# ADAPTABILITY OF TOTAL QUALITY MANAGEMENT TO SERVICE SECTOR

Deepak Juneja<sup>1</sup>, Shahzad Ahmad<sup>2</sup>, Sunil Kumar<sup>3</sup>

<sup>1</sup>M.Tech. Scholar,Al-Falah School of Engineering & Technology
Dhauj,Faridabad,Haryana,India
deepakjuneja84@gmail.com

<sup>2</sup>Asst. Prof.( Mechanical Engineering Deptt.), Al-Falah School of Engineering & Technology
Dhauj,Faridabad,Haryana,India
ershahzadjmi@gmail.com

<sup>3</sup>Sr.Lecturer (Mechanical Deptt.),Laxmi Devi Institute of Engineering & Technology
Chikkani,Alwar,Rajasthan,India
sunil.liet@gmail.com

#### Abstract

This Research paper underlines the dominance of service quality and adaptability of TQM in the service sector. It explains that with the growing maturity of society with respect to education, culture and standards of living, the user expectations and demands for improved quality of service are increasing. This is part of the pressure causing service organizations to explore total quality management (TQM) as a means of driving quality improvement into all their activities.

We have witnessed the increased acceptance and use of TQM even in the service sector during the last decade, with service quality being an important factor for growth, survival and success. Interest in service quality has increased in the recent years, with a growing literature applying TQM concepts in the service sector.

**Keywords:** TQM (Total Quality Control), Service Quality Sub Area: Total Quality Management Broad Area: Mechanical Engineering.

#### 1 Introduction

### 1.1 Total Quality Management (TQM)

Total = Quality involves everyone and all activities in the company.

Quality = Conformance to Requirements (Meeting Customer Requirements).

Management = Quality can and must be managed.

TQM = A process for managing quality; it must be a continuous way of life; a philosophy of perpetual improvement in everything we do.

Total Quality Management (TQM), a buzzword phrase of the 1980's, has been killed and resurrected on a number of occasions. The concept and principles, though simple seem to be creeping back into existence by "bits and pieces" through the

evolution of the ISO9001 Management Quality System standard.

While Total Quality Management (TQM) is widely practiced, there is little agreement on what it actually means (Heady and Smith, 1995; Lau and Anderson, 1998). The term first appeared in 1961, when it was devised by Feigenbaum, who named it as total quality control (TQC). Beginning from 1950, scholars like Deming, Juran and Crosby, taught for more than forty years, quality ideas without using the adjective 'total'. In 1988, with the creation of the European Foundation of Quality Management, the importance and value of TQM was stressed to 'reach total customer satisfaction'. Feigenbaum, the originator of the term, defines TQM as the "Total Quality Control's organization wide impact".

## 1.2 Service Quality

It is very tedious to define quality. The confusion of the definition is pronounced in the service sector, so it becomes more difficult & orthodoxical to moderate the definition of quality according to service sector and to develop a new term "Service Quality". The characteristics that tend to differentiate services from goods — intangibility, inseparability of production and consumption, heterogeneity and perishability. The problem is further accelerated by necessary reliance customer perception, with on introduction of subjective and intangible elements. Thus, the measurement of service quality often remains a challenge. Defining the term, "service quality", is something like beauty in the yes of the

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beholder; in other words, it is person-dependent and has different meanings for different people.

#### 2. Principles of TQM

The key principles of TQM are as following:

#### **Management Commitment**

- Plan (drive, direct)
- Do (deploy, support, participate)
- Check (review)
- Act (recognize, communicate, revise)

#### **Employee Empowerment**

- Training
- Suggestion scheme
- Measurement and recognition
- Excellence teams

#### **Fact Based Decision Making**

- SPC (statistical process control)
- DOE, FMEA
- The 7 statistical tools
- TOPS (FORD 8D Team Oriented Problem Solving)

#### **Continuous Improvement**

- Systematic measurement and focus on CONQ
- Excellence teams
- Cross-functional process management
- Attain, maintain, improve standards

#### **Customer Focus**

- Supplier partnership
- Service relationship with internal customers
- Never compromise quality
- Customer driven standards

#### 3. TQM in Service Sector

In the earlier days of evolution of TQM, the sole concentration was to apply all the research and principals in the production sector. At that time, the quality factors of service sector was not much defined. When the growing competition raised the demand of service quality, then the need of TQM implementation in service sector was understood. And that time it became the biggest question –"Can the principles of TQM be applied to service industries"? The literatures and view points of various researchers (some of them are mentioned

above) made the latest moderations to TQM concepts that time and made TQM adaptable for Service Sector.

The last decade has witnessed the increased acceptance and use of TOM even in the service sector (Milakovich, 1995), with service quality being an important factor for growth, survival and success (Rudie and Wansley, 1985; Thomson et al., 1985; Quinn and Humble, 1993; Anderson et al., 1994; Donaldson, 1995; Rust et al., 1995). Interest in service quality has increased in the recent years, with a growing literature applying TQM concepts in the service sector (Dotchin and Oakland, 1994; Kettinger and Lee, 1995 a, b; McDaniel and Louargand, 1994). Just as quality is difficult to define (Garvin, 1988), the confusion of the definition is pronounced in the service sector (Galloway, 1996; Kuei, 1999), due to the characteristics that tend to differentiate services from goods — intangibility, inseparability of production and consumption, heterogeneity and perishability (Berry, 1980: Lovelock. Parasurman et al., 1985; Zeithaml et al., 1985; Bitner, 1992; Dotchin and Oakland, 1994 a, b, C; Ghobadian Ct al. 1994). The problem is further accelerated by necessary reliance on customer perception, with the introduction of subjective and intangible elements. Such differences have led to lack of standardization, and service quality can vary considerably from one situation to the next. With in the same organization (Berry et al., 1990). The characteristics of services, in particular the subjectivity and intangibility of much of the service encounter, confound quantification of quality measures (Zeithami et al., 1990). Thus, the measurement of service quality often remains a challenge (Babakus and Boiler, 1992; LeBlanc and Nguyen, 1997). Defining the term, "service quality", is something like beauty in the yes of the beholder; in other words, it is person-dependent and has different 'eanings for different people. Berry et al., (1990), view consumers as being. Sole judge of service quality as, "according to their perceptions of service: ality resulting from a comparison of their expectations prior to receiving the service, and their actual experience of the service". Service quality, as perceived by customers, involves a comparison of what they feel the service should be (expectation, E) with their judgment of the services they received (perceptions, P) (Sasser et al., 1978 a; Lehtinen and Lehtinen, 1982; Gronroos, 1982, 1984; Lewis and

Booms, 1983; Parasuraman et al., 1985; Zeithami et aI., 1985). Although most researchers agree with the perception minus expectation theory, a number of issues have been raised (Carman, 1990; Babakus and Boiler, 1992; Cronin and Taylor, 1992; Teas, 1993). But the nature of the causal relationship, if any, between customer satisfaction and perceived quality is disputed (Cronin and Taylor, 1992), and the customer may, in any case, have quite different perceptions of quality from service providers. Nevertheless, most definitions of Quality are customer-centered (Galloway and Wearn, 1998), with customer satisfaction being seen as functions of perceived quality (Anderson and Sullivan, 1993), or perceived quality being a function of customer satisfaction (Parasuraman et al., 1988).

Parasuraman, Zetham1 and Berry (1985), proposed ten dimensions of service quality, viz., reliability, responsiveness, competence, access, courtesy, credibility, security, understanding customers and tangibles. These dimensions were later reduced to five, namely tangible, reliability, responsiveness, assurance and empathy. Sasser et al., (1978 b), identified the dimensions as Security, consistency, attitude, completeness, condition, availability and training. Gronroos (1990), identified the dimensions reliability, trustworthiness, accessibility, professionalism and skill, attitudes and behavior, reputation and credibility, recovery and flexibility. Schvaneveldt et aL, (1991), defined these as, accuracy, responsiveness, ease of use, emotion, environment, completeness and performance. The American Society for Logistics (ASLOG), suggests that service quality be defined in terms of communication, time, organization, flexibility, reliability and post-sales In service quality, there are no direct guidelines / methodologies for measuring Quality (Kettinger and Lee, 1995 a, b), in spite of the fact that numerous terminologies and methodologies that have been proposed. The most widely used and tested service quality survey instrument has been SERVQUAL, developed by Parasuraman Ct al., (1988, 1991, 1993, and 1994), based on the service quality 'gap model'. This defines service quality as a function of the gap between customer's expectations of a service and their perceptions of the actual service delivery by the organization. Schvaneveldt et al., (1991), introduced a method for measuring service quality on the basis

of two perspectives first, the objective" that involved the presence or absence of a particular quality dimension, and second, the "subjective", that involved the users' resulting sense of satisfaction or dissatisfaction. With Cronin and Taylor (1992), disputing the appropriateness of the perception minus expectation gap, they developed an alternate instrument that measured performance (SERVPERF), based on the fundamental that "Service quality could be measured as an attitude", thus, focusing on the customers perceptions. Teas (1993), proposed the Normal Quality model (NQ Model), based on expectations that could be interpreted in two different ways - at the idea level, by giving each attribute the highest score, and at the feasible level when considered under the actual conditions under which the service is delivered and further, stimulating potential idiosyncratic effects. Another instrument is the one proposed by Franceschini and Rossetto (1997), called the OUALITOMETRO, and based on evaluation and "on-line", service quality control. The other popular approach is the QFD (Quality Function Deployment) technique was initiated by Professor Mizuno and Akao in the 1970's. The QFD is a 'system', for designing a product or service based on customer demands, with the participation of members of all functions of the supplier organization.

Proactive service firms need to emphasize on two factors.

to exceed the expectations of customers by anticipating their needs and satisfying them, and to Maintain a long lasting relationship with customers offering loyal service, - this is being increasingly realized by service firms which are now adopting TQM techniques.

#### 4. How is service industry different?

Modern methods of quality control were developed and matured in manufacturing industries. These involve the processing and fabrication of materials into finished durable and nondurable goods.... Service, however, is a relatively distinct non manufacturing activity. Work is performed for someone else.

The major distinctions between service and manufacturing organizations are that the product:

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is intangible and ephemeral; is perishable; frequently involves the customer in the delivery of the product; is not perceived as a product by employees.

The intangible nature of the service as a product means that it could be very difficult to place quantifiable terms on the features that contribute to the quality of the product. This could make measurement of the quality of the product a problem for TOM.

As service products are perishable, they cannot be stockpiled and must be produced 'on demand'. The result is that the process for delivering a service may be highly complex involving the co-ordination of primary and support systems in what is usually a very time sensitive relationship with the customer. This is in contrast to manufacturing organizations where although time may be an important aspect in the delivery of the goods it is rarely regarded as a feature of the goods which will affect its quality.

In the case of a service organization time is regarded as an assessable quality or feature of the product. For example people usually book aero plane flights based on the departure and arrival times that are most convenient. If a traveler is expecting to arrive at a destination at a specified time, and the aero plane is 2 hours late the product will most likely have failed to meet the person's satisfaction. This is irrespective of how comfortable the aero plane was, how good the in flight service was, or the fact that the flight had been made safely.

The customer is frequently directly involved in the delivery of the service and as such introduces an unknown and unpredictable influence on the process. The customer also adds uncertainty to the process because it is often difficult to determine the exact requirements of the customer and What they regard as an acceptable standard of service. This problem is magnified by the fact that, standards are often judgmental, based on personal preferences or even mood, rather than on technical performance that can be measured (King, 1985).

This has the result that while a service completely satisfied a customer yesterday exactly the same service may not do so today because of the mood of the customer. Therefore there is a problem of the fickle customer!

#### 5. Implementation of TQM in service sector

The following steps are proposed for the implementation of TQM service system:

- Step 1- Formulate the service quality strategy
- Step 2 Analyze service process and define quality measures
- Step 3 Establish process control system
- Step 4 investigate the process to identify improvement opportunity
- Step 5 Improve process quality

In India both the public and top private sectors like Infosys, Tata, Wipro; Swaraj etc are using total quality system in their organization successfully.

A preliminary step in TQM implementation is to assess the organization's current reality. Relevant preconditions have to do with the organization's history, its current needs, precipitating events leading to TQM, and the existing employee quality of working life. If the current reality does not include important preconditions, TQM implementation should be delayed until the organization is in a state in which TQM is likely to succeed.

If an organization has a track record of effective responsiveness to the environment, and if it has been able to successfully change the way it operates when needed, TQM will be easier to implement. If an organization has been historically reactive and has no skill at improving its operating systems, there will be both employee skepticism and a lack of skilled change agents. If this condition prevails, a comprehensive program of management and leadership development may be instituted. A management audit is a good assessment tool to identify current levels of organizational functioning and areas in need of change. An organization should be basically healthy before beginning TQM. If it has significant problems such as a very unstable funding weak administrative systems, lack managerial skill, or poor employee morale, TQM would not be appropriate.

However, a certain level of stress is probably desirable to initiate TQM. People need to feel a need for a change. Kanter (1983) addresses this phenomenon be describing building blocks which are present in effective organizational change. These forces include departures from tradition, a crisis or galvanizing event, strategic decisions, individual "prime movers," and action vehicles. Departures from tradition are activities, usually at lower levels of

the organization, which occur when entrepreneurs move outside the normal ways of operating to solve a problem. A crisis, if it is not too disabling, can also help create a sense of urgency which can mobilize people to act. In the case of TOM, this may be a funding cut or threat, or demands from consumers or other stakeholders for improved quality of service. After a crisis, a leader may intervene strategically by articulating a new vision of the future to help the organization deal with it. A plan to implement TQM may be such a strategic decision. Such a leader may then become a prime mover, who takes charge in championing the new idea and showing others how it will help them get where they want to go. Finally, action vehicles are needed and mechanisms or structures to enable the change to occur and become institutionalized.

#### 6. Steps in Managing the Transition

Beckhard and Pritchard (1992) have outlined the basic steps in managing a transition to a new system such as TQM: identifying tasks to be done, creating necessary management structures, developing strategies for building commitment, designing mechanisms to communicate the change, and assigning resources.

Task identification would include a study of present conditions (assessing current reality, as described above); assessing readiness, such as through a force field analysis; creating a model of the desired state, in this case, implementation of TQM; announcing the change goals to the organization; and assigning responsibilities and resources. This final step would include securing outside consultation and training and assigning someone within the organization to oversee the effort. This should be a responsibility of top management. In fact, the next step, designing transition management structures, is also a responsibility of top management. In fact, Cohen and Brand (1993) and Hyde (1992) assert that management must be heavily involved as leaders rather than relying on a separate staff person or function to shepherd the effort. An organization wide steering committee to oversee the effort may be appropriate. Developing commitment strategies was discussed above in the sections on resistance and on visionary leadership.6

To communicate the change, mechanisms beyond existing processes will need to be developed. Special all-staff meetings attended by executives, sometimes designed as input or dialog sessions, may be used to kick off the process, and TOM newsletters may be an effective ongoing communication tool to keep employees aware of activities and accomplishments. Management of resources for the change effort is important with TQM because outside consultants will almost always be required. Choose consultants based on their prior relevant experience and their commitment to adapting the process to fit unique organizational needs. While consultants will be invaluable with initial training of staff and TQM system design, employees (management and others) should be actively involved in TQM implementation, perhaps after receiving training in change management which they can then pass on to other employees. A collaborative relationship consultants clear role definitions and and specification of activities must be established.

In summary, first assess preconditions and the current state of the organization to make sure the need for change is clear and that TQM is an appropriate strategy. Leadership styles and organizational culture must be congruent with TQM. If they are not, this should be worked on or TQM implementation should be avoided or delayed until favorable conditions exist.

Remember that this will be a difficult, comprehensive, and long-term process. Leaders will need to maintain their commitment, keep the process visible, provide necessary support, and hold people accountable for results. Use input from stakeholder (clients, referring agencies, funding sources, etc.) as possible; and, of course, maximize employee involvement in design of the system.7

Always keep in mind that TQM should be purpose driven. Be clear on the organization's vision for the future and stay focused on it. TQM can be a powerful technique for unleashing employee creativity and potential, reducing bureaucracy and costs, and improving service to clients and the community.

# 7. Prospect of Service Quality and TQM in the existing Service Sector

Customer satisfaction is the most important issue of any organization. And in the service sector Customer

satisfaction is directly dependent on the "Service Quality". It is not enough to produce a quality product to fully satisfy a customer. A customer also derives a great deal of satisfaction from that comes along with the product. Customer satisfaction in the service sector depends upon the product quality and the quality of service process. A service process may be defined as the wholeness of the transactions between the service provider and the customer. This results in the selection, delivery and consumption of the product. Customer satisfaction in the service sector is based on the following criterion. The subjective comparison between customer expectations, their experience with the services, service outcome, delivery of regular services and effective handling of problems. An organization must monitor, evaluate and control its employee's behavior to meet customer expectations for services. For instance, in the restaurant business the way customers are treated by waiters might determine the restaurant success or failure. This way, we easily may say that the service sector even may not exist without the proper service quality and service quality may only be achieved by applying the principals of TQM in service sector.

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