

Investigating the Role of Total Quality Management Eminence Pattern in Strategic Evolution of Organizations

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Abstract: This research has been performed in purpose of definition and explanation of Total quality management advanced model and investigating its role in organizations' strategic evolution. This article is in type of developmental researches and its performance method is survey and library studies. Moreover information collecting tool is taking notes. In literature of subject of this article initially the principles of total quality management has been discussed, so that we can obtain better perception in order to applying this system in business and improvement of organizations' performance. In order to apply total quality management in organizations strategically, we have examined TQM movement in Japan and some cases about using of this method have been mentioned. In fact, in this article the model which has been named Total Quality Management Advanced Model (TQMEX) is based on TQM facts and has been modeled according to instructions of this model. A referendum which has been done in Japan, Hong Kong and South Korea indicates the importance of Japanese system of total quality management advanced model in order to implement total quality management system in organizations. Finally, results and information obtained from this research provide criteria and methods for which are the result of the large organizations' experiences that not only have passed two world's oil crisis and Asian financial crisis successfully, but also have continued their growth while these two crises.

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1. Introduction

The challenge resulted from global competition has led to increase the pressure on organizations in order to improve abilities, skills and quality of products and services. The principles of total quality management (TQM) has been accepted broadly at global level as a device for improvement of organizational performance, organizations' nature and the manner of encounter market's special challenges.

Asian financial crisis which occurred in the middle of 1997 and was began from cash-financial crisis in Thailand, resulted in beginning a chain movement which impressed all Asian countries.

This crisis and created paradoxical changes learned many lessons in order to improve economic and developmental situation in organizations and different Asian countries' industry which has led to widespread changes in these organizations' structure.

These changes have had competent effect on total quality management movement. Total quality management principles has been accepted broadly at global level as a device for improvement of organizational performance, organizations' nature and the manner of encounter market's special challenges.

2. Concept of Total Quality Management (TQM)

In 1990s, total quality management became one of

the most attractive competition strategies for organizations which were exploring significant difference with others.

Academicians and industrialists emphasized this attraction which encourages organization total quality management to focus on customer's needs by improvement process and respect to costs improvement, quality and customer satisfaction.

Total quality management was based on active tracking continuous improvement, perception of organization's internal customers' attitude, training and development in all organizational dimensions.

But some also believed that total quality management philosophy has its limitations. Sitkin's findings show that total quality management is dangerous for discussions such as oversell and its implementation is damaging and this is a part of total quality management inability.

Researchers believe that nowadays total quality management marketing has changed to a special industry and perception of total quality management has been expanded as a result of its multilateral performance.

Luthauns believes that total quality management is not able to perceive future evolutions and suggests that enough time spend on total quality management.

A group also believes that learner organization, because of its interdependence, is the next logical

step in changes' valuation. (Baran-Doust and Rahmani, 2003)

In Japanese industry total quality management has led to wonderful results.

But what does have converted TQM to a necessity? In fact total quality management (TQM) is a kind of total integrity in all over the organization in order to obtain competitive advantage through continuous improvement in all organization's activities.

If we intend to interpret each word in "total quality management", we can say:

- **Quality:** comply with all customers' needs and their implied requirements.
- **Management:** An executive board which completely has become as committee and coordinate.
- Ideally all individuals within the organization should be organized and classified. Based on Deming's researches in 1986, about 94% of problems are related to management and systems which are created through them.

Thus, managers' commitment should be done before frontline workers. Total quality management requires that all individuals within organization including frontline workers involve the process.

Thus, the mentioned definition about total quality management indicates a balance between the real meaning of the word and its ideal state.

Despite years of educational experience in the field of total quality management and leading more than 30 research cases in contact with more than 1000 subjects related to total quality management, the result of experiences and educations has been mentioned in this article.

The obtained results indicate that on average less than 20% of cases have obtained desired result. In fact when I implemented total quality management for the first time, I was in that category of 80%.

I believe that the real value of this method and process in this subject is that this system shows us that in these failures, workers were not guilty, but rather managers are responsible for these failures.

What should do managers for implementing programs and providing suitable devices such as controller of words syllables.

In this research we re-examine Dr. Deming's findings in 1986. In fact in 1993 before death of W.E. Deming, he, in his previous book: "Modern Economy" has changed the effect of structure from 94% to 97%.

If this is true, then how can organizations develop and improve their competent managers?

The answer to this question is in managers' continuous learning which is done in learner

organizations. For example Ford suggests that total quality management provide necessary environment in order to create learner organization.

Total quality management success is related to learning ability, attraction, conformity and performing organization's attitude change and combining them in the organization. For example Barrow admits that this relationship appears in two ways. First: it's a cause and effect relationship. Learner organization is the result of performing total quality management in the organization. Second: there is strong correlation between these two systems, process improvement and organizational learning which are performing in a simultaneous and integral manner.

Garvin explains that if total quality management is done as a philosophy, then a series of techniques can be a cycle for organization's learning. (Baran-Doust and Rahmani, 2003).

3. Organizational Evolution Process:

An old proverb says that the only thing that remains constant in the world is evolution. If evolution be as a part of our daily life, then how can we make it under control rather than be controlled by it. When evolution becomes a longtime process in the organization, this will lead to evolution in organization's culture.

An obvious example of this situation is learner organization.

When individuals within the organization are motivated to present new ideas and identify failings, these two subjects will be of very important factors in organization's success.

Let's go back to step and look at traditional strategic evolution processes which can summarize it as 5 steps:

1. Purpose, 2. Mission, 3. Behavior, 4. Culture.

But in modern model and method, this process will be as follow:

1. Operation, 2. Behavior, 3. Mission, 4. Imagination and purpose, 5. Culture.

In fact, the first step is not a new thing. Formerly, Pitter and Waterman (1982) based on researches and findings obtained from 46 successful companies indicated that most of them have selected Operation as the first step so that they can obtain business improvement through it.

2. The new theory suggests that it's only Operation which leads to staff's behavioral evolution. (R. H. Waterman and T. J. Peters, 1982).

This is caused by organizational learning process.

In this direction Reg Warrancy states that there is no learning without operation and no operation without learning.

If the learning processes are done successfully in organization, then organizational behavior leads to a dynamic and challenging state. Finally this will change top managers' perception about organization's mission. Thus, those will be successful who are aware of organization's mission and step toward better behavior.

When top managers in the organizations perform organizational mission in a better manner, this shifts organization to new definition of global competition.

As soon as a new structure is formed in the organization, this will result in creating new purpose within the organization which finally leads to new culture within the organization. One of the best examples of creating new culture in the organization is Kaisen model which in fact is a Japanese word and means continuous improvement. This new model has many successful types. Many successful American and Japanese companies have emphasized on the subject of completely open workspace in the organization.

Of very common examples are completely open official processes in official environments and factory design. In Malaysia, companies such as Sony-Hewlett Packard hold their top managers' meetings completely open so that through which they can transfer organizational purposes to all organizational and sale levels, directly. McDonald restaurants have begun to build completely open kitchens so that even passers can observe production process directly.

4. Quality Management's Strategic Evolution:

Always, evolutions in the organizations don't lead to success.

In fact if evolutions don't direct correctly, this will be similar to Titanic ship which try to prevent collision with icebergs but final result is tragic. In other words, if evolution doesn't direct and organized effectively, then the better choice is that: evolution is that we don't change! For example many see engineers believe that if Titanic ship in its front part had appropriate measures against icebergs through appropriate design, then never was drowned.

Mr. Rekner in a conference in 1995 has predicted the future of this subject as following:

- By entering multinational and social markets, the quality competition will be intense.
- There will be created many requests for suppliers.
- ISO9000 will embraced all over the world..
- Awarding prizes such as European quality prize (Baldrige) cause motivation of

companies and this will lead to quality expansion in all over the world.

Jouran's predictions have been ascertained and will be continued for years, specially during two past years. ISO9000 standard series have been expanded like an explosion in all over the world and also have become a known fact. If we assume the year 1990 as a base, then the number of registered companies which have used quality standards, have had 100% growth. In late 1997, in a survey which was done by Mobil Company, it was specified that about 200000 companies around the world have received ISO9000 standard. Some of these companies such as Telecom British have tens of thousands of employees (Samuel K.M.Ho., 1999). For what reason quality standard owners receive this license. Some of the most important quality standard licenses and prizes are as follows:

- Deming Prize
- Quality Certificate of US (Quality Award "MBNQA" USA Malcolm Baldrige National

Deming prizes are received by Japanese companies except following cases:

- Taiwan Tube (Philips)
- Florida Light Power
- Division Lucent Technology (Power).

European quality licenses and American quality license also are two very strong models. If your country is none of these countries or doesn't have any bond with them, then you can choose one of these models as your organization's total quality management structure. Or use your country's total quality management system.

Very likely, the type of system you use is dependent on your company's geographic situation or its origin. If your company is placed in United States or has strong American origins, then the system you choose and is the more suitable one, is in type of MBNQA.

Both MBNQA and EQA models are comparable with respect to scoring and have similar scoring and scores in more than 1000 scores. In final making decision, determinant factor is probably organization's geographic situation which determines quality standard type. After selecting desired model, it's turn to provide required equipment in order to implement quality model (Samuel K. M. Ho., 1999).

Total quality management system is very similar to ISO9000. Independent of quality management system implementation, TQM must consider quality improvement and customers' factor. (Such as ISO9004.4 Standard)

A very suitable method in order to implement TQM is in fact following the example of companies which

have implemented this system successfully. UK pioneered implementing ISO9000 in Europe and this led to beginning a very large movement in Europe.

British quality organization and institute as the leader of this issue in Europe resulted in EQA model expansion in Europe broadly and many companies use this model for their assessment.

In fact the purpose of this CEO is that encourage companies in UK to use this model. Mr. Frank Malcolm believes that using this method results in creating evolutions which lead to organizational improvement.

Despite ISO9000 model, self-assessment models such as mentioned 3 models tell organizations what to do. Moreover mentioned models have ability to say people what performance they should have and how to do it and support it. Thus, in order to obtain mentioned quality methods we need a proved model.

5. Total Quality Management Advanced Model

In order to have a total and systematic method to implement total quality management, we should initially develop a conceptual model. This model should be simple, logical and comprehensive enough. During the last post I had in foreigner countries, as the quality affairs specialist I was responsible for quality system designing in Malaysia during a 5 year program in order to apply in industry.

In consequence of the results obtained from this mission and also previous experiences and the researches I had about the best total quality management implementation performance, I presented the following total quality management model as the best method in order to implement total quality management.

This idea includes step by step processes which have the ability to implement in all over the world and finally it leads to implement total quality management in best possible form which has been presented in figure 1. (Ho. 1995)

The advanced total quality management model uses an integrated and coordinated method in order to support total quality management system. In fact this management system is a continuous improvement process which engages organization to be based on management quality. This model includes elements which are based on explaining TQM philosophy and implement it at all levels of the organization. The elements of TQM-9000 TQMEX ISO model which has been mentioned before will be explained more.

Japanese 5S Model

In fact 5S is a technique in order to create and protect a healthy work environment with high quality in the organization. This word, in fact indicates 5 Japanese

words which English Meanings and specific samples have been presented in table 1.

6. Specific Examples of English Meaning of Japanese Word

Structurize Seiri: to organize, discarding worthless things.

Systematize Seiton: to methodize, retrieving a document in 30 seconds.

Sanitize Seiso: to make healthy, personal responsibility of cleaning.

Standardize Seiketsu: to standardize, transparency in saving data.

Self-discipline Shitsuke: creating discipline, 5S daily completion.

Table 1: 5S technique

This technique was used broadly in Japan. Most of individuals who have used this technique believe that not only this method is suitable for beauty and physical improvement of work environment, but also using it will be very useful for organization's processes improvement.

Apparently 5S techniques are applicable in all life's aspects. Many routine problems can be solved according to this technique. Unfortunately using this powerful method in order to improve quality is not known in west world. In order to implement this method simply we can use auditing and check lists provided by author (S.K, Ho 1995).

For example in using this method in Hong Kong based on previous successful instructions, recently Industry section of government has approved a plan. According to this plan about 2500 individuals of senior managers in country's industry are trained in this technique, while this plan's costs and budget are provided by government and project officer is the inventor of technique which should implement this project in country's industry during a 2 years plan.

7. Business and Organizational Processes Reengineering (BPR)

Homer and Champi has defined reengineering as following: re-thinking about organization's foundation and structure, re-designing organization's processes basically in order to obtain significant improvements which are accomplished critically and simultaneously from company's performances such as costs, quality, services and organization's performance rate.

In fact, reengineering make managers have a re-look at organization's traditional and old processes and engage them to focus on customers.

Many parent and leader companies in the world have obtained current situation through applying reengineering. Companies which have used

reengineering techniques have obtained significant results such as:

Improve relations with customer

- Decreasing life cycle in relation to market and marketing
- Increasing company's production ability
- Decreasing faults and defects
- Increasing company's profitability

In fact reengineering use a series of known and specific techniques in order to improve organizational outcomes and make more effective organization's traditional structure. This technique uses methods such as exact definition of work process, assessment and its accurate measurement, and reengineering in organization conflicts in order to improve customer's satisfaction and other different methods.

8. Quality Control Class (QCC)

Quality control circle in fact is a small group which includes organizational individuals and employees who work jointly so that help to cases such as organization's performance improvement, respect to personnel, creating work groups with high morale through development and improvement of group members' unlimited potential.

Japanese people experienced that about 95% of quality-related problems in many organizations can be solved through simple quality control methods such as 7 quality control tools (QC7) (Inshikawa, 1986).

These 7 tools are:

- Parato diagram
- Information ranking
- Data registration form
- Histogram
- Transmittance diagram
- Control tables and diagrams

These tools help quality control class to hold brainstorming sessions systematically and analyze current issues critically and faster.

ISO9000

ISO9000 group and family include 7 standard types which are placed consequently. Out of these 7 standards, the only important and notable ones are: ISO 9003, ISO 9002, ISO 9001. In fact about 99% of registered ISOs in companies are in type of ISO, ISO 9001 and ISO 9002. 14 remained standards are only used as helper and guider.

Thus, the purpose of explaining this article is only to review more detailed ISO 9001 which was presented. ISO 9001 in fact is a quality system model which is used in order to guarantee quality in design, development, production, installation and services.

This standard is a comprehensive model in quality systems presented by ISO.

9. Pure Production Maintain (TPM)

In 1972, Japanese board of maintaining JIPM Company defined this technique as one of the maintaining units.

In fact this system guarantees that all equipments and facilities in organization's each section such as design, production, construct and maintaining, work without any defect during their consumption life. Since the purpose of this technique is to increase the ability to product and operate equipment, the expression TPM has been known as pure production management (Sengu, 1992).

10. Validity of Advanced Quality Management Model

One of the important abilities of this method is that it can obtain total quality management through a step by step process. Moreover every these steps can be used exclusively and separately. Obtained results from each step also are assessed separately. This feature in fact is a great advantage. Because companies can select options which focus on their activities.

And also it's possible that if a company has not implemented a step, can go back to previous step.

In fact this model is a simple and flexible model. In order to prove that TQMEX-presented models are in type of efficient and perfect models and have proper quality and management aspects, Mr. Fang and me designed a questionnaire based on audits and examinations we had from Japanese, Hong Kong and UK companies.

Findings resulted from this research were published in HO and Fung magazine.

Analysis of results obtained from research, provided evidences which states existing differences and similarities in various companies in order to implement TQMEX. The total quality management issue is very important to all companies and this indicates that nowadays TQM is not only used in Japan but also is a global method.

Three main and final questions proposed in questionnaire, are:

1. Competency
2. Faults and defects
3. Possible improvements in their quality management system (including ISO 900 or based on TQM)

The results and issues presented by quality executive managers comprise important TQM-related information and suggestions that can be used by companies which tend to implement this system in their company.

- a. NEC company
- Competency and capability: to concentrate company's staff's consideration for strategic goals in competitive markets.
 - Fault and defect: it just provides necessary conditions to present to foreigner markets through ISO 9000 certificate.
 - Development and improvement: includes ultra-qualification concepts such as: safety, environment protection and so on. And expanding their goals to other dimensions and issues.
- b. SUNYO Company
- Competency and capability: creating consensus between executive directors. Spirit organization's members and improving corrective activities and efficiency in organization.
 - Faults and defects: organization's indirect sections need more conformity with TQM in a larger scale.
 - Improvement and development: emphasizing human factor in organization, leading by senior managers. Tendency to customer at all levels of organization.
- c. Tokyo electricity distribution company:
- Competency and capability: staff was familiarized perfectly with concept of design-perform-audit-reaction. Quality control groups had great improvement.
 - Faults and defects: organization's managers and respondents forgot improvement activities and consequently operation's form and appearance were considered rather than operation's origin.
 - Improvements: led to creating and developing total quality management system technically. TQM should be executed by organization's managers, not by TQM counselors. This method should be explained completely to managers.
- d. Nevita Motor Company:
- Competency and capability: organization's all staff at each level of organization with respect to their responsibility type undertakes to follow the pattern of respect to customer. By using main and important methods in quality control, staff considered this

system in order to improve the company.

- Faults and defects: there was no defect while performance.
- Improvements and developments: the concept of TQM in order to create a constant structure for organization under any conditions had continued permanently. Although naturally concepts which total quality management emphasize, should be changed with respect to variable conditions (according to environment changes).

For example respect to environment, organization's strategy about marketing or customer's satisfaction.

Evidences obtained from TQM performance in world's successful companies, obviously indicate that total quality management is like a trip through which organizations can go or get to anywhere. Managers' expectations from this system are creating large evolutions in organization with purpose of being better.

Thus we can simply understand that why these companies during two past crises (oil crisis and Asian financial crisis) not only have remained but also grown. In fact during 50 past years, these companies have laid their foundation based on TQM principles and built their business activities based on models presented by quality leaders such as Deming, Juran and so on.

Despite some differences in methods which are used by these companies, they should always and continuously consider one case and have perfect ability with regard to it and that's organizational learning. Mr. Deming passed away in 90 but he still supports this concept that the only existing entertainment is learning.

11. Totaling and Conclusion

In this article concept of total quality management was re-investigated so that we can obtain a proper viewpoint in order to improve and promote business processes. The concept of total quality management requires systems integration and techniques which are used in quality.

Based on experiences which have been obtained from total quality management system performance in Japanese companies, we concluded that in order to implement total quality management we need a step by step process.

Both theoretical fields, i.e. personal experiences and results obtained from performed investigations, confirm that in order to implement total quality management we need to 5S systems implementation, reengineering, quality control circle, ISO 9000 and

pure production management which was named as advanced total quality management model.

Moreover in this article it was proved that the concept of advanced total quality management can be performed at all organizational levels and large organizations' senior managers. Consequently this model is suitable for companies which intend to be excellent. Obtained results are more useful for companies which intend to obtain organizations' and pioneer companies' business improvements in the world.

Moreover advanced total quality management model can be used as a system in order to access awards and quality certificates such as EQA. This model is a total mechanism which can be applied in order to create strategic evolutions in organization. By using of this model organizations become targeted to move toward business improvements and permanent and continuous development.

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