

# Comparing Creative Organizational Culture in Qom Public Universities

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## Abstract

The aim of present paper is to compare affecting components on creative organizational culture in Qom public universities. It is an applied research in terms of purpose while it is survey type descriptive one in terms of data collection method.. To compare Qom public universities in terms of creative organizational culture, multi-population statistical average comparison test is used. To study the status of creative organizational culture in Qom public universities, one sample average test is used. The findings of average comparisons indicate that the status of creative organizational culture in Qom Medical University is more improper than Hazrat Masoumeh University, Qom Industrial University and Qom University. The status of creative organizational culture in Hazrat Masoumeh University is more improper than Medical University, Qom University and University of Tehran Qom Pardis while it is more proper in Qom Industrial University than Medical School and University of Tehran Qom Pardis. Likewise, t-test results indicated that creative organizational culture in Medical University, Qom University and University of Tehran Qom Pardis is undesired while it is medium in Hazrat Masoumeh University and Qom Industrial University.

**Keywords:** Organization, Culture, Creativity, Innovation, Universities

## Introduction

In a time with different titles such as knowledge age, cross-industrial age, information community age and creativity and innovation ages, organizations and corporations are preparing to manage global accelerating and profound changes. The velocity of changes and transformation is beyond human imagination so that creativity and innovation are considered as the main factors for global organizational survival (Aghayi Fishani, 1998).

Common forces to change the organizations such as globalization have made it necessary the rapidness of providing new ideas and to mitigate the costs. According to Kotter, the velocity of competition in future organizations and corporations would be increased. According to

Charles Handy, today organizations are characterized by constant changes. Therefore, those managers who have better understanding of changes can use the changes to the benefit of their organization and acquire a competitive advantage. Peters (1997) asserts that business world is constantly changing now and under such circumstance, constant innovation is the only strategy for individual and organizational survival (Roffe, 1999).

According to Scott and Bruce (1994), organizational culture is the most important factor for creativity. Employees' perception on the fact that organization encourages creativity would impact on their creative performance (Gumusluoglu & Ilsev, 2009). Shine (1984) asserts that organizational culture is a set of joint beliefs and assumptions by organizational members that can facilitate internal integration and external adaptation. Through identifying and awarding creative performance, organizational culture can drive creativity. In other words, those organizations that have a negative attitude toward new ideas would value for risk averse, would emphasize on status quo extremely and would have a closed political ambience and would cause creativity mitigation in the organization (Scott, 2001). Concerning the importance of creativity in organizations and the role of organizational culture in developing employees' creativity, present paper aims at comparing creative organizational culture in Qom public universities.

### **Organizational culture**

According to Scott and Bruce (1994), organizational culture is the most important factor for creativity. Employees' conception on how the organization persuades creativity impacts on their creative performance (Gumusluoglu & Ilsev, 2009). Shine (1984) asserts that organizational culture is a set of joint beliefs and assumptions by organizational members that can facilitate internal integration and external adaptation. Through identifying and awarding creative performance, organizational culture can drive creativity. In other words, those organizations that have a negative attitude toward new ideas would value for risk averse, would emphasize on status quo extremely and would have a closed political ambience and would cause creativity mitigation in the organization (Scott, 2001). In Creative organizational culture .Top management supports financial creativity and employees are not punished for rational risks (Mayfield & Mayfield, 2008).

### **Research main goals**

1. Identifying affecting components on creative organizational culture
2. Comparing Qom public universities in terms of affecting components on creative organizational culture
3. Studying the status of creative organizational culture in terms of Qom public universities

### **Research main questions**

1. What are affecting components on creative organizational culture?
2. Is there any significant difference relationship between creative organizational culture components in Qom public universities?
3. How is the status of creative organizational culture in Qom public universities?

### **Research process**

Initially, creative organizational culture components and aspects are identified for which different books and articles are used. Then, the validity of components is studied by elites'

opinions. Afterwards, a questionnaire was devised and distributed among a selected sample from public university personnel in Qom province. Thus, Qom public universities are compared in terms of creative organizational culture.

### The components of creative organizational culture

To identify affecting components on creative organizational culture, below articles and books are used:

#### *Keys' attitude:*

Keys considered eight aspects for creativity in workplace of which 6 aspects persuade creativity and two aspects prevent creativity. They include:

1. Organizational encouragement
2. Supervisory encouragement
3. Work groups' supports
4. Sufficient resources
5. Liberty
6. Challenging job
7. Job pressure
8. Organizational barriers

#### *Feurer's attitude:*

Feurer et al., state that organizational culture consists of following attributes:

- Establishing effective interactions
- Paramount drivers for creativity
- Free expression
- Facility in idea generation (Andriopoulous, 2001).

#### *Tuchman and Oily's attitude:*

Some norms existing in creative organizational cultures are outlined in table 1:

Table 1:

Affective Norms on Innovation

<b>Natural resource firms South Africa</b>	<b>Pharmaceutical firms Europe</b>	<b>Financial service firms USA</b>	<b>International research firms</b>	<b>Beverage firms Japan</b>
Admiring work mistakes Recognition Awarding Multilateral respect Free communication Free experiences	Awarding More care Learning Recording the results Clear aims Information exchange	Admiring work mistakes Free experiences • In time • In resources Clear aims	Risk taking • In job velocity • In heedless Awarding Contribution	Cooperation Admiring mistakes Non-concealment Resilience Clear aims

From *innovation as the foundation of victory*, by Tuchman, M. & Oily, C. 1999, Tehran, Rasa Cultural Services

Creative organizational culture has components in quality literature called creative culture components. They include:

1. Multilateral communications
2. Conflict solution
3. Job enrichment
4. Innovation
5. Challenging job
6. Commitment
7. Fair awards
8. Job expectations transparency
9. Cooperation sense
10. Trust

Each aspect along with authors who have pointed out them in their studies is shown in table 2 (Hassanzadeh and Rashnavadi, 2008, pp. 157 – 159).

Table 2:

Creative Organizational Culture Aspects

Aspects Authors	Communication	Conflict solution	Enrichment	Innovation	Challenging job	Commitment	Awards	Role expectations	Cooperation	Trust
Barry (1991)	x		x				x			x
Lethiman (1990)	x		x	x		x	x			x
Karazi (1979)	x			x					x	x
Dean (1994)	x	x	x	x	x	x	x		x	x
Deming (1986)					x		x	x		x
Hunt (1992)	x		x	x						x
Juran (1995)	x		x				x			x
Ledford (1995)	x		x	x			x			
MacMillan (1989)	x	x	x		x	x			x	x
Ross (1993)	x		x			x	x			
Smith & Fingen (1993)	x		x		x		x		x	x
Scotten (1989)		x	x			x			x	

From *Organizational excellence models: from theory to practice*, (p.60), by Hassanzadeh, H. R. & Reshnavadi, H., Tehran, Shahr Publications, 1<sup>st</sup> edition.

#### *Andriopolous' attitude:*

Andriopolous (2001) defined several aspects for creative organizational culture:

- Contribution
- Free expression
- Liberty in acquiring experience
- Open communication
- Trust

- Mutual respect
- Initiatives
- Contributors' security.

*Scott's attitude:*

- Awarding the creative performance
- Constructive competition
- Risk taking
- Welcoming the change

*Martin and Terblanche's attitude:*

In their studies, Martins and Terblanche (2003) considered five aspects for creative organizational culture with their own components shown in table 3.

Table 3:

Creative Organizational Culture Aspects By Martins and Terblanche

creative organizational culture aspects					
Strategy	Structure	Supportive mechanisms	Creativity encouraging behaviors	Communications	
Mission and perspective objectivity	Resilience Liberty Independence Capability Decision making Collaborative type interactions Teams and groups	Award and respect Resource availability Time IT Creative people	Constant learning culture Idea generation Risk taking Competiveness Change support Conflict management	Open communication	Indicators

From "Building Organizational Culture That Stimulates Creativity & Innovation" by Martins & Terblanche, *European Journal of Innovation Management*, 6(1), pp64-74

Each aspect along with authors who have pointed out them in their studies is shown in table 4.

Table 4:

Identified Creative Organizational Culture Components And Relevant Authors

Aspect Author	Communications	Conflict solution	Enrichment	Innovation	Challenging job	Commitment	Awards	Role expectations	Cooperation	Trust	Liberty (expression, experience)	Resource availability	Risk taking	Change support	Mutual respect	Independence	Accepting	resilience
Barry (1991)	x		x				x			x								
Lethiman (1990)	x		x	x		x	x			x								
Karazi (1979)	x			x					x	x								
Dean (1994)	x	x	x	x	x	x	x		x	x								
Deming (1986)					x		x	x		x								
Hunt (1992)	x		x	x						x								
Juran (1995)	x		x				x			x								
Ledford (1995)	x		x	x			x											
MacMillan (1989)	x	x	x		x	x			x	x								
Ross (1993)	x		x			x	x											
Smith & Fingen (1993)	x		x		x		x		x	x								
Scotten (1989)		x	x			x			x									
Keys					x		x				x	x						
Fuerer	x						x				x							
Andriopoulos	x								x	x	x		x		x			
Williams							x						x	x				
Martin and Terblanche		x					x		x		x	x	x	x		x		x
Tuchman and Oily	x						x		x		x		x		x	x	x	x

### Measuring the validity of components

Elites' opinions are used to measure the validity of affecting components on creative organizational culture. Components are valid if the average of elite's scores is greater than 3. As seen, such components as commitment, role expectation transparency and mutual respect lack necessary validity since the given scores by elites were lower than 3.

### Methodology, sample, population and data collection method

Present research is an applied one in terms of purpose and it is a descriptive survey in terms of data collection method. Its population consists of Qom public universities' employees (754). Layer random sampling method as well as below equation are used to determine sample size:

$$n = \frac{NZ^2S^2}{(N-1)d^2 + Z^2S^2}$$

n = sample size

P = the ratio of successfulness in population

q = the ratio of unsuccessfulness in population

d = error

$Z^2\alpha/2$  = normal distribution

P and q are equal to 0.5.

In 95% confidence level and 0.5 error, total sample size in 257 while 228 questionnaires were returned. Population and sample sizes are shown in table 5.

Table 5:

Population and Sample Size In Qom Public Universities

Row	Universities	Population	Sample size	Returned questionnaires
1	Medical University	190	65	65
2	Hazrat Masoumeh	35	12	12
3	Qom University	370	1	92
4	University of Tehran, Qom Pardis	124	42	42
5	Qom Industrial University	35	12	12
	Total	754	257	223

Based on identified components, a questionnaire was devised and distributed among 15 elites. Remedies were done based on the opinions and its validity was supported. To investigate the reliability, its Chronbach's alpha was computed and supported.

### Main questions

1. What are affecting components on creative organizational culture?
2. Is there any significant difference between the situations of creative organizational culture in Qom public universities?
3. How is the status of creative organizational culture among Qom public universities?

### Data analysis

In present paper, descriptive and deductive (comparing test of the average of multi samples) are used to analyze data.

In descriptive statistics section, gender, education, service record and organizational position variables are used and depicted in table 6.

Table 6:

*Demographic Situation of Statistical Sample*

Service record (years)				Education				Gender		Variables
Over 25	15 – 25	5 – 15	Less than 5	Masters and higher	Bachelor	Associate of art	Under diploma	Male	Female	
4.1	17.8	47	31.1	30.7	57.8	8.7	2.8	59.6	40.4	%

As seen in table 6, 40.2% of respondents are female and remained 59.5% are male. In terms of education, 2.8% have high school diploma/under diploma, 57.8% have bachelor and 30.7% have masters and higher degrees. In terms of job record, 31.1 are less than 5 years, 547% are 5 – 15 years, 17.8 are 15 – 25 years and remained 4.1 are over 25 years. To compare the situation of affecting components on creative organizational factors in Qom Public universities, comparing test of the average of multi samples is used and depicted in table 7 & 8.

Table 4:

## ANOVA

ANOVA						
Sig.	F	Mean Square	df	Sum of Squares		Variable
0.000	8.69	2.69	4.00	10.77	Between Groups	Creative organizational culture
		0.31	218.00	67.55	Within Groups	
			222.00	78.32	Total	

ANOVA table indicates the results of comparing Qom public universities. As seen in table 7, significance ratio is less than 0.05; therefore  $H_0$  (there is no significant difference among societies) is not supported. In other words, there is a significant difference among creative organizational culture components in Qom public universities. However, this test cannot alone determine which averages are different. So, Post Hoc test is used and the results are outlined in table 8 (if  $H_0$  is supported, there is no need to consult such tests).



Table 8:

*Multiple Comparison of Qom Public Universities In Terms of Creative Organizational Culture Components*

Multiple Comparisons						
		COC				
		Tukey HSD				
Confidence 95% Interval		.Sig	Std. Error	Mean Difference ((I-J	J) university)	I) university)
Upper Bound	Lower Bound					
-0.339	-1.3012	0	0.1749	-0.82014*	Hazrat Masoumeh University	Medical university
-0.1618	-1.124	0.003	0.1749	-0.64288*	Qom Industrial University	
-0.0325	0.5287	0.018	0.0902	-0.28062*	Qom University	
0.2251	-0.3812	0.954	0.1102	0.07809*	University of Tehran Pardis Qom	
1.3012	0.339	0	0.1749	0.82014	Medical University	Hazrat Masoumeh University
0.8024	-0.4479	0.936	0.22726	0.17726	Qom Industrial University	
1.0095	0.0695	0.015	0.17085	0.53952	Qom University	
1.2433	0.2408	0.001	0.18221	0.74296*	University of Tehran Pardis Qom	
1.124	0.1618	0.003	0.1749	0.64288*	Medical university	Hazrat Masoumeh University
0.4479	-0.8024	0.936	0.22726	-0.17726	Hazrat Masoumeh University	
0.8322	-0.1075	0.215	0.17085	0.36226	Qom University	
1.066	0.0636	0.018	0.18221	0.56480*	University of Tehran Pardis Qom	
0.5287	0.0325	0.018	0.0902	0.28062*	Medical university	Qom University
-0.0695	-1.0095	0.015	0.17085	-0.53952	Hazrat Masoumeh University	
0.1077	-0.8322	0.215	0.17085	0.36226	Qom Industrial University	
0.4877	-0.0826	0.292	0.10366	0.20254	University of Tehran Pardis Qom	

0.3812	-0.2251	0.954	0.1102	0.07809	Medical university	University of Tehran Pardis Qom
-0.2408	-1.2433	0.001	0.18221	-0.74206*	Hazrat Masoumeh University	
-0.0636	-1.066	0.018	0.18221	-0.56480	Qom Industrial University	
0.0826	-0.4877	0.292	0.10366	-0.20254	Qom University	

. \*The mean difference is significant at the 0.05 level.

As seen in table 8, in Mean Difference column, significant difference are marked \*. As also observed in some deliverables, the comparison of creative organizational culture averages in Qom public universities by Tukey tests indicate below points:

- There is a significant difference between the averages of creative organizational culture averages in Qom Medical University and creative organizational culture averages in Qom University, Hazrat Masoumeh and Qom Industrial University.
- There is a significant difference between the averages of creative organizational culture averages in Hazrat Masoumeh and creative organizational culture averages in Medical University, Qom University and UT Qom Pardis.
- There is a significant difference between the averages of creative organizational culture averages in Qom Industrial University and creative organizational culture averages in Medical University and UT Qom Pardis
- There is a significant difference between the averages of creative organizational culture averages in Qom University and creative organizational culture averages in Medical University, Qom University and Hazrat Masoumeh University.
- There is a significant difference between the averages of creative organizational culture averages in UT Qom Pardis and creative organizational culture averages in Medical University, Hazrat Masoumeh University and Qom Industrial University.

To judge on lower or higher averages of universities, one can use higher and lower bounds. If both bounds are negative, the lower average is compared and the status of variable is more improper than compared university. If both bounds are positive, the higher average is compared and the status of variable is more proper than compared university. According to both lower and higher bounds in table 8, below results are provided:

- The status of creative organizational culture in Qom Medical University is more improper than Hazrat Masoumeh University, Qom Industrial University and Qom University since both lower and higher bounds are negative.
- The status of creative organizational culture in Hazrat Masoumeh University is more proper than Qom Medical University, Qom Industrial University and UT Qom Pardis since both lower and higher bounds are positive.
- The status of creative organizational culture in Qom Industrial University is more proper than Medical University and UT Qom Pardis since both lower and higher bounds are positive.
- The status of creative organizational culture in Qom University is more proper than Qom Medical University since both lower and higher bounds are positive while it is more improper than, Hazrat Masoumeh University since both lower and higher bounds are negative.

- The status of creative organizational culture in UT Qom Pardis is more improper than Hazrat Masoumeh University and Qom Industrial University since both lower and higher bounds are negative.

To study creative organizational culture in terms of Qom public universities, one – sample test is used and the relevant findings are shown in tables 9 & 10.

Table 9:

*One – Sample Statistics*

One-Sample Statistics				
Std. Error Mean	Std .Deviation	Mean	N	Creative organizational culture in terms of Qom public universities
.06420	.51759	2.4568	65	Medical University
.18656	.64627	3.2769	12	Hazrat Masoumeh University
.11270	.39039	3.0997	12	Qom Industrial University
.06124	.58743	2.7374	92	Qom University
.08599	.55730	2.5349	42	UT Qom Pardis

Table 10:

*One – Sample Statistics Test*

One-Sample Test						
Test Value=3						
%95Confidence Interval of the Difference		Mean Difference	-2)tailed.( Sig	df	t	Creative organizational culture in terms of Qom public universities
Upper	Lower					
-.4150	-.6715	-.54323	.000	64	-8.462	Medical University
.6875	-.1337	.27692	.166	11	1.484	Hazrat Masoumeh University
.3477	-.1484	.09966	.395	11	.884	Qom Industrial University
-.1409	-.3843	-.26260	.000	91	-4.288	Qom University
-.2915	-.6388	-.46514	.000	41	-5.409	UT Qom Pardis

In the case that significance value of the test is greater than considered significance level (0.05),  $H_0$  is supported and the value of the variable will be 3. It means that variable is in medium level. In the case that significance value of the test is lower than considered significance level (0.05),  $H_0$  is not supported. One should consider lower and higher bounds to decide on average value lower or greater than 3. In the case that both bounds are negative, average value is lesser than 3 and variable is in improper status while in the case that both bounds are positive, average value is lesser than 3 and variable is in proper status.

As seen in table 10, T-Test findings indicate that creative organizational culture is improper in Qom Medical University, Qom University and UT Qom Pardis while it is in medium level in Hazrat masoumeh University and Qom Industrial University.

### Conclusion and Recommendations

The aim of present paper is to compare creative organizational culture components in Qom public universities. It is an applied research in terms of purpose while it is survey type descriptive one in terms of data collection method. Research population consists of all employees in Qom public universities. Studied components include communications, conflict management, enrichment, innovation, job challenging, awards for creative behavior, the sense of cooperation and contribution, trust, freedom, resource availability, risk – taking, change supports, independence, accepting opposite ideas and resilience. To compare Qom public universities in terms of creative organizational culture, multi-population statistical average comparison test is used. To study the status of creative organizational culture in Qom public universities, one sample average test is used.

The findings of average comparisons indicate that the status of creative organizational culture in Qom Medical University is more improper than Hazrat Masoumeh University, Qom Industrial University and Qom University. The status of creative organizational culture in Hazrat Masoumeh University is more improper than Medical University, Qom University and University of Tehran Qom Pardis while it is more proper in Qom Industrial University than Medical School and University of Tehran Qom Pardis. Likewise, t-test results indicated that creative organizational culture in Medical University, Qom University and University of Tehran Qom Pardis is undesired while it is medium in Hazrat Masoumeh University and Qom Industrial University.

To educate and instruct creative people as well as to improve creative organizational culture, managers should facilitate below initiatives:

1. Risk enduring: employees should be encouraged to experience a plan with fearing its outcomes and consider mistakes as learning opportunities.
2. Decreasing external control: laws, regulations, policies and similar controls should be mitigated to the lowest levels.
3. Decreasing job dividing: excessive job dividing should be avoided to prevent narrow sighting and to increase field of view.
4. Ambiguity acceptance: in emphasizing on transparency, objectivity and certainty of creativity process, ambiguities should be avoided to prevent limitation of creativity scope.
5. Enduring impractical ways: one should endure impractical responses which see unwise since some solution may lead into creativity in some cases.
6. Enduring conflict: diversity of ideas should be persuaded even though agreement among people and units does not always lead into successful performance.
7. Focus on results rather than tools: goals should be clear and people should be persuaded to consider several guidelines to achieve these goals. Focus on results would lead into providing several correct recommendation and solutions for each given problem.
8. Multilateral communications: communications should be flowed horizontally, vertically and diagonally. Free communication flow would facilitate productive ideas.
9. Establishing contribution system: when employees know that they will be acknowledged by the supervisors if they submit recommendations and viewpoints, they would constantly address look for thinking and creativity. If managers disrespect employees' opinions and ideas, they will break human personality and dry initiatives.

10. Expanding workgroups: in group meetings, problems are discussed in different perspective and people try to provide more constructive ideas.

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