procedures.
4. Getting or maintaining suitable logos and names or brands in the life outside or inside the organization. For example, at the time of giving rewards, or on rewards day, we can hold these logos and brands on the presents which are given to the personnel, in this way, we can attract the attention of others.
5. The environment and the cultural points in the organization have important effect on the creativity of the personnel. The organizations which

have strict hierarchical systems have got low creativity and innovation. If they get higher responsibilities and freedom, their creativity and innovation will get higher and higher.

6. Studying the structure of the organization is so useful to get more organic and the activities will also get higher and better.
7. Reinforcing the human relationship among the partners, specially the managers.
8. Trying to get trust and assurance among colleagues through proper relationships.
9. The management's more attention to the rules and regulations in order to make equality and similarity among all the different units in the organization.
10. Regarding the fact that sometimes un-equalities and differences and differences are because of the lake personnel's familiarity, to these facts, it is suggested that organizations perform these trainings.
11. Paying, rewards and presents should be based on the criteria of the organizations on people's assets.

Acknowledgements:

Authors are grateful to the Fakour industrial company.

Corresponding Author:
Reza Radmehr
Department of Management
University of Isfahan
Azadi Square, Hezar-jarib Street, Isfahan, Iran
E-mail: rezaradmehr66@gmail.com

References

1. Anvari, A. (2004). Creativity and Innovation in Organizations and people. tadbir, 152.
2. Daft, R.L. (2006), a dual-core model of organizational innovation, Academy Of Management Journal, 20, pp. 193-211.
3. Goyal, Ajay & Akhilesh, K.B. (2007). Interplay among innovativeness, cognitive intelligence, emotional intelligence and social capital of work teams. Team Performance Management, 13(7/8), pp. 206-226.
4. Jimenez-Jimenez, Daniel et al (2008). Fostering Innovation: The role of market orientation and organizational learning. European Journal of Innovation Management, 11(3), pp. 389-412.
5. Kim, S., & Lee, H. (2010). Factors affecting employee knowledge acquisition and application capabilities. Asia-Pacific Journal of Business Administration, 2(2), 133 – 152.
6. Martins, E.C. & Terblanche, F.(2003). Building Organizational Culture that Stimulates Creativity and Innovation. European Journal of Innovation Management, 6(1), pp. 64-74.
7. Moghimi, Seyed Mohammad. (2006). Organization and Management. Tehran: Termeh.
8. Mottaghi, A. (2004). Reengineering necessity Inevitable. tadbir, 144.
9. Ojasalo, Jukka (2008). Management of innovation networks: a case study of different approaches. European Journal of Innovation Management, 11(1), pp. 51-86.
10. Rezaeian, A. (2006). Principles of management (18 Ed.). Tehran: Samt.
11. Robbins. P. Stephen, (2005), Organizational behavior, prentice Hall.
12. Samad aghaei, j. (2004). creativity,The essence of entrepreneurship (1 ed.). tehran: Entrepreneurship Center, Tehran University.
13. Taatila, Vesa P. et al (2006). Framework to study the social innovation network. European Journal of Innovation Management, 9(3), pp. 312-326.
14. Yilmaz, C., Ergun, E. (2008). Organizational Culture and Firm Effectiveness: An Examination of Relative Effects of Culture Traits and the Balanced Culture Hypothesis in an Emerging Economy. Journal of World Business, 43 290–306.

1/17/2025