

# Total Quality Management through Five "S" In Health Care Organizations



## Management

KEYWORDS :

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### ABSTRACT

*With increasing competition, advances in medical sciences, and rising patient expectations, the health care systems have become complex organizations. They need to obtain an optimum balance between the resources and patient satisfaction. Total quality management (TQM) has a great potential to address quality problems in a wide range of industries and improve the organizational performance. Juran (1995) has defined TQM as the system of activities directed at achieving delighted customers, empowered employees, higher revenues, and reduced costs. It is a philosophy aimed at continuously improving the quality and process to achieve customer satisfaction. Simply stated, it is the building of quality into products and process making quality a concern and responsibility for everyone in the organization.*

*Total quality management (TQM) has a great potential to address quality problems in a wide range of industries and improve the organizational performance. The growing need to take initiatives by hospitals in other countries to improve the service quality and reduce wastage of resources has inspired the researcher to develop a survey instrument to measure health care quality and performance in the hospitals.*

*Five-S, a simple tool was utilized as the initial step towards total quality management activities at a public hospital in Sri Lanka. This paper introduces the system improvement activities at the hospital which won several awards for quality of service at national level. Though there are multiple reasons for the significant improvement of performance at the hospital, the study team observes that Five-S has contributed heavily towards the success.*

### Introduction:

The customer identified quality is an important attribute in product and services. Quality management is a recent phenomenon. The influence of quality thinking has spread to non-traditional applications outside of the walls of manufacturing extending into service sector. Now quality means not only product or service quality but also cost, delivery and after sales services, which goes with it. Responding to this comprehensive concept of Quality, newer concepts have emerged. Starting from Company Wide Quality Control, Quality control Circle, Five-“S” to beyond re-engineering, ISO-14000, QS-9000 etc. every one of them is an off shoot of this development. Each one of them has its merits and demerits. It is for the users to decide which concepts are relevant and useful to them. That means knowing about them and understanding them in the right way. This is a much-needed requirement of the day.

Total quality management (TQM) has a great potential to address quality problems in a wide range of industries and improve the organizational performance. The growing need to take initiatives by hospitals in other countries to improve the service quality and reduce wastage of resources has inspired the researcher to develop a survey instrument to measure health care quality and performance in the hospitals.

Five S is an integrated concept for proper housekeeping and they call it as ‘workplace management’. According to them effective workplace management calls for five steps viz., organizing, neatness, cleaning, standardization and discipline. Japanese in their language call these steps as SEIRI, SEITON, SEISO, SEIKETSU and

SHITSUKE. It is a proof of good SEIRI, SEITON and SEISO. For healthy and vital environment, along with work place management, personal cleaning, neat and clean work clothes, work hats, safety shoes, aprons are also essential. Hairs, beards and nails must be kept trimmed and neat so that work can be done easily

The meaning of the Japanese word ‘SEIRI’ is to distinguishing or sorting out between wanted and unwanted items in a place and removal of the unwanted. Such a place can be a shop floor, an office, a house or a hospital.

With increasing competition, advances in medical sciences, and rising patient expectations, the health care systems have become complex organizations. They need to obtain an optimum balance between the resources and patient satisfaction. Total quality management (TQM) has a great potential to address quality problems in a wide range of industries and improve the organizational performance. Juran (1995) has defined TQM as the system of activities directed at achieving delighted customers, empowered employees, higher revenues, and reduced costs. It is a philosophy aimed at continuously improving the quality and process to achieve customer satisfaction. Simply stated, it is the building of quality into products and process making quality a concern and responsibility for everyone in the organization.

5-S practice is a methodology used to achieve and maintain quality environment in an organisation, practised in Japan for a long time. Its name stands for five Japanese words: Seiri, Seiton, Seiso, Seiketsu, Shitsuke [Osada, 1991; Ho, 1997], whose English and Spanish equivalents and their meaning are shown in Table :

Japanese	English	Spanish	Meaning
Seiri	Structure	Sentido de la Organización Organización	Separate the things that are necessary from those that are not, and keep the number of unnecessary ones as low as possible (Organisation)
Seiton	Systematise	Sentido del Orden Orden	Efficiency; things must be kept in appropriate places, which make them ready to use when needed (Neatness)
Seiso	Sanitise	Sentido de la Limpieza Limpieza	Cleanliness; stresses the importance of keeping the workplace clean (Cleaning)
Seiketsu	Standardise	Sentido del Hábito Estandarización	Visual Management to continually maintain organisation, neatness and cleanliness (Standardisation)
Shitsuke	Self-discipline	Sentido de la Disciplina Disciplina	Instilling the ability to do things the way they are supposed to be done (Discipline)

Table 1: English equivalent of Japanese 5-S words and their meaning

Most Japanese consider 5-S useful not just for improving physical environment, but for improving thinking process as well [Ho, 1999; Sui-Pheng & Khoo, 2001]. In this context, the stratification management, visual management, habit and discipline management proposed by 5-S methodology can be considered modulators and drivers of the spheres of perceptive processes, feeling processes, cognitive processes, and executive processes [Lopez-Fresno, Fernandez Gonzalez, 2004]. 5-S drives the necessary cognitive-behavioural process for the continuous adaptive process between changes and keeps identity.

Through 5-S the individuals rebuild their own workplace, which makes them able to see changes occur, observe and reflect, and through their own actions they can adapt new mental models for how things should be done. So 5-S should not only be focused as a technique to improve quality environment, but also as a philosophy, a set of principles that can help to focus, analyse and manages any aspect, task or problem both in the individual and in the organizational context. From this consideration we can introduce the criteria that 5-S is a tool to separate untidiness and disorder from the inherent chaos of change processes. 5-S constitutes a universal and transcultural piece, applicable also to the Occidental society, including the Mediterranean one.

#### Objective of the research:

- (1) To identify need of Quality Management in Healthcare Organizations.
- (2) To identify importance of 5-S in Quality Management.
- (3) To identify various steps of 5-S for better house-keeping.

#### Literature review:

A study by Salaheldin (2009) indicates that there are many empirical studies which examine TQM practices performance relationships in large firms but the small and medium firms still need a little more attention of researchers. While the literature concerning service quality dimensions in the healthcare industry is replete with studies from the developed world, researchers from developing countries have been exploring the applicability of the related models and frameworks in their specific context. In Private hospitals context, there is a dearth of an independent model of service quality as almost all the existing studies applied SERVQUAL framework, except that of Duggirala et al. Govt hospitals too does not seem to have any established framework for measuring quality efforts and performance of its health care industry. Zakuan et al. suggest that despite the number of publications and quantity of research on TQM, there is actually little empirical work that has been carried out in developing countries, particularly in the ASEAN region. Though there are evidences of recent studies in USA pertaining to total quality management and performance in health care none of them claims for having addressed the issue in totality.

The current state of research in the area of health care quality along with the inadequacy and cost of health care services in Uttar Pradesh(Lucknow) seems to justify the present study entitled "Total Quality Management Through Five "S" In Health Care Organizations"(With special reference to Hospitals of Lucknow Region) comparison between govt. hospitals and private hospitals. Studies have suggested quite a large number of factors/ elements/constructs/dimensions of TQM implementation. Many of them have appeared more frequently than others. TQM and performance improvement have a positive relationship, particularly, the Malcolm Badrige quality award criteria confirms such relationship between quality management practices and business results.

#### Research Methodology:

The primary data are collected from hospitals of Lucknow. With the help of Doctors and supportive staff, nurses 3 Govt hospitals and 5 private hospitals representing the result of the above topic of the research. These hospitals were initially contacted on convenience basis. The contact persons were mainly administrators and doctors. In addition to the information gathered through literature survey, two documents, namely guidelines for hospitals in pursuit of excellence, and the Baldrige health care criteria for performance excellence have been used as

sources for secondary data. The primary data are gathered through a structured questionnaire that was initially developed based on these secondary data. The responses are gathered on a five-point Likert scale. The primary data were further analysed for the second objective using analysis of chi-square and percentage analysis.

#### Data Analysis:

Using factor analysis, a model has been developed and validated for measuring quality and performance in health care organizations. A null hypothesis that "private hospitals and govt hospitals are not different in practicing the philosophy of total quality management for performance excellence in health care" is tested using the analysis of variance.

#### Findings:

The means indicate that privately run organizations have been the best followed by the government ones in the context of non-financial performance, patient focus, workforce and process, and work environment. Government

organisations are found lagging behind the other two categories in leadership and quality planning. The results related to goal setting for total quality management through five "s" in health care organizations. The null hypothesis of private hospitals and govt hospitals are not different in practicing the philosophy of total quality management for performance excellence in health care

The ANOVA indicates that the hospitals are significantly different in on knowledge management ( $p = .032$ ) with the government services being the best followed by the semi-government set ups. The leadership that makes a significant difference ( $p = .010$ ) among the hospitals. Private services have got the best mean on this construct. Using factor analysis, a model has been developed and validated for measuring quality and performance in health care organizations. The model is referred to as instrument for health care quality and performance measurement. The instrument consists of constructs, namely, nonfinancial performance, patient focus, quality planning, workforce and process, goal setting, leadership, work environment, communication, knowledge management, and financial performance. The constructs are then compared with the Baldrige framework, a guide suggested by the American Hospital Association, and the background document of the WHO European conference (2008) on health systems. The constructs are found matching with the standards referred above and taking care of all major requirements outlined for health care performance systems.

#### Discussion:

All the dimensions of quality and performance correlate significantly with each other. Among the strong correlations are quality planning-workforce and process, patient focus-workforce and process, and communication-work environment. Non-financial performance has got relatively better relationship with communication, patient focus, and financial performance. The leadership- non-financial performance correlation has been comparatively lower than that with financial performance. The study by Schniederjans et al. involving manufacturing, processing, and service companies, has also got significant correlations among all the dimensions, they have evolved. A null hypothesis that "private hospitals and govt hospitals are not different in practicing the philosophy of total quality management for performance excellence in health care" is tested using the analysis of variance. Except for goal setting and work environment the F-values did not show any significant difference between the hospitals. The mean values on the constructs for hospitals exhibit the following hierarchy of the constructs in order of their decreasing importance- work environment, leadership, goal setting, patient focus, knowledge management, quality planning, financial performance, workforce and process, nonfinancial performance, communication

Comparative analyses of the means of the average scores on the constructs are also conducted by size and type of the responding organizations. The ANOVA indicates that the whether a hospital

is private, or government, it does not have any significant effect on its perception and assessment about the quality measures. A post-hoc Turkey test, comparing the types of health care organizations with each other indicates that the private hospitals are significantly different in patient focus, whereas, the leadership aspect is found significant when private hospitals are compared with the government hospitals. Analysis of variance is also conducted to test the null hypothesis of private hospitals and govt hospitals are not different in practicing the philosophy of total quality management for performance excellence in health care.

**Conclusion:**

Finally it has been found that the hospitals are significantly different in area of knowledge management with the government services being the followed by the healthcare organisation set ups. Private services have got the best score on this construct.

Keeping the theme of the thesis in mind, the perceptions and assessments of hospitals on TQM are benchmarked against the performance of those hospitals in the USA which have received the Malcolm Baldrige National Quality Award in the health care sector. The average scores of hospitals on different constructs of the IHCQPM model are compared with the major results achieved by the recipients of the MBNQ award. In no case the hospitals are found scoring close to the benchmarks. Health care organizations are supposed to be more customer-oriented than all other organizations owing to the nature of service they are meant to offer. The quality of their services is crucial to the patients and the community. Regular surveys of satisfaction from all the stakeholders as well as the employees need to be conducted to continually assess, monitor, and improve the performance.