The impact of organizational culture on the successful implementation of total quality management

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Abstract

Purpose – The purpose of the paper is to determine the impact of cultural values on the success of TQM implementation in Isfahan University Hospitals (IUHs), Iran, 2004.

Design/methodology/approach – In this paper survey questionnaires were used to elicit responses from hospital managers and employees. Data collected included the characteristics of organizational culture in IUHs and the degree of TQM success and its implementation problems in these hospitals.

Findings – The paper finds that TQM success in IUHs was medium. Implementation of TQM was very low, low, medium and highly successful respectively in 16.7, 16.7, 58.3 and 8.3 percent of hospitals. TQM had the most effect on process management, focus on customers and leadership and management and less effect on focus on suppliers, performance results, strategic planning and focus on material resources. Human resource problems, performance appraisal and strategic problems were the most important obstacles to TQM success respectively. A total of 75 and 25 percent of hospitals had mechanistic and organic structure respectively. In total 41.6 percent of hospitals had weak organizational culture versus 58.4 percent medium culture. The success of TQM in hospitals with organic organizational structure and medium organizational culture was higher than mechanistic and bureaucratic hospitals with weak organizational culture ($p < 0.05$).

Originality/value – The paper shows that TQM requires a quality-oriented organizational culture supported by senior management commitment and involvement, organizational learning and entrepreneurship, team working and collaboration, risk taking, open communication, continuous improvement, customers focus (both internal and external), partnership with suppliers, and monitoring and evaluation of quality. By replicating this study in different countries and contexts the results could be very helpful for developing a model of TQM that can be implemented successfully in a cross-cultural context.

Keywords Organizational culture, Total quality management, Hospitals, Iran

Paper type Research paper

Introduction

Health care organizations are undergoing fundamental changes. The rapid pace of change in the health care systems, changes in science and technology, new incentive structures and technologies, moral attitudes, environmental conditions and influence of rising costs present tremendous challenges for health care managers. Consumers and payers demand high quality services at reasonable and affordable costs. Therefore, the aim of health care organizations should be to improve quality and to build up the confidence of patients, professionals and cost payers in the quality of the context, the

The author gratefully acknowledges the Isfahan University Hospital employees and managers for their assistance in performing this research.
structures, the processes, and the outcomes. Health care managers must find new ways
to provide services to meet these requirements.

Quality management constitutes an appropriate response to this challenge. It is a way
to re-organize work flows in health care organizations as usefully as possible to achieve
an optimum outcome quality, i.e. quality of health care services, patient satisfaction,
employee satisfaction and overall performance results. Total Quality Management
(TQM) is one such philosophy, which aims to provide organizations with a template for
success through customer satisfaction. TQM can be described as the development of an
organizational culture, which is defined by, and supports, the constant attainment of
customer satisfaction through an integrated system of techniques and tools. TQM is a
way of managing to improve the effectiveness, efficiency, flexibility, and
competitiveness of a business as a whole (Ho and Fung, 1994).

Although, theoretically, the use of TQM practices is an important part of
improvements in business performance, in reality a considerable number of
organizations have fallen short in implementing their quality programmes. Cultural
change is essential for the successful implementation of TQM. The relationships
between organizational design and TQM success may indeed be varied in a particular
degree of cultural values. How ever, the linkages among different types of cultures,
cultural strength and TQM success have seldom been examined. Therefore in this
article, the author attempts to investigate the role of organizational culture on TQM
success. The results will help organizations in planning better TQM designs.
Researchers will be able to use this research results for developing quality
management theory and construct a culturally suitable TQM model that can be
implemented easily, effectively, efficiently and successfully. This research provides
useful insight into the organization that uses TQM as an organization development
program.

Literature review

TQM success

TQM is a description of the culture, attitude and organization of a company that aims
to provide its customers with products and services that satisfy their needs. The
culture requires quality in all aspects of the organization’s operations, with things
being done right the first time, and defects and waste eradicated from operations
(Guangming et al., 2000). TQM is the culture of an organization committed to total
customer satisfaction through continuous improvement. In such a culture, resources,
material, equipment and quality management systems are cost effectively
implemented and fully utilized (Gunasekaran, 1999; and Youssef et al., 1996).

TQM has become one of the competitive strategies of choice during the 1990s and
has been widely implemented throughout the world. There is a widespread consensus
that TQM is a way of managing an organization to improve its overall effectiveness to
compete globally (Easton, 1993; Handfield, 1993; Hendricks and Singhal, 1997;
Anderson et al., 1994; Womack et al., 1990; Kanji and Tambi, 1999; Kunst and
Lemmink, 2000; and Quazi et al., 1998). The benefits come in the areas of fewer defects,
reduced rework and lead times, lower inventory levels, cost reduction, enhanced
business competitiveness, increased market share and profit, higher flexibility and
increased employees and customer satisfaction (Gunasekaran, 1999; Youssef et al.,
1996; Lawler et al., 1995; Salegna and Fazel, 2000; and Mosadeghrad, 2003).
TQM failure

However, in practice, these TQM benefits are not easy to achieve. Despite its theoretical promise, recent evidence suggests that attempts to implement it are often unsuccessful (Erickson, 1992; Fuchsberg, 1992; Kendrick, 1993; Boyett et al., 1992; Douglas and Judge, 2001; Caudron, 1993; Charles, 1993; and Korukonda et al., 1999). As a result, the existing literature contains reports of several cases in which the implementation of TQM has failed to achieve improvements in organizational performance. Several researchers reported that TQM implementation has led to improvements in quality, productivity and competitiveness in only within the range of 20 to 35 percent of the firms that have implemented it (Benson, 1993, Schonberger, 1992; and Gatchalian, 1997). This is supported by Hubiak and O’Donnell (1996) when have asserted that approximately two-thirds of companies in USA have either failed or stalled in their attempts to implement TQM. Many of these TQM programmes have been cancelled, or are in the process of being cancelled, as a result of the negative impact on profits. A survey of the success of TQM within Fortune 500 corporations found that respondents only rated their TQM implementation with an effectiveness of about 50 percent (Lackritz, 1997). Burrows (1992) reported a 95 percent failure rate for initiated TQM implementation programs. Eskildson (1994) reported that TQM implementation has uncertain or even negative effects on performance. Latest studies are still reporting that more and more companies are quitting their quality program because of a lack of positive results (Krumwiede et al., 1998). While TQM has been widely applied in the management of change, failure rates at times above 70 per cent give cause for concern.

Many organizations and companies have difficulties in implementing TQM. Failure of the TQM is attributed to lack of consistent senior management commitment and support, leadership style of managers – too top down or too laissez faire, superficial knowledge of the implementers of TQM, lack of a formalized strategic plan for change, vague improvement goals, unclear strategies and conflicting priorities, lack of developing and sustaining a quality oriented culture, lack of employees’ motivation, participation and team working, employee apathy and resistance to change, lack of linkages between remuneration and firm’s performance. There is also a lack of recognition for success, lack of training, education and technical knowledge and experience about TQM, poor coordination, close vertical communication (top down and bottoms up), lack of work discipline. The lack of resources and support, financial crisis, an organizational approach, a long-term focus and failure in understanding the voice of the customer will then affect corporate culture and cause problems in TQM successful implementation (Beer, 2003; Whalen and Rahim, 1994; Huang et al., 1998; Eskildson, 1994, Young, 1992; François et al., 2003; Merron, 1994; Huang et al., 1998; and Mosadeghrad, 2005).

Organizational factors relevant to TQM

Organizational culture consists of the beliefs, values, norms, customs and practices of the organization (Ott, 1989). Schein (1992) defined the concept as a system of norms, shared values, concerns, and common beliefs that are understood and accepted by the members of the organization. The members of the organization accept these as valid, follow them and teach them to incoming members as a pattern to be followed for problem solving and as required thinking style and behavior. Newcomers to an organization may bring with them prior expectations about the culture when they join,
but culture is also transmitted to new arrivals by established staff, sometimes explicitly but more often implicitly. The organizational culture is shaped and articulated not just by individuals but also by new and old organizational features. The organizational structures, routines, command and control expectations, and operational norms all have influence (Langfield-Smith, 1995).

TQM can have a dramatic impact on the culture of an organization (Deming, 1986; Juran, 1989; Hackman and Wageman, 1995; Lawler et al., 1998; and Flood, 1993). TQM is a management approach in which the application of practices such as teamwork, internal customer relationship, and supplier partnership are tools for cultural transformation, and involves a major cultural change in the organization (Entrekin and Pearson, 1995). TQM is a complete change in an organization’s culture and the way people behave at work. On the other hand, organizational culture appears to be a crucial factor in understanding the ability of any organization to perform and compete (Peters and Waterman, 1982; Cicmil and Kekkälä, 1997; and Deal and Kennedy, 1982) and some work in health care confirms this (Gerowitz et al., 1996, 1998). This is especially an issue in health care institutions such as hospitals where individual health care services provided by a group of providers such as doctors, nurses and clinicians with different cultural values. Interaction between internal and external customers of health care organizations is vital for providing quality services.

Organizational culture is a major variance-causing factor in TQM implementation programs that inhibits or allows the success of such a program. A number of studies have highlighted that cultural variables drive TQM success (Kujala and Lillrank, 2004; De Cock, 1998; Galperin, 1995; Katz et al., 1998; Nasierowski and Coleman, 1997; Tata and Prasad, 1998; Dean and Bowen, 1994; Hackman and Wageman, 1995; Powell, 1995; Sahney and Warden, 1991; and Metri, 2005). TQM programs are more likely to succeed if the prevailing organizational culture is compatible with the values and basic assumptions proposed by the TQM discipline (Kujala and Lillrank, 2004). The success of TQM as an organizational change will depend a lot on the organizational culture. Successful implementation of TQM requires a significant change in values, attitudes and culture of the organization. Many organizations place great attempts by shaping their cultures as a means of improving organizational fitness (Dee and Kennedy, 1999). The conceptual schema of this study is presented in Figure 1 indicating the relationships among cultural values and TQM principles.

Organizational culture can change the performance of organizations because of its capacity to solve the basic problems of:

- Organizational survival in and adaptation to the external environment.
- Integration of internal processes to insure the capacity to continue to survive and adapt (Schein, 1992, p. 50).

The importance of the organization as a lever of change to improve quality lies in the organization’s ability to provide an overall climate and culture for change through its various decision-making systems, operating systems, and human resource practices. Members of an organization are more reluctant to accept a new approach if it is in conflict with the culture of the organization. An underlying requirement for TQM interventions to take root is a fundamental transformation of the organization’s culture (Schein, 1997). This includes the transformation of the organization’s culture, processes, and beliefs, among employees.
**Methodology**

*Purpose and objectives*

The purpose of this descriptive and cross-sectional study was to investigate the relationship between organizational culture and TQM success and its implementation barriers in twelve Isfahan university hospitals (IUHs), Iran, 2004. Overall, this study explores the effects of cultural values on the TQM success.

*Instruments*

Two questionnaires were used for data collection. The questionnaire packages contained a cover letter that briefly explained the purpose of the study and the mechanisms to maintain confidentiality. Further explanations were given when requested.

*TQM success and its implementation barriers questionnaire*

This self-administrated questionnaire consisted of three parts. Part I of the questionnaire consisted of 15 general demographic questions. Part II and III of questionnaire assessed the level of TQM effects on hospitals performance and its implementation barriers. The study began with the development of the questionnaire to measure TQM success and its implementation barriers in hospitals. First, the domains of TQM principles and its implementation barriers were defined by means of literature review and a Delphi Technique. In total, eight most common principles of TQM (leadership and management, strategic planning, focus on customer, focus on employees, focus on suppliers, focus on material resources, process management and performance results) and five domains of TQM implementation barriers (human resource, performance appraisal, strategic, structural and process barriers) were chosen for inclusion in the questionnaire. A total of 52 and 30 items were retained in the final version of the questionnaire respectively to measure TQM success and its
implementation barriers. A six-point response scale was used for these items, where 5 = very high, 4 = high, 3 = medium, 2 = low, 1 = very low and 0 = no effect.

Organizational culture questionnaire
A self-administered questionnaire was used to assess the characteristics of different dimensions of organizational culture of IUHs. Part I of the questionnaire consisted of 12 demographic variables. Part II of the questionnaire provided the basis for describing employee’s perceptions of the following eight domains of their hospital Organizational culture: entrepreneurship, risk taking, uncertainty avoidance (stability), power distance, attention to details, individualism versus collectivism, masculinity versus femininity and mechanistic versus organic structure. The items of this questionnaire were gathered again by means of a Delphi Technique and literature review. A total of 50 items were retained in the final version of the questionnaire. It was decided to use five-point Likert scales to measure the responses to each item (from 5 = very high to 1 = very low).

Definition of cultural values
• Entrepreneurship: the management skills or the personal initiative used to combine resources in productive ways. It involves taking risks involved in starting and managing a business.
• Risk taking: the willingness to make mistakes, advocate unconventional or unpopular positions, or tackle extremely challenging problems without obvious solutions, such that one’s personal growth, integrity, or accomplishments are enhanced.
• Uncertainty avoidance: the extent to which people are comfortable or uncomfortable with uncertainty and little structure.
• Power distance: The degree of inequality in power distribution between a less powerful individual (I) and a more powerful other (O), in which I and O belong to the same social system.
• Individualism or collectivism: the extent to which individuals are supposed to be self-reliant and look after themselves, versus being more integrated into a group.
• Masculinity or femininity: this dimension reflects hardness vs softness; toughness vs tenderness in a culture.
• Mechanistic versus organic structure: mechanistic and bureaucratic cultures have an internal emphasis, a short-term orientation and the strategic emphasis is on permanence and stability. While mechanistic systems focus on rigid division and allocation of tasks, organic systems focus on the overall task, allowing variations in the organization of sub-tasks.

Validity estimates
Content and face validity, were established by a panel of experts, consisting of organizational behavior, and management experts. The panel was asked to review the content of the items in the instruments and determine if the items were within the linguistic capabilities and understanding of hospital employees and managers in Iran. The panel was also asked to eliminate items or questions they found to be irrelevant to the Iranian cultural and make suggestions on how to simplify the items that were not relevant. After
some modifications were made, the instruments were resubmitted to the experts. The experts unanimously recommended the use of the modified instrument for this study.

**Reliability estimates**
Cronbach’s alpha was used to assess instruments reliability. The initial questionnaires were administered to a small sample of 40 hospital employees and managers. An alpha value of 0.70 or higher was considered as acceptable reliability for group. The reliability coefficient was 0.87, 0.92 and 0.88 for the TQM success, its implementation barriers and organizational culture survey questionnaires respectively.

**Data collection**
At the time of the study (2004), these hospitals employed 6,405 full time employees. From these employees, 762 persons were selected for this research after a pilot study. Employees who had less than six months working experience were excluded from this study. TQM success and its implementation barriers questionnaire distributed to the 12 hospital managers. For organizational culture survey, questionnaires distributed to 750 hospital employees. The sampling method was stratified random sampling. From those distributed questionnaires, 684 questionnaires were returned and from those, 679 questionnaires were completely filled in (90.26 percent).

**Analysis of data**
All data were analyzed using the Statistical Package for the Social Sciences (SPSS 11). Appropriate statistical procedures for description and inference were used. The missing values were checked prior to further statistical analysis. Because each domain consisted of a different number of items, a normalization procedure was applied. In order to normalize the Likert scale on 0-5 scales for each domain, the sum of raw scores of items in each domain divided to the number of items in those domains and for overall TQM success and its implementation barriers, sum of raw scores of items divided to 52 and 30 respectively.

The differences between groups were tested with the chi-square, Mann-Whitney and Kruskal Wallis tests. The correlation coefficients were calculated to evaluate the relationship between variables. Forward conditional logistic regression analysis was used to identify the most important predictor domains in overall TQM success and its implementation barriers. Data were presented as the mean ± standard deviation (SD) and percentage. p values less than 0.05 were considered as significant.

**Results**
In this survey the results are:

- A total of 667 employees and 12 hospital managers took part in this survey. From those respondents, 45.6 and 91.7 percent of employees and hospital managers were male respectively. Participative management was the dominant leadership style of managers in hospitals. Most of hospital managers used Participative management and business process reengineering techniques in their organizations. In total 100 per cent of hospital managers took part in TQM, 50 per cent in productivity management, 41.7 per cent in Management Information System and 66.7 per cent in human resource management educational programs.
The mean score of TQM success in hospitals was 3.47 (medium) from five credits. Implementation of TQM was very low, low, medium and high successful respectively in 16.7, 16.7, 58.3 and 8.3 percent of hospitals. TQM had the most effect on process management, focus on customers and leadership and management and less effect on focus on suppliers, performance results, strategic planning and focus on material resources (Table I).

In correlation analysis between success of TQM and TQM principles, focus on employees, 0.970; performance results, 0.965; process management, 0.942; focus on customer, 0.937; strategic planning, 0.928 and leadership and management, 0.924 had positive and most effect respectively, and focus on material resources, 0.856 and focus on suppliers, 0.871 had less effect. This relationship was statistically significant in all of cases ($p < 0.001$).

The impact of TQM on hospitals was measured on a five-point scale, where 5 stood for highly successful and 0 for no effect. TQM leads to improvements in some area such as customer satisfaction measurement (4.21), senior management commitment to developing a quality management system (4.11), senior management involvement and commitment to quality (4.05), developing an environment for people participation (4.05), employees recognition and motivation (4.00), customer relationship management (4.00), customer compliant investigation system (3.94), improving the relationship between employees and organization (3.89), self assessment (3.88), employees empowerment (3.88), social responsibility (3.86), organizational and individual innovation and entrepreneurship (3.77), continuous improvement (3.77), human resource management (3.74), education and training (3.68), determining personnel performance criteria and its measurement (3.63), systematic approach (3.53), developing quality culture (3.21), financial management (3.15), process deviation evaluation and control (3.11) and determining criteria for assessing suppliers (3.16).

As it mentioned in Table II, Using QMS, AWG, QC, BPR and QFD techniques had a synergic effect in the success of TQM. Using a package of these techniques had more positive impact on TQM success, for example by using the first seven techniques; the mean score of TQM success and implementation problems were 3.84 and 2.63 respectively.

The mean score of TQM implementation barriers and problems in IUHs was 3.14 (medium) on a five-scale. Implementation problems of TQM was very low, low, medium, high and very high respectively in 11.1, 22.2, 27.8, 33.3 and 5.6 percent of
hospitals. Human resource problems, performance appraisal and Strategic problems were the most important obstacles of TQM success respectively (Table III).

The barriers to successful implementation TQM in this survey included insufficient wages and salaries, (4.42), cultural barriers (3.84), lack of education and training (3.69), lack of efficient and effective employees for TQM implementation (3.63), lack of mechanisms for empowering employees (3.53), instability and mobility of senior managers (3.49), lack of automation of process inspection and control (3.47), lack of legal forces for providing quality of health care (3.45), lack of long term and strategic planning (3.37), non clarity of strategies and objectives (3.32), lack of physician involvement (3.30), and lack of patients knowledge about health care processes (3.21).

In correlation analysis between barriers of TQM implementation and its problems dimensions, strategic problems \( (r = 0.958) \), performance appraisal problems \( (r = 0.955) \) and structural problems \( (r = 0.944) \) had positive and most effect, and process problems \( (r = 0.877) \) and human resource problems \( (r = 0.912) \), had less effect respectively. This relationship was statistically significant in all of cases \( (p = 0.00) \).

The mean score of TQM success in hospitals which is their top managers were committed and involved strongly to quality management was higher than other organizations with lower top management commitment and involvement. Also, those hospitals reported lower implementation problems. The differences between values were statistically significant \( (p < 0.05) \).

The correlation coefficient between TQM success and its implementation barriers showed that the most negative co-efficiency was between focus on customers and strategic problems \( (p = 0.006 \text{ and } r = -0.385) \), structural problems \( (p = 0.01 \text{ and } r = -0.325) \) and human resource problems \( (p = 0.04 \text{ and } r = -0.286) \).

<table>
<thead>
<tr>
<th>Techniques</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality management systems (e.g. ISO 90001)</td>
<td>3.74</td>
<td>0.42</td>
</tr>
<tr>
<td>Autonomous work groups</td>
<td>3.69</td>
<td>0.61</td>
</tr>
<tr>
<td>Quality circles</td>
<td>3.62</td>
<td>0.58</td>
</tr>
<tr>
<td>Business process reengineering</td>
<td>3.58</td>
<td>0.54</td>
</tr>
<tr>
<td>Quality function deployment</td>
<td>3.54</td>
<td>0.46</td>
</tr>
<tr>
<td>Five S</td>
<td>3.51</td>
<td>0.54</td>
</tr>
<tr>
<td>Employees suggestion scheme</td>
<td>3.49</td>
<td>0.48</td>
</tr>
<tr>
<td>Total productive maintenance</td>
<td>3.46</td>
<td>0.44</td>
</tr>
<tr>
<td>Marketing, production and purchasing control</td>
<td>3.43</td>
<td>0.46</td>
</tr>
<tr>
<td>Just in time system</td>
<td>3.39</td>
<td>0.46</td>
</tr>
</tbody>
</table>

**Table II.** The mean score of TQM success according to implementing managerial techniques

<table>
<thead>
<tr>
<th>TQM barriers</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human resource problems</td>
<td>3.58</td>
<td>0.79</td>
</tr>
<tr>
<td>Performance appraisal</td>
<td>3.14</td>
<td>0.92</td>
</tr>
<tr>
<td>Strategic problems</td>
<td>3.05</td>
<td>0.96</td>
</tr>
<tr>
<td>Structural problems</td>
<td>2.94</td>
<td>0.83</td>
</tr>
<tr>
<td>Process problems</td>
<td>2.81</td>
<td>0.92</td>
</tr>
<tr>
<td>Total</td>
<td>3.14</td>
<td>0.81</td>
</tr>
</tbody>
</table>

**Table III.** The mean score of TQM implementation problems in IUHs
The level of Creativity, Collectivism and Stability dimensions of organizational culture in IUHs were low. Also, the level of risk taking, power distance and Attention to details were medium in these hospitals. Entrepreneurship (creativity) in 11 hospitals was low and in one hospital was medium. Collectivism in seven hospitals was low and in five hospitals was medium. Risk taking in six hospitals was low and in six hospitals was medium. Power distance in 11 hospitals was medium and in one hospital was low. Attention to details in 11 hospitals was medium and in one hospital was high. A total of seven hospitals had femininity culture versus five hospitals masculinity. Nine hospitals had Mechanistic and Bureaucratic structure versus three hospitals organic structure. Five hospitals had weak organizational culture versus seven hospitals medium culture. No hospitals had strong organizational culture (see Table IV).

There was statistically significant correlation between TQM success and stability, risk taking, pay attention to details, entrepreneurship and collectivism (Table V).

The success of TQM in organic hospitals with medium organizational culture was higher than mechanistic and bureaucratic hospitals with weak organizational culture. Implementation of TQM in hospitals with higher Entrepreneurship and Risk taking was more successful than other hospitals with lower Entrepreneurship and Risk taking. Also, TQM was more successful in collectivism hospitals rather than individualism hospitals. The differences between values were statistically significant in all of these cases ($p < 0.05$). There was no statistically significant correlation between TQM success and femininity/masculinity dimension of organizational culture ($p > 0.05$).

The results of the simultaneous multiple regression-model indicate that together, the cultural values explain 50.7 percent of the variance in TQM success. Stability explained the largest amount of the variance, followed by risk taking, attention to details and creativity. Also, cultural values explain 48 percent of the variance in TQM implementation problems. Power distance explained the largest amount of the variance, followed by mechanistic structure, bureaucracy and individualism.

**Discussion**

The aim of this study was to increase our understanding of the effects of the organization’s culture on the implementation and success of TQM. The results of this research have shown that TQM had the most effects on process management, focus on customers and leadership and management. On the other hand, Human resource problems, performance appraisal and Strategic problems were the most important obstacles of TQM success respectively. Areas of problems are signals for change.

A successful TQM implementation needs long-term strategic planning. Quality gurus and writers strongly emphasize the importance of strategic planning process.
Table V.
inter-correlations between organizational culture values

<table>
<thead>
<tr>
<th></th>
<th>TQM barriers</th>
<th>TQM success</th>
<th>Creativity</th>
<th>Risk taking</th>
<th>Stability</th>
<th>Individualism/collectivism</th>
<th>Power distance</th>
<th>Organic/mechanistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>TQM barriers</td>
<td>-0.212**</td>
<td>-0.228*</td>
<td>-0.724**</td>
<td>-0.724**</td>
<td>-0.723**</td>
<td>-0.697**</td>
<td>-0.753**</td>
<td>-0.697*</td>
</tr>
<tr>
<td>Femininity/masculinity</td>
<td>0.774**</td>
<td>0.572*</td>
<td>0.744**</td>
<td>0.374</td>
<td>-0.537**</td>
<td>0.737**</td>
<td>0.557**</td>
<td>0.574*</td>
</tr>
<tr>
<td>Attention to details</td>
<td>0.794*</td>
<td>-0.374</td>
<td>0.413</td>
<td>0.833**</td>
<td>0.797**</td>
<td>0.697**</td>
<td>-0.697*</td>
<td>0.247*</td>
</tr>
<tr>
<td>Creativity</td>
<td>-0.812**</td>
<td>-0.228*</td>
<td>-0.724**</td>
<td>-0.724**</td>
<td>-0.723**</td>
<td>-0.697**</td>
<td>-0.753**</td>
<td>-0.697*</td>
</tr>
<tr>
<td>Risk taking</td>
<td>-0.782**</td>
<td>-0.212**</td>
<td>-0.723**</td>
<td>-0.689**</td>
<td>-0.724**</td>
<td>-0.697**</td>
<td>-0.753**</td>
<td>-0.697*</td>
</tr>
<tr>
<td>Stability</td>
<td>-0.774**</td>
<td>-0.228*</td>
<td>-0.724**</td>
<td>-0.724**</td>
<td>-0.723**</td>
<td>-0.697**</td>
<td>-0.753**</td>
<td>-0.697*</td>
</tr>
<tr>
<td>Individualism/collectivism</td>
<td>0.358**</td>
<td>0.135*</td>
<td>0.235</td>
<td>0.303</td>
<td>0.574*</td>
<td>0.743**</td>
<td>0.273*</td>
<td>0.574*</td>
</tr>
<tr>
<td>Power distance</td>
<td>-0.585**</td>
<td>-0.212**</td>
<td>-0.724**</td>
<td>-0.724**</td>
<td>-0.723**</td>
<td>-0.697**</td>
<td>-0.753**</td>
<td>-0.697*</td>
</tr>
<tr>
<td>Organic/mechanistic</td>
<td>0.585*</td>
<td>-0.228*</td>
<td>-0.724**</td>
<td>-0.724**</td>
<td>-0.723**</td>
<td>-0.697**</td>
<td>-0.753**</td>
<td>-0.697*</td>
</tr>
</tbody>
</table>

Notes: *Correlation is significant at the 0.05 level; **Correlation is significant at the 0.01 level
based on total quality (Deming, 1986; Oakland, 1993; James, 1996; Ahire et al., 1996; Sinclair and Zairi, 2001; Zairi, 1994; Dayton, 2001; Martínez-Lorente et al., 1998; Sureshchandar et al., 2001; Crepin, 2002; Hitchcock and Willard, 2002). Strategic problems were important barriers of TQM success in this survey. These barriers included lack of planning and long-term policies, lack of mechanisms for strategy formulating, non-clarity of objectives, inflexibility of organization toward environment and technologies change and lack of legal elements for providing quality services.

Involvement and commitment of managers at different levels are vital for implementing TQM (Deming, 1986; Juran, 1986, 1989; Crosby, 1992; Feigenbaum, 1993; Ishikawa, 1985). It is also highlighted as a critical factor by several empirical studies (Ramirez and Loney, 1993; Zairi and Youssef, 1995; Ahire et al., 1996; Dayton, 2001; Saraph et al., 1989; Flyn et al., 1994; Thiagarajan and Zairi, 1997; Rao et al., 1999; Zhang et al., 2000; Pun, 2001; Lau and Idris, 2001; and Li et al., 2001). The finding, which indicated that there was a significant association between TQM success and senior management commitment and involvement, is consistent with the findings of these previous studies.

Some studies showed that it is important for top management take a leadership role and show a strong commitment at the time of implementing TQM (Lee et al., 1997; Rivers and Bae, 1999; Cummings and Worley, 2001; and Powell, 1995). Leadership style of managers is important factor in TQM success. In this study using participative management techniques such as quality circles and autonomous work groups had more synergistic effects on TQM success. Participative management style empowers employees to take any necessary action to ensure customer satisfaction.

Numerous studies carried out have shown that human resources problems are important barriers in implementing successful TQM (Young, 1992; François et al., 2003; Merron, 1994; Huang et al., 1998; and Mosadeghrad, 2005). In this study, Human resources problems were the most important obstacles to successful TQM implementation and included lack of effective and efficient employees for implementation of TQM, Non clarity of employees’ responsibilities and authorities, Lack of mechanisms for empowering of employees, lack of non monetary motivation mechanisms for developing employees’ participation in TQM activities and low salaries and benefits.

Furthermore, Employee involvement and commitment to the goals of the TQM process are critical in TQM success (Shetty, 1993; Lawler et al., 1995; Buch and Rivers, 2002; McAdam and Kelly, 2002). Participation is important for implementing TQM. The most common vehicle for employee participation is a team. Teamwork and team spirit among employees is a vital element for TQM (Crosby, 1989; Kanji and Asher, 1993; Cebeci and Beskese, 2002; McAdam and Kelly, 2002; Everett, 2002; Mehra et al., 1998; and Mosadeghrad, 2005). To achieve quality, all parties, including the patients, employees, managers, consultants, contractors, entrepreneurs, suppliers, and the governing bodies need to collaborate and commit to achieving quality. The influence of outside professional bodies, specialist societies and patient interest groups may cut across and sometimes work against efforts at internal reform. Identifying areas of consensus and consistency in the values espoused by these organizations and attempting limited cultural shifts in these areas may therefore be advantageous (Davies et al., 2000).

This research showed that the success of TQM in organic hospitals with stronger organizational culture was higher than Mechanistic and bureaucratic with weak organizational culture. It seems that pay more attention to details leads to more stability in hospitals. In a stable organization, employees will have more collaboration,
creativity and risk taking activities. All of these will produce an organic culture, which is helpful for TQM success. This study also demonstrates that those hospitals with high power distance are more likely to have centralized control over decision-making that leads to failure in TQM implementation. The finding is consistent with the findings of Tata and Prasad (1998). Conversely, Katz et al. (1998) argued that companies in countries with a high score on power distance are more likely to succeed in adopting TQM because their employees are willing to listen to the suggestions of managers. It seems, besides cultural values, the factors such as organizational structure and management practices have been overlooked in those studies.

To improve quality of health care services, change in the culture is required. Cultural change is the most effective way to manage TQM within an organization. TQM requires a transformation in organizational culture, processes, and beliefs. Cultural change can be used to bring about changes in systems, implement corrective and preventive actions or influence management for business improvement. Cultural change cannot easily be wrought from the top down by simple exhortation. Successful strategies need to take into account the needs, expectations, and motivations of employees at all levels (Beer, 2003). Furthermore, any attempt to influence key cultural dimensions needs to be part of a much wider assemblage of mutually reinforcing improvement activities (Williams et al., 1996).

TQM success is achieved through a shift from traditional approaches to the new TQM paradigm (Bounds et al., 1994; Glover, 1993). A transformation of culture will enable the instillation of new values, beliefs and assumptions to underpin new ways of working. TQM programs to be succeed a collaborative culture characterized by honesty, trust, and openness and a culture that is conducive to creativity and empowers individuals and nurtures their capacity in order to increase their responsibility in carrying out the mission of an organization should be developed. Decentralization and participation in management should be considered in this quality culture. Decentralization will improve employees’ involvement, communication and participation in decision-making and will reduce power distance within organization.

In all organizations, there are processes by which things get done. TQM can improve organizational performance through improving the processes. In TQM the emphasis is on studying these processes and on executing them more and more effectively to provide customers with products and services of ever increasing value at ever lower costs. The most important process barriers in IUHs included fault in process formulation according to organization mission and functions, disintegration between process in different departments of organization, overlapping of activities in the processes, non-clarity of customer and provider in processes and unnecessary complexity of processes. Determining the initial, critical and important processes in hospitals, standardization and developing effective and efficient health care procedures according to accepted standards, clarifying the policies and strategies, and introducing systematic approach to hospitals’ structure are important for consideration in process management and will be helpful for success of TQM.

The efforts, which are put in implementing TQM, should be assessed. There is a need to know the strong and weak parts of implementation quality plans. Implementing an effective and efficient system of quality management, self-assessment, continuous monitoring and evaluation of quality activities by employees and providing good feedbacks are the most important factors in success of TQM. In this survey, the
performance appraisal problems were as follow: lack of mechanisms for measuring hospital’s activities, lack of continuous quality control, and lack of feedback from customers because of their low information about hospital services.

Many different strategies, tactics, techniques, tools and methods are used under the concept of TQM. Using business process reengineering, participative management, quality management systems, total productive maintenance, quality function deployment, five S, benchmarking and supporting information technology play an important role in enhancing the success of TQM. The results have shown that in hospitals using participative management, TQM had better effects on overall performance. The use of an employee’s suggestion scheme did not lead to good results though quality circles and autonomous work groups had more synergistic effects. It seems that hospital managers do not use this technique appropriately and systematically, so employees are not interested in this participative management technique. Therefore, they prefer to do quality efforts together in the quality groups. Managers should give them more autonomy to do their own works.

Conclusions and recommendations

In conclusion this study provides information about the success of TQM and barriers to its successful implementation and its relationship with organizational culture in Isfahan University Hospitals, Iran. Several critical factors are essential if TQM is to be successfully implemented. These include the support and commitment of top management, effective and strong leadership, organizing for quality, strategic quality planning (long term objectives and policy development and effective deployment of goals), communication of mission statement, maximizing employees’ understanding of the vision, values and quality goals of the organization, training and education, effective human resources management, employees empowerment, employees commitment and voluntary participation.

The following factors lead to increases in productivity and employees and customers’ satisfaction. These are: cross-functional teams, team working and collaboration, ownership, providing authority equal to responsibility, job security, compensation based on equality, recognition for employees contributions to quality, climate of fairness, effective communication, good financial management, customer-driven quality, partnership with suppliers, continuous improvement, standardization of procedures, management by fact to solve problems, aligning process to improve customer satisfaction, application of best practice, measurement tools, use of information for improvement, and a TQM culture.

Organizational culture has a significant effect on the successful TQM implementation. For TQM programs to be succeed, a collaborative and corporate organizational culture supported by long-term management and employees commitment and involvement, organizational learning, innovation and entrepreneurship, team working and collaboration, open communication, risk taking, continuous improvement, customers focus (internal and external), partnership with suppliers, and monitoring and evaluation of quality should be developed. For TQM to be successful, an effective quality organization must be established to be channels for communication, the bureaucratic system must be transformed, a strategic plan must be established to be guidelines for execution, strategies and processes must be aligned and integrated within a quality culture, and the information system must be integrated.
Implications

TQM fundamentally requires a new culture. Best TQM results can be achieved when an open, collaborative and cooperative culture is created by management and supported by organizational learning, teamwork, and customer focus (internal/external). To achieve success in TQM, senior managers need to ensure that all facets of the organization, the organizational structure, management style, training, communications, compensation and promotion systems, and systems, procedures, and processes reflect TQM values and principles.

Prevailing organizational culture should be compatible with the values and basic principles of TQM approach if significant progress in quality improvement is to be made. Therefore, Managers may choose a TQM approach that fits the existing organizational culture, or may try to change the existing culture. Managers for changing organizational culture have to change their management style, from an authoritative to a participative management style to achieve continuous improvement through their employees. They need to encourage and empower their employees to contribute fully to the organization’s continuous improvement programs. Training is a very important tool for promoting and developing skills related to an organization’s beliefs and values to change to a culture that places high value on quality. Furthermore, an emphasis on continuous learning and improvement, induces a positive culture where there is sufficient behavioral modification to warrant a sustainable TQM climate. Managers should be able to create an innovation culture and devise suitable policies to encourage innovation positively within their organizations. They should place special emphasis on innovation and learning and an infrastructure that helps build and preserve an organizational climate which is conducive to continuous improvement and which is sustainable.

Limitations

Although this study conducted in Iran, it is anticipated that the findings may well have relevance on a broader scale. This study may serve as a foundation for future studies in different countries. So, it is recommended that this study be repeated in different countries and contexts. The results of such studies can be very helpful for developing a model of TQM that can be implemented easily and successfully in a cross-cultural context.

References


Deal, T.E. and Kennedy, A.A. (1982), Corporate Cultures, Addison-Wesley, Reading, MA.


Further reading


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