

An Investigation of the Role of Continuous Improvement Excellence Model

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Abstract: The current survey investigates the continuous improvement excellence model view points of staff in this company. The research method was a descriptive survey and the statistical population consisted of all the staff of Company. (2584 people) out of which 334 were selected as statistical sample, using random clustered sampling and considering the number of population. The research instrument was a researcher made questionnaire using 5-scale Likert and including 32 statements. The validity of the questionnaire was substantiated by specialists and also a number of the participants. The reliability of the questionnaire was substantiated by specialists and also a number of the participants. The reliability of the questionnaire proved to be 0.96 using Cronbach's Alpha coefficients. To analyze the research data, the descriptive statistics consist of abundance, percent, average, standard deviation and the deductive statistics include single variable test and manova analysis, are used. The findings revealed that role of continuous improvement excellence model the leadership, strategy, people, partnerships resources, processes products services customer results, people results, key results, society results were more than average ($p < 0.05$), in regard with demographic data amount, no significant difference was seen in staffs points of view (gender, professional background, field of study and position).

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1- Introduction

Ultimate goal of each human system is moving toward development, evolution and excellence, and its evolution and excellence depend on growth, development, expansion and evolution of its components (Jafari Ghouschi, 2005). In today world, profound changes in innovative management systems and methods have occurred and completely different attitudes have governed on managing organizations along with dramatic changes which have taken place in social, economic and technological dimensions. Such concepts which find a significant place in international organizations are quality, continuous improvement and model of excellence of organizations (Riahi, 2005). In the literature, the word "quality" has different meanings. Piterzo & Waterman (1982) defined quality as excellence. Fagnbam (1983) defined it as value, Grinal & Juran (1988) defined it as applicability, and Gronorous defined it as customer satisfaction. These definitions demonstrate different aspects of quality. Some famous thinkers such as Doming, Piterzo and . . . claim that quality is the basis of excellence (Sharma & Talwar, 2007). Effort to propose a total definition was started from 1982 by publishing a book called *seeking excellence* by Piterzo &

Waterman (Park & Dahlgaard, 2007). Excellence was a word which replaced some words such as quality and quality management. The reason of this replacement was the existence of a lot of ambiguity in the word "quality management" (Adbanjo, 2008). Model of excellence, the basis of quality management, as a model of quality determines some aspects that organization should consider to improve results as well as characteristics of some results that should be considered to obtain excellence through enabling criteria. This model proposes a pattern of relations between enablers and results as well as criteria forming each field (Boul-llusar et al, 2005). Model of excellence include different elements of total quality management in which some bases have been designed to show processes of analysis and change in organization. Outlook of the model is a new action-based method which is based on a systematic principle and structure of thought (Castilla & Rosi, 2008). The model of organizational excellence is useful for promoting quality improvement (Vallejo & Saura, 2006). Also, it is a recognition tool to self-evaluate current health of organization (Mir Fakhroodin et al, 2009). On the other hand, evaluation by helping qualitative systems such as total quality management and the model of

organizational excellence is raised as one of the methods to evaluate performance of organizations and rewards of organizational excellence and quality draw attentions of many organizations and also have helped to clear concepts and key components of quality management (Dale et al, 1997). Using these models exceeds different manufacturing and service sectors and involves public organizations (Johan et al, 2007). Model of excellence (EFQM) is suitable to identify problems of organization but does not any plan and policy for organization (Nazemi, 2008). Also, the other weakness of this model is the problem of making it operating, since terms and concepts used in this model is so general that can be interpreted in different ways and every organization will be enable to create different indicators of evaluation by this headings (Neely et al, 2000).

Kaye & Dayson (1999) believe that this model should be proportionate with the type of organization and is not applicable in any organization but unlike this idea, EFQM founders believe that the model is applicable for all organizations. In past, this model is strange for all service and voluntary organizations because it was rooted in business structure. But now, it has been proved that this model can be a strong managerial tool for such organizations (Donnelly, 2000). Of course, implementing the model in a service environment is always difficult (Pitt, 1999). Maybe, it can be said that one of the weaknesses of this model is implementing it in a service environment because it does not consider all related parts in this regard. The other problem to implement this model in service organizations may happen is that the model is complicated and ambiguous for such environments. These are because EFQM is a general model and such model cannot cover professional aspects of an organization (Vallejo & Saura, 2006). However, so far this model has been used in service and health environment with some modifications. Studies show that application of this model is successful in organization of private sector that organization of public sector (Osseo, 2002).

These models are based on values of total quality management and do not solely rely on profit. But it also pays attention to other stimuli and citizens enablers, social responsibilities, human resources, social and personal promotion and excellence and protecting environment (Garvara & Isaksoon, 2001). This model is based on 9 criteria. Five criteria of the model are related to enablers (leadership criteria, staff criteria, strategy criteria, companies and resources criteria, processes criteria, services and products) which represent components of an organization and how they interact with each other and four criteria are related to results (staff results criteria, costumers results criteria, society results

criteria, key results criteria) which include results from organization performance and introduce desired results from implementing enablers (Gerami & Nouralizadeh, 2008).

In the studying service company, an evolutionary way has taken place according to huge policies of service companies which consider evolution and using innovative management patterns and serving people in order. And this company is known as one of the pioneered service companies in including and using innovative management systems and the model of excellence. But in recent years, despite including quality systems such as series of ISO 9000 and some models like organizational excellence and ...; what has been obtained is expressing unsatisfactory by staff and directors from including these kinds of systems, in fact, quality systems and models of excellence could not meet staff and service receivers' expectations, adequately. Identifying methods to improve service quality in different areas based on the model of excellence is one the ways through which it can help continuous improvement of service quality in this organization. With respect to what was said, present study tries to investigate the role of some strategies of continuous improvement of excellence mode based on nine-tipple dimensions of the model.

The most important application of the model (EFQM) is doing self-evaluation and identifying improvable fields on an organization (Adel & Tavakoli, 2006). In addition, (EFQM) is an organizational change model. Creating change, regardless of what extent it is profitable, is always difficult. Therefore, it cannot be denied that doing change has always some challenges and faces to some obstacles (Irannejad Parizi & Sasan Gohar, 2003).

Finally, basic indicators of the model (EFQM) constitute the following factors:

- Results: results which have been obtained by organization. (What?)
- Statue of organization and management (How?) (Wester vel, 2003).

Generally, the importance of research can be known in investigating strategies of continuous improvement of innovative management systems with a standard model which is accepted globally. Thus, individual way of successful to come over on current challenges of globalization is organizing organizational plans based on efficiency principles. A plan which focuses is on making efficiency of how to use resources. In this regard, many studies have been conducted on identifying and distributing key factors of organizations success in order to improve their performance which resulted in some national rewards and models of excellence such as Doming and Baldrij Business, and (EFGM). According to what was

explained, the studying service company put the necessity of implementing a broad study in this regard in order to improve serving stakeholders of the company.

Riahi (2009) conducted a study as "investigating factors influencing efficiency of total quality management in 5 governmental ministries located in Tehran". This study aims to investigate the relationship between efficiency factors of total quality management and measuring efficiency to determine their preferences.

Statistical community used in this study, is considered as managers, supervisors and experts of these five governmental ministries in Tehran and also their customers. The results showed that:

1. Attendance of organizations in public sector to human dignity while serving people causes to increase the level of their satisfaction.
2. Trusting customers as an accepted norm in organization and trusting their words cause to increasing their trust on organization services, although organization has to pay the costs of this trust.
3. Accuracy of organization actions, managers' efforts to reduce errors in organization and creating motivating systems to serve customers correctly cause to increase the expected efficiency.
4. Presence of knowledgeable and empowered staff, staff's educations related to services which they serve, and existence of training courses and increasing staff's knowledge and skill cause to increase the expected efficiency.
5. Accountability of organization to people, paying attention to customer satisfactions and commitment to accountability of managers to people demands cause to increase the expected efficiency.

A study was conducted by Mojdehi as "evaluating Office of Standards and Industrial Research of Iran of Sistan-o-Balouchestan Province according to the model of organizational excellence (EFQM) and Iran National Quality Award (INQA)" in order to evaluate Office of Standards and Industrial Research of Iran of Sistan-o-Balouchestan Province by using the model of excellence. By comparing the results from the model (EFQM) and (INQA), it was observed that it should be necessary to pay attention to final product, because process standards are not fully implemented in Iran.

In a study, Dehnavieh et al (2011) titled "the obstacles of using Iran National Quality Award in medical sciences of Iran and giving a strategy"

concluded that the most important obstacles included special characteristics of university environment, weakness in performance of top managers, weak participation, weakness in innovation, weakness in communication, weakness in making beds and stabilizing improvement process, weakness in allocating resources and problems coming from environmental factors.

Tari (2005) found in a study titled "using the model of excellence (EFQM) in universities of Spain" with the aim of self-evaluation model of European excellent model in five universities of Spain that increasing management commitment, planning for self-evaluation, forming some teams for training and self-evaluating, determining modifications, implementing modifications and reviewing are some steps that a university can take to reach better performance.

In the model of organizational excellence (EFQM), empirical observations suggest using self-evaluation model to identify improvable areas and evaluate company performance. This study states that paying attention to these items is important for successful of organizations in the way of excellence.

1. Continuous improvement tasks are not only for organization management team, but also staff should be trained and empowered to participate in the improvement process.
2. Staff should be aware of effects and costs coming from giving incomplete information in continuous improvement attempts.
3. Staff should be aware of concepts of quality management and tools to implement quality in organization.
4. Managers should increase abilities and capacities and pay more attention to measuring process and performance of enablers, instead of paying attention only to measuring key results of the performance.

Jung & Vang (2006) conducted a study titled "investigating the relationship between total quality management and continuous improvement of international project management", the results showed that staff's relationships (including empowerment/staff interference, human issues, clear relationships, broad organizational trainings) have had the most effects in reaching continuous improvement of international project management. Leadership factor (including commitment of top managers to quality, existence of goal and strategy, existence of broad culture of organizational quality, existence of goals for quality actions) has been the second factor influencing improvement of international project management.

2-Study questions

1. To what extent continuous improvement strategies of excellence model in field of leadership plays a role, in the service company's staff viewpoint?
2. To what extent continuous improvement strategies of excellence model in field of strategy plays a role, in the service company's staff viewpoint?
3. To what extent continuous improvement strategies of excellence model in field of staff plays a role, in the service company's staff viewpoint?
4. To what extent continuous improvement strategies of excellence model in field of companies and resources plays a role, in the service company's staff viewpoint?
5. To what extent continuous improvement strategies of excellence model in field of processes, services and products plays a role, in the service company's staff viewpoint?
6. To what extent continuous improvement strategies of excellence model in field of customers' results plays a role, in the service company's staff viewpoint?
7. To what extent continuous improvement strategies of excellence model in field of staff's results plays a role, in the service company's staff viewpoint?
8. To what extent continuous improvement strategies of excellence model in field of society results plays a role, in the service company's staff viewpoint?
9. To what extent continuous improvement strategies of excellence model in field of key

- results plays a role, in the service company's staff viewpoint?
10. Is there any significant difference between responders' opinions with respect to demographic factors (gender, age, level of education, major, work experience, type of employment)?

3-Methodology, community, sampling and methods of analyzing data of the study

Method of the present study is descriptive – survey. Statistical community of this study includes all staff of the company in number of 2584, of which 334 people were selected by using Coockran's formula and stratified random sampling. The tool for gathering data was researcher made questionnaire on investigating strategies of continuous improvement of excellence model includes 32 questions in 9 fields of leadership, strategy, staff, companies and resources, process and services and products, customers' results, staff's results, society result and key results in Likret's 5-degree scale. Formal validity and content validity of the questionnaire were verified by subjects, and experts in the field of excellence model and also consultants, respectively. Perpetuity of the questionnaire was estimated 0.96 by using Croonbach's Alfa coefficient. Inferential statistics including t-variable test and analyzing multi-way variance were used to analyze the data.

4-Analyzing and interpreting findings

Question 1: To what extent continuous improvement strategies of excellence model in field of leadership plays a role, in the service company's staff viewpoint?

Table (1-4): comparison of mean score of leadership with hypothetical average 3

Item	Mean	Standard derivation	Derivation of the mean	of t	Degree of freedom	Level of significance
Field of leadership	3.14	0.68	0.040	3.484	287	0.001

According to findings in table (1-4), mean score in leadership of the service company is 3.14. Calculated t is larger than t on the table. So, the role of continuous improvement strategies in the model of excellence in leadership is more than the average level.

Question 2: To what extent continuous improvement strategies of excellence model in field of strategy plays a role, in the service company's staff viewpoint?

Table (2-4): comparison of mean score of strategy with hypothetical average 3

Item	Mean	Standard derivation	Derivation of the mean	of t	Degree of freedom	Level of significance
Field of strategy	3.18	0.54	0.32	5.74	287	0.001

According to findings in table (2-4), mean score in strategy of the service company is 3.18. Calculated t is larger than t on the table. So, the role of continuous

improvement strategies in the model of excellence in strategy is more than the average level.

Question 3: To what extent continuous improvement strategies of excellence model in field of staff plays a role, in the service company's staff viewpoint?

Table (3-4): comparison of mean score of staff with hypothetical average 3

Item	Mean	Standard derivation	Derivation of the mean	t	Degree of freedom	Level of significance
Field of staff	2.99	0.63	0.037	0.180	287	0.858

According to findings in table (3-4), mean score in staff of the service company is 2.99. Calculated t is larger than t on the table. So, the role of continuous improvement strategies in the model of excellence in staff is more than the average level.

Question 4: To what extent continuous improvement strategies of excellence model in field of companies and resources plays a role, in the service company's staff viewpoint?

Table (4-4): comparison of mean score of companies and resources with hypothetical average 3

Item	Mean	Standard derivation	Derivation of the mean	t	Degree of freedom	Level of significance
Field of companies and resources	3.14	0.69	0.041	3.50	287	0.001

According to findings in table (4-4), mean score in companies and resources of the service company is 3.14. Calculated t is larger than t on the table. So, the role of continuous improvement strategies in the model of excellence in companies and resources is more than the average level.

Question 5: To what extent continuous improvement strategies of excellence model in field of processes, services and products plays a role, in the service company's staff viewpoint?

Table (5-4): comparison of mean score of processes, services and products with hypothetical average 3

Item	Mean	Standard derivation	Derivation of the mean	t	Degree of freedom	Level of significance
Field of processes, services and products	3.18	0.62	0.036	4.901	287	0.001

According to findings in table (5-4), mean score in processes, services and products of the service company is 3.18. Calculated t is larger than t on the table. So, the role of continuous improvement strategies in the model of excellence in processes, services and products is more than the average level.

Question 6: To what extent continuous improvement strategies of excellence model in field of customers' results plays a role, in the service company's staff viewpoint?

Table (6-4): comparison of mean score of customers' results with hypothetical average 3

Item	Mean	Standard derivation	Derivation of the mean	t	Degree of freedom	Level of significance
Field of customers' results	3.21	0.72	0.042	5.063	287	0.001

According to findings in table (6-4), mean score in customers' results of the service company is 3.21. Calculated t is larger than t on the table. So, the role of continuous improvement strategies in the model of excellence in customers' results is more than the average level.

Question 7: To what extent continuous improvement strategies of excellence model in field of staff's results plays a role, in the service company's staff viewpoint?

Table (7-4): comparison of mean score of staff's results with hypothetical average 3

Item	Mean	Standard derivation	Derivation of the mean	t	Degree of freedom	Level of significance
Field of staff's results	3.22	0.68	0.040	3.658	287	0.001

According to findings in table (7-4), mean score in staff's results of the service company is 3.22. Calculated t is larger than t on the table. So, the role of continuous improvement strategies in the model of excellence in staff's results is more than the average level.

Question 8: To what extent continuous improvement strategies of excellence model in field of society's results plays a role, in the service company's staff viewpoint?

Table (8-4): comparison of mean score of society's results with hypothetical average 3

Item	Mean	Standard derivation	Derivation of the mean	t	Degree of freedom	Level of significance
Field of society's results	3.02	0.67	0.039	0.532	287	0.595

According to findings in table (8-4), mean score in society's results of the service company is 3.02. Calculated t is larger than t on the table. So, the role of continuous improvement strategies in the model of excellence in society's results is more than the average level.

Question 9: To what extent continuous improvement strategies of excellence model in field of key results plays a role, in the service company's staff viewpoint?

Table (9-4): comparison of mean score of key results with hypothetical average 3

Item	Mean	Standard derivation	Derivation of the mean	t	Degree of freedom	Level of significance
Field of key results	3.15	0.67	0.039	3.995	287	0.001

According to findings in table (9-4), mean score in key results of the service company is 3.15. Calculated t is larger than t on the table. So, the role of continuous improvement strategies in the model of excellence in key results is more than the average level.

Question 10: Is there any significant difference between responders' opinions with respect to demographic factors (gender, age, level of education, major, work experience, type of employment)?

Table (10-4): multiple-way variance analyzing scores by using the model of excellence in terms of some variables such as gender, age, level of education, major, work experience, type of employment

Source	Sum of squares	Degree of freedom	Mean squares	F	Level of significance	The Eta	Statistical capacity
Gender	0.051	1	0.051	0.158	0.691	0.001	0.068
Age	0.079	3	0.026	0.082	0.970	0.001	0.065
Education	0.436	4	0.109	0.339	0.851	0.007	0.126
Work experience	1.767	4	0.442	1.372	0.245	0.026	0.423

The results in table (10-4) show that the scores of level of using excellence model in service company in terms of variables such as gender, age, education level and work experience are not significant.

5-Discussion and Conclusion

The field of leadership is one of the most important and the most determinant issues in directing organizations. The best asset of a leader is the capacity to help staff in order to direct them. A flexible accountable and finally excellent

organization is one which found the capacity to direct in all areas and extended to all levels. In the field of leadership, excellence model determines vision and mission of the organization and facilitates access to it and generates required values for long run success and uses them through suitable actions and behaviors and ensures creating and using management system, by its own. According to what was said, the role of leadership in continuous improvement strategies of excellence model will be explainable. These are strategy, integrated, comprehensive, coordinative

plans which relate organization with its environmental challenges and are based on current and future needs and expectations of stakeholders. This field was established and known through a framework of key processes. Finally, it determines the process of achieving situations desired by organization. Considering excellence pattern of using policy of organization is a method in which organization achieves its goals through a concentrated clear strategy. In fact, organization's strategy is rally organized. Research's interpretation is that quick changes in technology, shifting the world to a global village, different customers with many needs, increased competition in global markets, ongoing changes in organizations, revolutionize organization's way. Hence, organization's policy and strategy have an important role in this case, therefore the role of strategy in continuous improvement of excellence model will be explainable. Staff is fundamental base of an organization; they are full of inspiration, creativity and motivation in the organization and survive it. Today in this competitive world in which industries should be more efficient, using staff more intelligently will lead them to generate more values for their organization. The model of organizational excellence emphasizes that increasing staff's skills and training is critical in utilizing new technologies and creating necessary changes, the other important remark is that staff's dignity and worth have a critical role in organization's success; hence keeping structural – organizational integration is a major management challenge to allow staff being committed and responsible with adequate motivation and authorities and continue job in a correct framework. In model of excellence, staff criteria is third factor of organization empowerment and has a special importance so that excellent organizations direct, develop and utilize all their staff's potential ability in individual, team and organizational levels. They promote fairness and equality, allow their staff to participate in the affairs and empower them. Such organizations pay attention to their staff, communicate and encourage them so that create motivation and commitment to use required skills and knowledge in direction of organizational benefits. According to what was said, also

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