# INVESTIGATE THE RELATIONSHIP BETWEEN READINESS LEVEL MANAGERS TO IMPLEMENT TOTAL QUALITY MANAGEMENT WITH ORGANIZATIONAL CULTURE AND EFFECTIVENESS OF MANAGERS

Shahram Gilaninia<sup>1</sup>, Mohammad Taleghani<sup>2</sup>, Seyyed Javad Mousavian<sup>3</sup>, Minoo Nadem<sup>4</sup>, Soraya Alehojjat<sup>5</sup>, Akram Mahdavi<sup>6</sup>, Zahra Shadrouh<sup>7</sup>, Azadeh Torabi<sup>8</sup>, Fatemeh Zadbagher Seighalani<sup>9</sup>

<sup>1</sup>Department of Business Management, Guilan Science and Research Branch, Islamic Azad University, Guilan, Iran

## **Abstract**

This research has been done with goal of investigate the relationship between readiness level managers for the implementation total quality management with organizational culture and effectiveness of managers in the Azad University of Guilan Province. In study statistical society constitute the faculty and staff, and administrators in Azad universities of Province includes the cities of Rasht, Anzali, Lahijan and Astaneh that has been by random class sampling method for determining sample size was used from formula Cochrane that sample size obtained 229 people and since the 36 percent of teachers are women and 64 percent male were randomly selected 108 women and 191 men teacher. For data collected is used from questionnaires, total quality management, organizational culture and effectiveness of managers and was tested by regression and ANOVA method. The results showed that there is a significant relationship between studied variables in some aspects of total quality management and organizational culture.

Keyword: Total Quality Management, Organizational Culture, Managers Effectiveness

### 1- INTRODUCTION

Total quality management is a method that can create change in education. The importance of Total Quality Management (TQM) in the manufacturing and service organizations has been significantly increased within the past twenty years (Taleghani, Mousavian, 2011). As Saliass believes, Total Quality Management is philosophy of continuous improvement that can provide a set of scientific tools and techniques to meet the needs, demands and expectations of current and future in each educational institution. According to organizations and educational units can be considered as the main factors and determining the supply and preparation workforce and other manufacturing and service organizations in the community (Saliass, 2009). The concept of total quality management system is to utilize the intellectual and physical capabilities of employees at various levels of an organization. In Total quality management, responsibilities of teaching, learning and quality educational organization is

<sup>&</sup>lt;sup>2</sup>Department of Business Management, Guilan Science and Research Branch, Islamic Azad University, Guilan, Iran

<sup>&</sup>lt;sup>3</sup>Department of Management, Astara Branch, Islamic Azad University, Astara, Iran <sup>4,5,6,7,8</sup>M.A. Student of Business Management, Rasht Branch, Islamic Azad University, Rasht, Iran <sup>9</sup>Department of Business Management, Rasht Branch, Islamic Azad University, Rasht, Iran

performed by all agents. From various capabilities of personal is used in different levels. Total quality management applied employees' power in all activities and processes and contribute as operational and concrete implemented to depth Organization (Faraji, 2005).

Each organization has special philosophy, beliefs, values and norms. Organizational culture as a source of organizational processes is such as structure, hierarchy, how organizational relationships, management styles and attitudes and the attitudes organization members. In times of uncertainty, managers need a way a mechanism, a procedure, a methodology to monitor and react to the environment (Rezvani, Gilaninia, Mousavian, 2011). Deal & Kennedy ,Organizational culture has defined based on organization activity method .in other hand, production method, wages and bonuses payment method and behavior employees and each other act of organization is in organizational culture. Therefore, each organization has a culture that shaped working behavior of organization. In order to effectiveness of organization is requiring that must commensurate with mission, technology, size of operation and other variables have the appropriate organizational culture. Today, total quality management is very important that most developed countries and developing are considered in all aspects of industry sectors to education, facilities and facilities for its implementation in their organizations and have obtained excellent results from the application of this approach (Armestrang, 2005).

Ghasemi in master thesis with titled "analysis of reediness measure on Shiraz University faculty members to acceptance of total quality management" express according to customer is key element of TQM. University management should use from desire and willing faculty because faculty member have attend to more their professional and specialization. Thus they give more importance to training and management should provide training to faculty members for their attitude modify in order to more attention to students.

Nouh pisheh(2005) in his study with title "Evaluation Establishment total quality management in Education in Fars concludes that there is no significant difference between attitude of training and administrative for established TQM. According to results of the research readiness of staff is medium in order to Establishment TQM.

Prajogo & McDermott (2008) has been implemented, this result was obtained that in implementation of total quality management, and organizational culture as a variable has a significant influence.

In study by mosadeghrad (2006) was done In order to determine effect of cultural values on the successful application of total quality management in hospitals of Isfahan University, lack of culture factors including support and commitment by management, a strong and effective leadership, qualitative organizing, strategic quality planning, employee understanding of the situation and condition, qualitative values and objectives and.... is considered Factor failure total quality management in hospitals.

## 2- RESEARCH METHOD

This research is descriptive research of type relationship or correlation and has been conducted with field methods and by using questionnaires of total quality management, organizational culture and organizational effectiveness. In study statistical society constitute the faculty and staff, and administrators in Azad universities of Province Includes the cities of Rasht, Anzali, Lahijan and Astaneh that has been by random class sampling method .for

determining sample size was used from formula Cochrane that sample size obtained 229 people and since the 36 percent of teachers are women and 64 percent male were randomly selected 108 women and 191 men teacher.

For data collected are used three questionnaires following:

# A) TQM questionnaires

This questionnaire is including 44 question that is designed based on six elements of quality management: 1- attention to customer; 2- Assessment; 3- Continuous improvement; 4- Training staff; 5-commitment management; 6- decision making and comprehensive participation. It is based on a Likert scale of five degrees from very much agrees to disagree.

## b) Organizational culture

This questionnaire is including 40 question that is designed based on elements of Organizational culture: 1- Guidance; 2- Encourage and reward; 3- Coordination and cohesion;4- Relationships pattern;5- Risk tolerance;6- Support manager;7- Control; 8- Identity and Assimilation;9- Responsibility;10- Individual initiative.

#### c) Organizational Effectiveness

This questionnaire is including 35 question that is designed based on elements of Organizational Effectiveness: 1-Adaptation; 2- goals Realization; 3- Solidarity; 4- Continuity and reliability.

For reliability was used test-retest method. In Method retest questionnaire was given to 30 teachers that after completing and data extraction, after two weeks were again given same 30 people. Correlation was calculated between the two stages of the questionnaire and Reliability coefficient was obtained 0/86 for total quality management questionnaire, o/93 for organizational culture questionnaire and 0/93 for questionnaire effectiveness.

For tools validity were provided three questionnaires to a group of university professors and experts in Rasht, Anzali and Lahijan and its content validity was approved.

#### 3- DATA ANALYSIS

For investigate readiness managers for the implementation total quality management with organizational culture and effectiveness of managers is used multi regression. That in first for determine minimum one of predict variable (TQM and organizational culture variables) can predicted criteria variable, is used ANOVA and coefficient of determination that result is shown in following table.

Table 1 - Analysis of variance and regression parameters

R	$\mathbb{R}^2$	F	DF1	DF2	SIG
0/870	0/757	462/613	2	297	0/000

As is observed F value is equal to 462/613 that this amount with df (2.297) in significant levels 0 / 000 is a significant. Thus, we conclude that predictive variables can predict the criteria variable. On the other hand  $R^2$ =0/757 means that predicted variable can predict 75% changing of effectiveness variable.

Table 2 - beta coefficients and significance levels

	В	BETA	T	Sig
total quality management	0/087	0/089	2/091	0/037
organizational culture	0/839	0/802	18/761	0/000

As is observed, Beta value TQM and organizational culture is significant. Means that TQM and organizational culture can predict effectiveness managers, thus can write regression equation based on beta value to as follows:

$$Y=0/809 x1+0/802 x2$$

Table 3 - Analysis of variance and regression parameters for evaluation of total quality management Dimension and organizational culture

R	$\mathbb{R}^2$	F	df1	df2	SIG
0/758	0/616	78/266	6	293	0/000

As is observed F value is equal to 78/266 that this amount with df (6.293) in significant levels 0 / 000 is a significant. Thus, we conclude that predictive variables (elements of TQM) can predict the criteria variable (Organizational Culture). On the other hand  $R^2$ =0/61 means that predicted variable can predict 61% changing of effectiveness variable.

Table 4 - beta coefficients and significant levels

	В	BETA	Т	Sig
Customer orientation	1/786	0/292	5/464	0/000

Assessment	2/238	0/443	5/702	0/000
Continuous improvement	-0/864	0/153	2/040	0/042
Training	0/124	0/027	0/299	0/765
Commitment	0/121	-0/023	-0/257	0/797
decision making	0/997	0/284	4/357	0/000

As is observed, Beta value Customer orientation, Assessment and decision making is significant. Means that Customer orientation, Assessment and decision making can predict organizational culture, Therefore, other aspects is removing from the regression equation and was performed regression again that its result is shown in table following:

Table 5 - Analysis of variance and regression parameters

R	$\mathbb{R}^2$	F	DF1	DF2	SIG
0/758	0/616	118/070	4	295	0/000

As is observed F value is equal to 118/070 that this amount with df (4.295) in significant levels 0 / 000 is a significant. Thus, we conclude that predictive variables (elements of Customer orientation, Assessment and decision making) can predict the Criteria variable (Organizational Culture). On the other hand  $R^2$ =0/61 means that predicted variable can predict 61% changing of effectiveness variable.

Table 6 - Analysis of variance and regression parameters

	В	ВЕТА	T	Sig
Customer orientation	1/775	0/290	5/480	0/000
Assessment	2/255	0/446	6/416	0/000
Continuous improvement	-0/813	-0/144	2/256	0/025
decision making	0/967	0/275	5/229	0/000

As is observed significant level each four predicted variable is less than acceptable level (0/05), thus regression equation can be written as follows:

$$Y = 0/290X1 + 0/44X2 + (-0/144)X3 + 0/275X4$$

Table 7 - Analysis of variance and regression parameters for evaluation of total quality management Dimension and Effectiveness of managers

R	$\mathbb{R}^2$	F	DF1	DF2	SIG
0/712	0/507	50/253	6	293	0/000

As is observed F value is equal to 50/253 that this amount with df (6.293) in significant levels 0 / 000 is a significant. Thus, we conclude that predictive variables (elements of TQM) can predict the criteria variable (effectiveness managers). On the other hand  $R^2=0/507$  means that predicted variable can predict 50% changing of effectiveness variable.

Table 8 - beta coefficients and significant levels

	В	BETA	T	Sig
Customer orientation	1/634	0/255	4/218	0/000
Assessment	2/154	0/407	4/631	0/000
<b>Continuous improvement</b>	-0/918	-0/155	-1/829	0/068
Training	0/521	0/107	1/057	0/291
Commitment	0/434	0/079	0/777	0/438
decision making	0/346	0/094	1/275	0/203

As is observed, Beta value Customer orientation and assessment is significant. Means that Customer orientation and Assessment can predict effectiveness managers, Therefore, other aspects is removing from the regression equation and was performed regression again that its result is shown in table following:

Table 9- Analysis of variance and regression parameters

R	$\mathbb{R}^2$	F	DF1	DF2	SIG
0/700	0/490	142/481	2	297	0/000

As is observed F value is equal to 14/481 that this amount with df (2.297) in significant levels 0/000 is a significant. Thus, we conclude that predictive variables (elements of Customer orientation and Assessment) can predict the criteria variable (effectiveness managers). On the other hand  $R^2$ =0/49 means that predicted variable can predict 49% changing of effectiveness variable.

Table 10 - Beta coefficients and significant levels

	В	ВЕТА	T	Sig
Customer orientation	1/815	0/283	5/087	0/000
Assessment	2/529	0/478	8/577	0/000

As is observed significant level each two predicted variable is less than acceptable level (0/05), thus regression equation can be written as follows:

#### Y=0/283X1+0/478X2

Table 11 - Analysis of variance and regression parameters for evaluation of organizational culture Dimension and effectiveness of managers

R	$\mathbb{R}^2$	F	DF1	DF2	sig
0/875	0/765	94/044	10	289	0/000

As is observed F value is equal to 94/044 that this amount with df (10.289) in significant levels 0 / 000 is a significant. Thus, we conclude that predictive variables (elements of organizational culture) can predict the Criteria variable (effectiveness managers). On the other hand  $R^2$ =0/76 means that predicted variable can predict 76% changing of effectiveness variable.

Table 12 - Beta coefficients and significant levels

	В	BETA	T	Sig
Initiative	0/753	0/105	1/427	0/155

Guidance	1/821	0/149	3/085	0/002
Encourage	-0/191	-0/022	-0/499	0/653
Coordination	2/438	0/274	4/348	0/000
Relationship	1/319	0/086	1/571	0/117
Tolerance	0/550	0/071	1/072	0/285
Control	0/648	0/033	0/774	0/439
Support	0/222	0/036	0/528	0/598
Responsibility	0/259	0/195	2/723	0/007
Identity	0/686	0/060	0/517	0/130

As is observed, Beta value Initiative, Guidance, Responsibility and Coordination is significant. Means that Initiative, Guidance ,Responsibility and Coordination can predict organizational effectiveness, Therefore, other aspects is removing from the regression equation and was performed regression again that its result is shown in table following:

Table 13 - Analysis of variance and regression parameters

R	$\mathbb{R}^2$	F	DF1	DF2	SIG
0/871	0/758	230/899	4	295	0/000

As is observed F value is equal to 230/899 that this amount with df (4.295) in significant levels 0 / 000 is a significant. Thus, we conclude that predictive variables (elements of Customer orientation, Assessment and decision making) can predict the Criteria variable (organizational culture). On the other hand  $R^2$ =0/758 means that predicted variable can predict 75% changing of effectiveness variable.

Table 14 - Beta coefficients and significant levels

	В	ВЕТА	T	Sig
Initiative	1/440	0/201	3/472	0/001
Guidance	1/980	0/162	3/439	0/001
Coordination	3/035	0/341	6/002	0/000
Responsibility	1/560	0/241	4/002	0/000

As is observed significant level each four predicted variable is less than acceptable level (0/05), thus regression equation can be written as follows:

Y = 0/201 X1 + 0/162 X2 + 0/341 X3 + 0/241 X4

## 4- CONCLUSIONS & SUGGESTIONS

System of Total Quality Management as a management method gives several and important mechanisms in disposal of organization and its practitioners. Overall TQM has been system experience in practice and helps on effectiveness. As was observed, Organizational culture has an effect on the level of readiness for implementation of total quality management .Important factor in the formation of organizational culture is organization experience in dealing with the external environment. TQM is created with way of change and evolution, organizational culture proportional to continuous improvement and changing needs and it can use valuable experience for assessment basic goals and value again and their culture change and modify proportional to customer needs and new competitor.

Organizations is try that with recourse to new approach increase their quality of manufactured products and services day to day and this way enhance their share in target markets of domestic and foreign. This organization has founded for having like advantages, they are require to continuous improvement. Implementation of the continuous improvement is a possible through TOM, it needs to support of organizational culture. Investigate relationship between TQM and organizational culture show that real difference is on basic of this relationship. Some group believe that implementation TQM has caused changing culture and another group believe that organizational culture impact on TQM but Studies conducted in order to investigate the relationship between two variables have shown that Organizational culture has always been prior to the implementation of total quality management. Thus, according to previous results and conclusions of this study and the importance of total quality management in Iran's Universities, for implementation of total quality management in Iran's Universities is necessary to provide several the proper solutions: first; in implementation total quality management study and identification of types of cultures available in university is essential. Second: In order to adoption and successful implementation of total quality management in existing conditions, respect for hierarchy in the public universities of country seems necessary but in order to achieve a desirable situation in future is recommended promotion of cultures level as development and group.

# **REFERENCES**

- [1] Armstrong, R. A.(2008). Total quality management. London; Chapman Hall.
- [2] Prajogo D. I. and McDermott, C. M.(2008). The relationship between total quality management practices and Organizational culture. Journal of Operations & Production Management. Vol. 52, No 11. pp. 72-89.
- [3] Faraji, Hamidreza. (2005). Total quality management in the organization of knowledge, Journal of Tadbir, No 151.
- [4] Ghasemi, alireza. (2002). Analysis of reediness measure on Shiraz University faculty members to acceptance of total quality management, MS Thesis , Azad University, Iran, Shiraz.
- [5] MosadeghRad, A.M.(2006). The impact of organizational culture on the successful implementation of total quality management. The TQM Magazine. Vol. 18, No. 6, pp.606-625
- [6] Nouh pisheh, ebrahim. (2005). Evaluation Establishment total quality management in Education in Fars, MS Thesis ,Azad University,Iran,Najafabad.
- [7] Rezvani,M;Gilaninia,Sh;Mousavian,S.J.(2011). Strategic Planning: A Tool For Managing Organizations In Competitive Environments, Australian Journal of Basic and Applied Sciences, 5(9): 1537-1546.
- [8] Taleghani,M;Mousavian,S.J;Choobeh,E.R.(2011). The Role of Total Quality Management in Performance Improvement of New Enterprises (Case Study: Insurance Industries of Northern Iran), INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS, VOL 3, NO 6,pp35-46.
- [10] Saliss ,A.(2009). An analysis of a university total quality management program from process content and results perspectives. Thesis , Boston University.