

## Comparison of two industries with total quality management (TQM) implementation: A study

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### Abstract

The study is an attempt made between two companies based on total quality management. The current study is also an attempt to identify the implementation of TQM and its various outcomes. In the modern business environment, there are abundant products and services that are offered to customers, but it is a quality which is a deciding factor. So for any organizations, quality management is a key concept and vital for the growth of the industry. The observation for two industries is cited in the paper.

**Keywords:** Total quality management, business organization, management

### Introduction

Total Quality Management (TQM) is a business philosophy and discipline for continuous improvement. It has been assumed that TQM is the outcome of activities that take place within an organization which implies employees to participate in the business process. Quality is an important issue for top level management as well as lower level management. Quality is regarded as the main driver in the Deming’s principles of management. There are many new economic challenges in today’s environment. This challenges can only be tackled when an organization learns to adapt to changing demands in the market. There are numerous approaches to meet the challenges and one such approach is TQM. Products and service can only win customers if it is world class and is becoming every company’s problem in the dynamic environment. TQM is concerned with the integration of achieving quality products and service in the organizations. TQM has become one of the primary issues in organizations due to customers demand to meet the specification and satisfaction. In an organization achievement of quality extends to all parts of the business from market analysis to supply chain management.

### Definitions of Quality

Quality is important in the business environment and it can be related to the different concept. The views of quality are different for different people”.

According to American Federal Office of Management Budget Circular, “TQM is a total organizational approach for meeting customer needs and expectations that involve all managers and employees in using quantitative methods to improve continuously the organization’s processes, products, and services.” Five Categories of quality definition identified by Hardie are conformance to the requirement, fitness for purpose, meeting customer perceptions, exceeding customer expectations and superior to a competitor.

### Evolution of TQM

The historical evolution of Total Quality Management can be classified into four stages

- Quality Inspection
- Quality Control
- Quality assurance
- Total Quality Management

The first stage of quality management can be seen at the 1910s when ford motor company employed a team of inspectors to check the quality of accepted products. In the second stage, TQM and quality were controlled through a specialized set of skills. After the Second World War quality was inspected by inspection team rather than workers. And the third stages called quality assurance contains all the requirement of both stages to satisfy customer’s needs. The last stages Total Quality Management comprise the principles and aspects of business processes.

Stages	Characteristics
QI (1910)	Salvage Sorting Corrective action Identify sources of non-conformance
QC (1924)	Quality manual Performance data Self-inspection Product testing Quality planning Use of statistics Paperwork control
QA (1950)	Third-party approvals Systems audits Quality planning Quality manuals Quality costs Process control Failure mode and effect analysis Non-production operation
TQM (1980)	Focused vision Continuous improvements Internal customer Performance measure Prevention Company-wide application Interdepartmental barriers Management leadership

Source: adapted: Fundamental of TQM by Jens J. Dahlggaard and Gopal K. Kanji

### Literature Review

The developments in the quality management started in 1980 which led many international companies to adopt business improvement through quality management program. There are several models to judge customers experience on quality. Shiba *et al.* define TQM as a new concept and

management tools to shape the organization. Vokurka (2001) stated that global competitiveness is a reality and quality is key to winning in the marketplace. By itself, quality may not guarantee success but it is difficult to compete without it. And like most other competitive factors, the standards of quality are constantly rising” According to Sila and Ebrahimpour

(2002) quality definitions comprises of the following factors: customer focus and satisfaction; employee training; leadership and top management commitment; teamwork; employee involvement; continuous improvement and innovation; quality information and performance measurement.

The evolution of quality management started during the Second World War and continued to the eighties. TQM evolved and application of quality standards was used in many organizations. The use of term TQM differs in countries to countries and is widely used in Europe than America. TQM delights customers by meeting their both internal and external expectations. TQM is concerned with integrating all efforts of the organization towards continuous improvement.

**Objectives of the Study**

The present study is aimed to understand the process and practice of TQM in service and manufacturing industries of two units

The study attempts to suggest suitable measures for the implementation of TQM in organizations for better performances. The study has the following objectives

1. To analyze opinions and perceptions of both managerial and employee respondents regarding practice of different components of TQM
2. To identify different adjunct areas of TQM for further research activity.
3. To suggest suitable measures for the organizations.

**Research Methodology**

The research is based on primary data collection. Data were collected from managers, senior supervisor, and workers. Purposive sampling is used in the research methodology. A total of 10 samples is collected from manufacturing as well as service industry. A systematic and structured questionnaire was prepared comprising of various aspects of TQM.

**Data Collection and Analysis**

**Section 1: Are you familiar with quality management?**

Manufacturing company		Service enterprise	
Yes	2	Yes	3
No	8	No	7

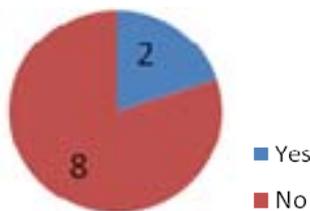


Fig 1: Pie chart for quality management for manufacturing enterprise

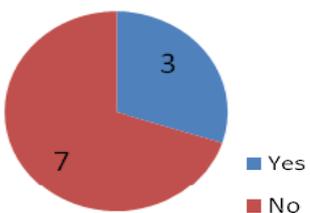


Fig 2: Pie chart for service enterprise

Analysis: In manufacturing enterprise 20% of the employee are familiar and rest 80% are unfamiliar with term quality management whereas in service enterprise 30% are familiar with the term quality management and 60% are unfamiliar with term quality management.

**Section 2:** There are many core elements of quality management. Some of the core elements of quality management with percentage are given below according to employee’s feedback

Manufacturing enterprise		Service enterprise	
Management Leadership	6	Management Leadership	6
Employee empowerment	20	Employee empowerment	7
Tools of quality	9	Tools of quality	14
Customer focus	25	Customer focus	18
Training	10	Training	20
Quality circles	19	Quality circles	18
Suppliers quality	11	Suppliers quality	17



Fig 3: Manufacturing enterprise

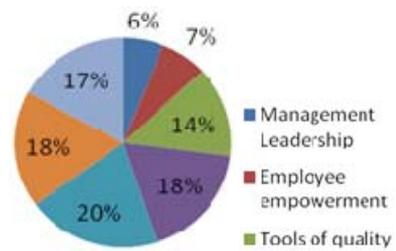


Fig 4: Service enterprise

Interpretation: Manufacturing enterprise focus on the areas of employee empowerment, customer focus and quality circles whereas service enterprise focus mostly on all areas of tools of quality, customer focus, training, quality circles and suppliers quality

**Section 3: Do you know various quality management programs?**

Manufacturing Enterprise		Service Enterprise	
Yes	2	Yes	1
No	4	No	5
Not aware	4	Not aware	4

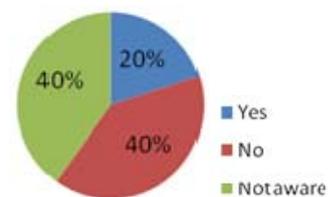


Fig 5: Manufacturing enterprise.

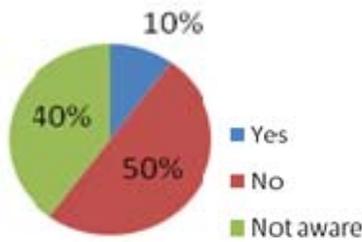


Fig 6: Service enterprise

Interpretation: Few employees in the industry are aware of TQM. Almost half of the employee are not aware of TQM program

**Analysis and Recommendation**

Quality management plays a vital role for business purpose. Customer satisfaction is very important criteria for any product or service. Top management must give importance to quality management. The role of top management plays in implementing TQM in the organization. Quality management has to be laid to every employee. The organizations in order to be world class should go for ISO standard. Tools and techniques training is very important criteria and the employee has to be trained on various tools. Quality improvement program should comprise of all people in the organization. Managers have to develop specific policies to meet quality objectives. Employee empowerment initiative should be laid emphasis. Quality circles have to be dominant in organizations to solve problems. Managers and top management have lots of responsibility in achieving world class product and service delivery. Organizations have to commit for successful TQM. Satisfied employees do work better. Employees should have a positive attitude and trained in continuous improvement program. Job training and employee development are major features for successful quality management program.

**Conclusions**

Organizations differ in the quality management practices. Some organizations may not involve workers in quality management but only top management. The product or service in the market will depend on organizational performance on quality. Quality has become one the key measure in the global market scenario. There are various authors who have done research on quality management in different areas but there lies always a scope for future research in every field of study. The type of research and areas of research has larger scope in the new research. TQM is a crucial factor for organizations to grow and retain customers and stakeholders in the competitive environment.

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