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The Establishment and Implementation of Total Quality Management (TQM) on Learning and Organizational Creativity (Case Study: University of Medical Sciences)

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Abstract: The aim of this study was to evaluate the role of the establishment and implementation of Total Quality Management (TQM) on learning and organizational innovation at the University of Medical Sciences, Tehran. The aim of the present study, the use of the methods, descriptive-survey. The study population is 17 thousand employees of Tehran University of Medical Sciences of which 384 subjects were selected using Cochran formula. To collect data was used questionnaires organizational learning, total quality management and is part of organizational creativity questionnaire. The validity of the questionnaire was confirmed by a group of university professors. Cronbach's alpha reliability coefficient for the first questionnaire they also 0.84 for the second questionnaire 0.82 and 0.86, respectively for the third questionnaire. Spearman correlation using SPSS Software research data were analyzed. The results indicated that the establishment of a Total Quality Management System (TQM) with organizational learning and organizational creativity is a positive and significant relationship.

Key words: Total Quality Management System, organizational learning, organizational creativity, data, spearman

INTRODUCTION

The future success of any organization depends on the success and empowerment of human resources, organization and management can guarantee success. Primarily responsible for the implementation and management should simplify procedures and improve total quality management in the organization and direction of staff to undertake. And in compliance with the following principles to ensure the dynamism and improve the system.

In recent years, various models for establishing quality management in organizations is introduced. In fact, the concept of quality management as a set of concepts, strategies and beliefs are tools that aim to improve the quality of products and services to reduce waste, save resources and costs for the added value and create competitive. Meanwhile, total quality management as a management tool has created an important opportunity to focus on the quality of the institution.

Current world increasingly accelerated industrialization. This requires innovation, flexibility, efficiency and accountability for the survival and success of the organization increases. Meanwhile, total quality management as a management tool has created an important opportunity to focus on the quality of the institution. Current world increasingly accelerated industrialization. This requires innovation, flexibility, efficiency and accountability for the survival and success of the organization increases.

Learning and innovation for organizations that seek survival and effectiveness is a basic need and a lot of organizations are highly innovative and entrepreneurial approaches to improve the effectiveness and flexibility. Organizational learning is one of the important issues that have been raised in recent decades. Organizational learning is the process of improving actions through better knowledge and understanding. Survival and development organizations in the world, the current change requires the ability to timely and appropriate response to repeated environmental changes only organizations can anticipate needs and environmental changes in a timely manner and their survival in the ever-changing environment continue to focus on organizational learning. Learning requires that individuals acquire knowledge in organizations to apply in their behavior. The aim of this study was to investigate the role of the establishment an implementation of Total Quality Management (TQM) on learning and organizational creativity.

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Literature review: Total quality management is one of the most complete and efficient management philosophy properly involves issues of quality and customer satisfaction. In today's world of competition on the one hand the national, regional and international very intense and the changes in technology and market requirements and is of course very fast and rapid analysis, understanding and use of appropriate topics such as TQM can be helpful. The formation of a new approach to the management of total quality management in the early nineteenth century began. In this way many scientists and experts have contributed to any such teachings and have provided recommendations on the development of total quality management. According to Deming, the quality, the continuous improvement of behavior and methods used for processes, products and services and from another perspective means understanding consumers' expectations and then Tdmyn to improve products. Organizational learning is defined as: the way firms build, supplement and organize knowledge and routines to work in conjunction with their activities and within their cultures and also improve organizational efficiency through the use of extensive work force skills, adapt and develop. Organizational learning is a dynamic process that enables organizations to quickly adapt to change.

The period of the post-industrial age, knowledge and knowledge-based era, the era of speed and finally marked the era of creativity and innovation, many organizations are making a profit, income, quality, timely delivery of goods and services and ultimately reliability as target creativity is defined. Therefore, to succeed in this aspect, organizations and companies will need in order to survive and to have a competitive advantage, organizations are innovative (consistency oven Farahani, 1393). Creativity can be a powerful source of competitive advantage in labor. In fact, creativity, innovation and ability to respond appropriately to changes in the organizational structure can be a competitive business environment is.

Organizational creativity can be defined as: the development or adoption of a business idea or behavior that is new to the organization. In other words, organizational innovation organizational process new ideas and find new ways to solve problems of organization (Wong and Chin, 2007).

Given the importance of creativity in organizations and its relationship with organizational learning and the importance of total quality management in the organization intends to achieve total quality management influence on organizational learning and organizational creativity Tehran University of Medical Sciences examine.

Conceptual framework: Farsijani and Samii Neiestani, a study entitled "The Role of Integration Between TQM and Technology Management in Determining the Quality and Innovation Functions (Management of Manufacturing Firms in Central Province)" have done. Information required for this study of 148 managers of manufacturing companies with >500 employees, within the province of the central collection and analysis techniques they have used structural equation modeling. The findings indicate that TQM shows a strong predictive power quality performance but no relationship with innovation performance is no table.

Farahbakhsh a study entitled "Comparison of Simultaneous Continuation and Implementation of a Comprehensive Quality Management and Comprehensive Quality Management Program to Improve Management Effectiveness of Health Management Organizations" have done. This study evaluated two groups: one TQM six hospitals, three schools and a university department and other staff of the two hospitals, one school and university was a staff assistant. The two groups first began with the concept of total quality management and two years later, four university, effective management program to start and continue the same trend in other units dadnd.ba a change in the management style of the questionnaire from the employee's perspective at the time of study and 5 years ago ten-point scale was measured. SPSS Software and data processing were reported as the mean and the amount of change in the 5 years period. The results of this study have shown that the use of the same creative approach and better organization of the various approaches.

Baharestan a study entitled "Analysis of the Impact of Information Technology on Organizational Performance and Total Quality Management" have done. The aim of this study was to analyze the impact of information technology and comprehensive quality management on the performance of the organization. This research is a correlation. To collect data, a questionnaire, information technology and (Martinez *et al*., 2004) inventory TQM (Shalley and Gilson, 2004) and a questionnaire on organizational performance that was made by the researchers was used.

Ghanbari Nejad a study titled "The Effect of Management, Technology and Research and Development (Comprehensive Innovation Management) on Organizational Performance in Terms of Innovation and Quality" have done. This study has been prepared based on a study in which the role of technology management, research and development in order to predict organizational performance in the areas of quality and innovation as the main sources of competitive

advantage for organizations considered is tested. To analyze the data, SPSS and Lisrel Software is used. The findings show that the management of technology, research and development (comprehensive innovation management) have predictive power for power quality performance forecasts for the performance of innovation, higher.

Akbari a study entitled "Analysis of Moderating Role of Organizational Learning in the Relationship Between Total Quality Management and Innovative Performance (Case Study: Iran Medication)" have done. The aim of this study was to analyze the impact of total quality management and organizational learning on innovative performance in the company' drug. The research objective and the method applied, descriptive-survey. The population of the study consisted of 210 employees of drug companies, out of which 136 subjects with Morgan for a period of 6 months of 1391 were selected.

Nevertheless sampling survey is stratified. Using pearson correlation and linear regression and step-by SPSS Software research data were analyzed. The results showed that the comprehensive quality management activities and organizational learning, organizational learning and the innovative performance and there is a significant relationship between total quality management and innovative performance. The results showed that the relationship between total quality management and organizational learning in innovative performance moderator's role and impact on innovative performance and reduces total quality management.

On the other hand in this study to test the conceptual model of structural equation modeling was used showed good fitness model and therefore is presented as an experimental model. John (2005) in their study entitled "Development of Quality Standards for Use in Higher Education Institutions in Turkey" found that implementing a checklist of quality standards on the basis of the ISO quality model led to the creation of the faculty dagvs. This checklist is used to define management strategies at the school to lead to quality model. The executive model to provide customer satisfaction.

Beard conducted a study entitled "Process Validation and Organizational Learning Capability in Higher Education Institutions" have done. The results of this study suggest that indicators of organizational learning, a common identity and ideas, teamwork and group learning, sharing of information and ideas systematically and the leader of employee skills and competitiveness is. Pandey and Sharma (2009) conducted a study entitled "Organizational Factors Affecting Employee Creativity" and he finally came to the conclusion that the intensity of the organizational structure of creativity, leadership style and organizational reward system is affected. Decentralized structure, transformational leadership style, participation in activities, awarding bonuses to satisfy internal needs individuals lead, the factors that affected subordinates creativity.

The main hypotheses:

- The establishment of a positive and significant relationship with TPM on organizational learning
- The implementation of TQM Systems on organizational creativity and significant positive relationship

Hypotheses:

- The continuous search for ways to improve the quality and organizational learning have a significant positive relationship
- The continuous search for ways to improve the quality and organizational creativity and significant positive relationship
- The involvement of all staff and organizational learning have a significant positive relationship
- The involvement of all employees and organizational creativity is a positive and significant relationship
- Managerial leadership and organizational learning have a significant positive relationship
- Managerial leadership and organizational creativity and significant positive relationship
- Corporate culture and organizational learning have a significant positive relationship
- Corporate culture and organizational creativity and significant positive relationship
- Customer and organizational learning have a significant positive relationship
- Customer and organizational creativity and significant positive relationship

MATERIALS AND METHODS

This study is a kind of "applied research" and the method of data collection, type "descriptive research-survey" is. Because researchers are trying to determine the correlation between variables research, the study of "solidarity work" is. The population in this study is that the number of staff Tehran University of Medical Sciences and the population of 17 thousand people is unlimited. Since, gather information from all the statistical population is practically impossible (even if it is possible, both in terms of time, cost and other requirements is not possible), a sample of the population will be selected. The sampling method used in this study for example stratified proportional random sampling of each sample will be proportional to the size of the unit.

Sampling was conducted using a sample of 384 was selected due to the sample size. The instrument used to collect data in this study 3 organizational learning questionnaire TQM (Lam *et al*., 2011) and organizational creativity randsip part of the questionnaire (1979). The reliability of the questionnaire study were tested using Cronbach's alpha for each of the variables and criteria in such a way that their respective Cronbach's alpha coefficient was calculated using SPSS Software. If the value obtained for Cronbach's alpha equal to or >0.7 and <0.8, the reliability measurement is considered acceptable. It comes back from the table, all, Cronbach's alpha values >0.7 are obtained. Also remove any items of necessity because the alpha values obtained are acceptable. As a result of this research questionnaire that gauges it is the reliability necessary to measure variables and criteria related to them is important (Table 1).

Table 1: Number of questions and Cronbach's alpha coefficient

Rows	Variable name	Question	Stability
	TQM		
1	Continuous search forways to improve quality	1-5	72
2	Involvement of all employees	6-8	72
3	Managerial leadership	15-19	70
4	Corporate culture	20-22	71
5	Customer orientation	9-14	74
Total		1-22	84
6	Organisational learning	1-24	82
7	Organizational creativity	1-14	86

RESULTS AND DISCUSSION

Check gender of the respondents shows that 2.67% of men and 32% of them are women. The greater part of the respondents are male:

- Check the age of the respondents indicate that 9/45% between 20 and 30, 8/48% between 31 and 40 years, 7.3% between 41 and 50 and 8.0% >50 years
- The survey shows that 15.5% of respondents education diploma; 26.8% of associate degree, bachelor's 8.37% and 4.19% of master's degree or higher
- The survey shows that 13.6% of respondents experience of individuals under 5, 24.4% between 5-10 years, 5.42% of 10-15 and 2/15% between 15 and 20 years and 2/4 are >20 years (Table 2)

Total quality management while through excellent management, employee involvement, continuous improvement and customer-oriented support not only a management tool to improve quality but also can be used to promote organizational learning and creativity so it is recommended that the relevant agencies be aware of the fact. Total quality management is very important to increase the authority and encourage staff to suggest

Table 2: Results hpypothses

Rows	Hypothesis	Spearman	Significance levels	Results
1	Deployment of TPM and organizational learning have a significant positive relationship	667	0	Significant
2	Deployment of TQM and organizational creativity and significant positive relationship	114	26	Significant
3	Continuous search for ways to improve the quality and organizational learning have a significant positive relationship	606	0	Significant
4	Continuous search for ways to improve the quality and organizational creativity and significant positive relationship	53	306	Not significant
5	Involvement of all staff and organizational learning have a significant positive relationship	574	0	Significant
6	Involvement of all employees and organizational creativity is a positive and significant relationship	109	34	Significant
7	Management leadership and organizational learning have a significant positive relationship	367	0	Significant
8	Management leadership and organizational creativity and significant positive relationship	516	0	Significant
9	Corporate culture and organizational learning have a significant positive relationship	166	1	Significant
10	Corporate culture and organizational creativity and significant positive relationship	15	778	Not significant
11	Customer and organizational learning have a significant positive relationship	518	0	Significant
12	Customer and organizational creativity and significant positive relationship	136	8	Significant

Table 3: Index values

Indicators	Improve quality	Involvement of all employees	Managerial leadership	Corporate culture	Customer orientation	Organisational learning	Organizational creativity
Number	381.0	381.0	381.0	381.0	381.0	381.0	381.0
Average	8735.2	7480.2	8761.2	7323.2	8211.2	9236.2	1556.3
Standard deviation	55825.0	7480.2	8761.2	7323.2	8211.2	9236.2	1556.3
The absolute highest standard deviation	104.0	159.0	116.0	218.0	139.0	51.0	105.0
The highest positive deviation	70.0	103.0	71.0	218.0	51.0	28.0	105.0
The highest negative deviation	-104.0	-159.0	-116.0	-218.0	-139.0	-51.0	-56.0
Kolmogorov-Smirnov	26.2	95.3	256.2	261.4	716.2	999.0	40.2
The significance level	1.0	0.0	0.0	0.0	0.0	272.0	0.0

possible ways to improve the quality of its tasks. Total quality management while through excellent management, employee involvement, continuous improvement and customer-oriented support not only a management tool to improve quality but also can be used to promote organizational learning. It is therefore recommended that the agency is aware of the fact (Table 3).

Learning in organizations is inevitable because the competitive atmosphere between organizations need managers to overcome the obstacles and constraints and strengthening collaborative culture to achieve organizational excellence requires. The results obtained in this study with the results of Huang and Colleagues, Ghanbari race Asqfn series Mohammadi German and Parliament is the same. Total quality management approach as a successful method of organization management its ability to improve many aspects of the administrative system is shown. According to the actual needs of employees, continuous improvement methods and avoidance of fixed standards, participation of different stakeholders and encouraging teamwork to solve problems, based on the concepts of total quality management principles which are used in training. TQM is a management issue new emphasis on quality and continuous improvement of it so that the receiver of goods or services satisfaction (customer) is provided.

CONCLUSION

It depends on the support of senior management to create and change the quality, use all the abilities of employees by involving them in actions and decisions, continuing education of employees, according to customer needs, making decisions based on facts gathered through data and statistics are obtained and is not satisfied with the existing good practices and continuous improvement of quality.

The results of the Tehran University of Medical Sciences, the researchers if you want the results of their research they should do so with caution. It is likely that different results can be achieved by changing the location or time of the study.

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