

An Empirical Study of Barriers in Implementing Total Quality Management in Service Organizations in Pakistan

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Abstract: The purpose of this study is to investigate empirically the barriers of total quality management implementation experienced by service organizations in Pakistan. Structured questionnaire was used to collect the data from a sample of 120 managers. The results identified lack of planning, lack of efficient human resources practices, inadequate infrastructure for total quality management, lack of support from leadership and lack of customer focus as significant barriers to implementing this initiative. The results provided an opportunity to quality managers, human resources practitioners and professionals to pursue appropriate intervention strategies to offset the effects of these barriers.

Key words: Total quality management % Barriers % Services % Pakistan

INTRODUCTION

The changing nature of business has necessitated adoption of unique approaches for organizations to survive in a competitive environment. Total quality management (TQM) is a strategy that facilitates organizations to achieve and sustain competitive advantage. This philosophy provides holistic approach to seek continuous improvement in all dimensions. Rahman *et al.*, (2011, p. 169) described it as a, “people-focused, customer-driven, measurement-driven management philosophy using structures and well-organized operation methodology.” [1]. Despite the fact that pursuing this philosophy yields positive dividends, the results of its implementation are mixed. There is a need to offer useful insight into the barriers that impede effective implementation of TQM. Such insight will offer opportunities to policy makers to understand the dynamics of its implementation, identify barriers that affect the success of these initiatives and take appropriate intervention strategy to achieve desirable transformation to accomplish superior performance.

Globalization has offered opportunities to Pakistani organizations to move into emerging markets and enhance market share in existing markets. The use of total quality management (TQM) as an organizational strategy facilitates firms in achieving these goals.

The implementation of TQM significantly improves quality of products, services and processes, increases satisfaction of employees and external customers and leads to organizational performance in financial and nonfinancial dimensions. In Pakistan, visionary organizations have pursued quality initiative in different forms. However, the published literature of implementation of TQM is limited. Khan (2010) and Hummayoun, *et al.*, (2008) examined empirically the implementation of TQM in services in Pakistan [2, 3]; whereas Awan *et al.*, (2008) studied implementation of TQM in manufacturing industries [4].

The purpose of this study is to investigate empirically the barriers experienced in implementation of TQM initiatives in service organizations in Pakistan. This study provides insight to the difficulties experienced in implementing TQM. Such knowledge offers opportunities to organizational decision makers and human resources practitioners to plan appropriate intervention strategy to offset these barriers to achieve a high success rate of TQM implementation. The results of such insights and compatible response strategy are likely to enhance the success rates of TQM initiatives in Pakistan. The study also provides opportunities to academicians to explore the dynamics of these barriers to further extend the knowledge in the area of TQM implementation in services in developing economies.

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Literature Review: Despite concerted efforts by organizations to use TQM as a strategy and achieve the desired results, a large number of such initiatives have not met the desired success. Researchers agree that TQM philosophy and fundamental are sound; however, the rate of failure of TQM initiatives has offered new insight to researchers to identify the possible barriers related with this phenomenon. Quality experts and researchers identified the specific barriers that impede implementation of TQM [5, 6]. Kuei *et al.*, (1997) found firm's culture; Mann and Kehoe, (1995) established management style; Fok *et al.*, (2000) stated employees' related factors as significant barriers [7-9].

Glover (1993, p.50) attributed TQM failure to "conceptual weakness (failure occurring because organizations make only "superficial" attempts at change); design flaws (occur when total quality management system are not designed to fit the cultural circumstances of the organization) and ineffective implementation results when TQM initiatives becomes extra work instead of a new way of doing things." [10].

Kanji (1996) argued that "management failure to lead is the primary obstacle to successful TQM implementation. Based on several case studies he compiled a list of 12 poor management practices that contributed toward failed TQM initiatives. The results of these studies found that management style which inhibits a learning culture and creates barriers between departments was the most significant barriers" (as cited in Sebastianelli and Tamimi, 2003, p. 48) [11].

Matta *et al.*, (1996) found that lack of cultural change, failure to involve employees and absence of partnership with customers and suppliers are the major obstacles to TQM implementation [12]. Kotter (1995) stated that lack of vision, inadequate coalition with partners, poor communication, lack of institutionalizing quality and short-term approach hinder successful implementation of TQM [13]. Ngai and Cheng (1997) attributed barriers related to employees, culture, infrastructure, managerial orientation and focus and internal harmony, communication in the organizations [6]. Newall and Dale (1990) identified inadequate strategic planning and obsolete culture as major obstacles [14]. Inadequate training and education affects successful TQM implementation. Studies found that lack of visible participation and commitment of management, fear of change, inadequate customer focus, absence of employees' involvement and empowerment, education of people and failure to institutionalize quality within organizations negatively affects TQM initiatives [15,16,17].

In United States, Sebastianelli and Tamimi (2003) carried out survey based on sample of quality managers and established that the obstacles related to TQM transformation is attributed to weak leadership, poor planning, inadequate human resources management, lack of customer focus and insufficient infrastructure for quality [11]. In a study of 364 organizations in Indonesia, Zain and Amar (2002) established that issues associated with organizational culture, management attitude toward quality, human resources management, inter-functional relationship, information, processes and equipment result in ineffective implementation of TQM [18]. Rad (2006) studied the implementation of TQM in Iran. He established that poor management control, lack of will to change culture, poor organizational response to environmental changes, lack of teamwork and inadequate response to internal and external customers' needs are the major barriers to TQM successful implementation [19]. In Mexico, Jun *et al.* (2004, p. 59) examined potential barriers in 43 organizations in Maquiladora industry [20]. The study noted a high employees' turnover as major barrier. The study also found that obstacles to TQM implementation that were common to both Maquiladora and United States firms included lack of employees' training, failure to tie management's compensation to achieving quality goals and employees' resistance to change. Bhatt and Rajshekhar (2009), in a study in India, found resistance to change and absence of benchmarking of best practices as the most important barriers [21]. In a study of 1000 quality managers in 175 British and 127 Australian firms, Burcher *et al.*, (2010) found that inadequate communication, commitment, organizational inertia and insufficient resources were the major barriers to implementation of TQM [22]. Al-Zamny *et al.*, (2002), in a study in Yemen, found culture, inadequate support for quality initiatives and lack of managerial competency as major barriers [23]. The study in Qatar by Khalifa and Aspinwall (2000) identified that an authoritarian and hierarchical organizational structure, lack of managerial commitment, resistance from employees and managers, inadequate managerial competencies, insufficient infrastructure and nonsupportive human resources management practices were significant barriers [24]. In Libyan manufacturing industries, Master (1996) identified lack of cultural change, ineffective management, inadequate involvement and insufficient resources as important barriers [25]. In Malaysia, Shaari (2010) found lack of managerial commitment, cost of implementation, short-term focus and lack of understanding about the concept, as the major barriers in TQM implementation [26].

Researchers validated that implementation failure of TQM is associated with lack of consistent support by leadership, inadequate strategic planning, absence of quality-oriented culture, lack of customer focus, commitment of employees, inadequate human resources management practices, restricted communication and provision of insufficient resources to support the quality initiatives [19, 22, 25-28].

Comprehensive review of literature identified five major barriers to successful implementation of TQM initiatives. These barriers have been used in the study. These include lack of leadership support, lack of planning for quality, lack of customer focus, inadequate HRM practices and provision of insufficient infrastructure to support TQM initiatives.

Methodology: Ten service organizations, five each from telecommunication and financial institutions, had been selected that had the requisite experience of implementing TQM [2,3]. Using convenience sampling technique, a sample of 150 managers and executives was selected for the study. A self-administered questionnaire was used to collect the data. The instrument of the study was adapted from Tamimi and Sebastianelli (1998) [29]. The questionnaire contained 21 items that identified barriers that organization faced in implementing TQM. These barriers included lack of customer focus,

lack of strategic planning, lack of commitment and support of top management, lack of employees' involvement and lack of adequate resources for TQM. A five point Likert scale was used to measure the response with five (strongly agree) and one (strongly disagree).

In order to test the reliability of the instrument, the Cronbach's alpha for the instrument and for each variable was measured. The results indicated Cronbach's alpha values of lack of customer focus (0.76), lack of planning (0.81), lack of commitment and support of top management (0.79), lack of employees' involvement and empowerment (0.80) and lack of adequate resources for TQM (0.77). The face validity and content validity of the instrument was established. The construct validity was undertaken through factor analysis. The Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity for each factor was measured. Factor loading with value less than 0.50 was not taken into analysis. Factors having Eigen value greater than one were retained.

RESULTS

One hundred thirty completed questionnaires were received. During scrutiny, 10 questionnaires had inadequate information and were discarded. One hundred twenty questionnaires were used for data analysis indicating a response rate of 80%.

Table 1: Descriptive Analysis

Item	Questionnaire Items	Rank	Pakistani Firms		Indian Firms Number	
			Mean	SD	Mean	Rank
1	Employees are resistant to change.	1	2.48	0.83	2.92	2
5	Employees are not trained in quality improvement skills.	2	2.38	0.85	2.68	6
3	Employees are not empowered to implement quality improvement.	3	2.20	0.92	2.30	19
4	Time constraints prohibit effective TQM implementation.	4	2.09	0.78	2.58	9
2	There are inadequate resources to employ TQM	5	2.05	0.83	2.82	3
6	Employees are not trained in problem identification and problem solving skills	6	2.01	0.76	2.31	5
9	There is no joint planning with suppliers.	7	1.98	0.79	2.48	13
19	Quality is not effectively measured.	8	1.89	0.83	2.80	4
20	Quality is not defined by customer.	9	1.82	1.02	2.42	11
13	Quality is treated as separate initiative	10	1.78	1.05	2.67	7
8	There are excess layers of management	11	1.69	.95	2.65	8
14	Top management is not committed to quality.	12	1.62	1.23	2.34	16
16	Strategic plans do not include quality goals	13	1.58	0.87	2.55	10
11	The strategic plan is not customer driven	14	1.50	0.79	2.51	14
21	The high costs of implementing TQM outweigh the benefits	15	1.46	1.12	2.37	15
17	The best practices and/or products of other companies are not benchmarked.	16	1.42	1.04	3.00	1
18	Quality is not everyone's responsibility	17	1.39	0.81	2.73	18
7	Cross functional teams are not employed	18	1.31	0.65	2.25	20
10	Quality action plans are often vague.	19	1.29	0.72	2.12	21
15	There is frequent turnover of employees	20	1.23	0.63	2.51	12
12	Management's compensation is not linked to achieving quality goals	21	1.19	0.54	2.34	17

M = Mean. A five point Likert scale with 1 = not all true; 5 = completely true. SD = Standard Deviation, N = 120

Table 2: Factor Analysis

Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
4	.732				
9	.673				
10	.783				
12	.636				
17	.555				
5		.751			
6		.747			
7		.695			
13		.698			
15		.770			
4			.964		
8			.762		
14			.788		
18			.722		
2				.727	
19				.695	
20				.827	
21				.782	
1				.723	
2				.725	
Eigen value	2.881	2.684	2.653	2.308	1.048
% variance Extracted	17.1	16.5	15.4	14.8	13.9
Cumulative % of variance	17.1	33.6	49.0	53.8	67.7
KMO	.785	.741	.809	.782	.801
Bartlett Test of Sphericity	0.000	0.000	0.000	0.000	0.000

Notes: Extraction Method: Principal Component Analysis
 Rotation Method, Varimax with Kaiser normalization
 Factor loading > 0.50-Eigen value > 1.

The results of descriptive analysis in Table 1 indicate the mean and standard deviation of each barrier. The higher mean represents the higher importance of the barrier. The mean value of responses ranged from 2.48 to 1.19. The results reflect that employees' resistance to change is the most significant barrier with a mean value of 2.48. This is followed by lack of employees training in managing TQM effort (M = 2.38) and lack of empowerment to implement quality improvement (M = 2.20). Inadequate resources for TQM is another important barrier perceived by respondents (M = 2.09) and (M = 2.05) respectively. These results have been compared with a similar study undertaken in India [21]. There are similarities and contrast in both studies. The main similarities with regard to barriers include resistance to change, ineffective human resource management dimensions, lack of adequate infrastructure, lack of planning, inadequate support and commitment from top leadership and lack of customer focus. The noteworthy contrast is the use of benchmarking of best practices that is the top barriers in India whereas this aspect has found to be fairly low in ranking in case of organizations in Pakistan.

Factor analysis was undertaken to explain the intercorrelations among items of the instrument indicating the barriers to TQM implementation. The result of factor analysis is in Table 2. The results indicated KMO value of 0.756 and Bartlett's test of sphericity as 0.000 that is within higher range [30].

The factor analysis extracted five factors and accounted for 67.7% of the variance. Reliability and validity of the instrument was measured. The reliability was measured through Cronbach's alpha. The Cronbach's alpha for all factors were within acceptable range as recommended by Nunnally (1978) [31]. The construct validity measured through factor analysis. The results of factor analysis confirmed the construct validity.

DISCUSSION

The purpose of the study was to investigate the barriers that service organizations experience during implementation of TQM in Pakistan. The results indicated five important barriers, namely, inadequate human resources management, lack of adequate resources for TQM, lack of planning, inadequate support from the

leadership and lack of customer focus. The results of the study concur with the discoveries of earlier study [5, 11, 18, 21, 29].

The most significant barrier identified by respondents is employees' resistance to change. Cultural change is essential for successful implementation of TQM. TQM initiates a complete change in employees' feelings, thinking, behaviour and job-related practices. TQM culture manifest a holistic approach with continuous improvement integrated in each work activities. It emphasizes doing things right the first time. The management and workers acts as a team and provide synergy for achievement of organizational goals. The processes are redesigned to align with employees' benefit. This cultural transformation necessitates change in every facet of organizational work life [6]. The employees are afraid of this transformation and experience multidimensional pressure in physical and psychological dimensions. They view this transformation as setback to their attitude and practices and tend to resist it. To make this transformation successful, it is imperative to undertake building of people skills to support the transformation, aligning organizational structure and system and interpersonal style of the management [28]. Participation in decision-making and problem solving is essential to sustain integrated move to change. The organization gives purpose and pride of work to achieve the shared goals of excellence. The entire culture is cooperative and integrated. The cultural transformation is based on translucent thinking, discipline, trust, openness, respect, home like work environment, a high sense of purpose and commitment and pride in work. Emotional support is provided to ward off fear of change and necessary resources are provided to enhance competencies to perform under the new paradigm.

The study also highlighted inadequate training, involvement and lack of empowerment of employees as second and third most significant barriers. People are the advance guard of TQM success. Matta *et al.*, (1996) emphasized that effective employees' management is the most significant means in achieving success to TQM initiatives [12]. Effective training and employees empowerment provides multiplier effects in improving the processes and service quality. Boselie *et al.*, (2005) stressed that people focused practices foster creativity, experimentation, improved competencies, synergy and build commitment to contribute effectively to achieve TQM objectives [32]. Employees' involvement in quality-related issues augments their understanding of quality

problems and resolving these issues at their level [33]. It has been established that investment in development of employees' competencies and empowerment yields strategic gains.

Expenditures on TQM implementation is considered as a strategic investment because its success offers cost competitiveness, satisfaction of internal and external customers, improved productivity, service excellence, high market share and improved profitability. The outcome of TQM takes time to materialize [34]. Maintaining and sustaining TQM efforts needs resources. Lack of adequate resources reflects poor planning, inadequate management support for TQM initiatives and results in frustration of employees, affects internal and external customer satisfaction, increases cost, reduces productivity and influences organizational profitability [35]. Hill (2008) stressed the need for adequate support to achieve success in TQM implementation [36].

The above barriers of resistance to change, inadequate human resources management practices and lack of adequate resources are attributed to two important aspects of lack of top management commitment and support to TQM initiatives and lack of planning. Leadership plays crucial role in planning, implementing and sustaining TQM initiatives [37]. It has been emphasized that commitment of leadership to TQM implementation manifests in provisioning of adequate resources for training of employees, cultural transformation, eliminating fear, inculcating trust, communication and participation of employees during TQM implementation [38]. According to Zairi (2002, p. 1168), "it is the responsibility of leaders to create and communicate a vision that moves the organization to continuous improvement." [39]. Identifying critical role of employees and making them contribute positively toward TQM success is essential. The leadership needs to provide enabling environment to foster employees' participation, giving them competencies to resolve problems and take pride in their work. The strategic approach to TQM is essential with a focus on institutionalizing quality as everybody's responsibility in the organization [40]. Senapati (2004, p. 684) emphasized that "TQM is an approach to improving the competitiveness, effectiveness and flexibility of a whole organization in ways that each activity is planned, organized and understood. Therefore, lack of planning and leadership for quality can hinder this." [41]. Organizations need to realize that TQM takes time to be effective. It cannot happen overnight. Also, the implementation of a TQM culture requires a long-term approach [42]. It may take a company 3-5 years

to implement an effective TQM program and a couple of years before financial performance start to improve [34]. Companies must be aware of this when calculating the benefits and results and plan and lead accordingly.

The study offers opportunities to corporate decision makers, business leaders, quality expert, academician and human resources practitioners to understand the impediments that affect sustainable TQM success. The study indicated important barriers to TQM implementation as employees' resistance to change, inadequate HRM practices and lack of adequate resources, as the most significant barriers. These factors are directly related to organizational planning for TQM initiative and leadership support to TQM success. It is imperative for organizations that quality improvement initiatives or TQM initiatives need to focus on these important aspects with a view to achieve sustained excellence in performance.

The study is limited to only ten service organizations that have implemented TQM initiatives. The sampling technique and the limited number of organizations are likely to affect the generalizability of the results. It is recommended that further research may be carried out with larger sample organizations both in manufacturing and service industries. In addition, public and private sector organizations may be investigated. Because realization of TQM initiative is likely to give financial results in the long-term, a longitudinal study would be a better option to identify the dynamics of this phenomenon. The future studies may also focus on relationship of TQM barriers and specific performance outcome.

CONCLUSION

The study examined empirically the impediments experienced by service organizations involved in implementing TQM in a developing economy. The study empirically validated the earlier studies in identification of barriers in implementing TQM. Implementing TQM and realizing the desired objectives is an enduring process and takes time. Managers must understand the effects of these obstacles on the desired outcomes of TQM initiatives. Managerial awareness to these barriers and proactive response to prevent these obstacles at earlier stage of planning and implementation is vital for success. An integrated approach to this essential facet duly augmented with contemporary benchmark practices is likely to create requisite synergy to avert the fallout of these barriers and make TQM implementation process a success.

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