

# TQM: A Philosophy of Business Expansion by Increasing Productivity

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**Abstract:** Globalization has provided unprecedented opportunity for business organizations to grow but has resulted in ferocious competitiveness among them. Industries are becoming more and more competitive to increase their base and capture the larger portion of market and producing formidable challenges for others to enter the market. This challenging and competitive business world can be conquered by providing quality products as today customer has become more and more concerned about Quality. This is why Quality improvement is a highly desired objective in the cut throat competitive world, what a customer wants: a quality product in all respects (no harm to use, humans, climate, and having the best ability to fulfill needs of customer) at a reasonable price, and what companies want: maximum profit to all stakeholders and maximum profit to run the business successfully not in short term only but in long run to sustain business by sustaining customer satisfaction. To sustain customer satisfaction and to make customer delighted an organization should produce standard products. The present paper ensures how a business can sustain in this competitive era by using Total Quality Management Practices which includes systems, procedures, employees' involvement and top management commitment.

**Keywords:** TQM (Total Quality Management), Quality Control (QC), Quality Cost

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## INTRODUCTION

To sustain the position what a business has achieved by making a lot of efforts and using talent in past several years has become the toughest task as a number of players have entered in the battlefield with new tools and strategies. The only way to sustain this position is to sustain customer by providing the best quality product or services at lower price and making them delighted. Quality is the key area in all organization that provides the strong base to exist. **In a product** Quality can be defined as “No harm to users and climate, conformance to standards and use, reasonable price and reasonable profit to company and all stakeholders” and **in a process** as “is an approach that seeks to improve quality and performance which will meet or exceed customer expectations. This can be achieved by integrating all quality-related functions and processes throughout the company.”

An organization can achieve excellence through reengineering (cost effective solutions), quality of products and services, speed of availability of service and products and value system.

This is why an industry must focus on the process because if you have strong process bounded by effective quality control system your end result means product or service would be automatically excellent. Stronger the quality control system, better the quality of products. But there is one more important factor in this process and this is human factor or management approach in companies, management must ensure the best quality control existence and implementation on shop floor.

Before moving ahead we should understand the words- Total Quality Management, Quality Assurance and Quality Control.

**TQM** stands for **Total Quality Management**: To understand TQM, let us understand what is Total and Quality in TQM.

In TQM **Total** means involvement of all aspects of the organization to make the customer delighted.

**Quality** is what customer wants. It is customer's perception about the degree to degree to which the product or service meets his/ her expectation. Therefore, quality is defined by customer needs and expectations.

Various definitions of quality given by various people/societies/standards time to time some of them are given below:

1. ISO 9000: "Degree to which a set of inherent characteristics fulfills requirements."
2. Philip B. Crosby: "Conformance to requirements."
3. Joseph M. Juran: "Fitness for use." Fitness is defined by the customer.
4. Peter Drucker: "Quality in a product or service is not what the supplier puts in. It is what the customer gets out and is willing to pay for."
5. W. Edwards Deming: concentrating on "the efficient production of the quality that the market expects," and he linked quality and management: "Costs go down and productivity goes up as improvement of quality is accomplished by better management of design, engineering, testing and by improvement of processes."

### **Definition of TQM by ISO-**

TQM is the management approach of an organization, centered on quality, based on the participation of all its members and aiming at long term success through customer

satisfaction, and benefits to all members of the organization and to society.

Total quality management is an approach that seeks to improve quality and performance which will meet or exceed customer expectations. This can be achieved by integrating all quality-related functions and processes throughout the company. TQM looks at the overall quality measures used by a company including managing quality design and development, quality control and maintenance, quality improvement, and quality assurance. TQM takes into account all quality measures taken at all levels and involving all company employees. Thus, TQM is an integrated organizational effort designed to improve quality at every level.

### **Quality control**

Quality Control is a process by which entities review the quality of all factors involved in production. This approach places an emphasis on three aspects:

1. Elements such as controls, job management, defined and well managed processes, performance and integrity criteria, and identification of records.
2. Competence- such as knowledge, skills, experience, and qualifications.
3. Testing of products to uncover defects and reporting to management who make the decision to allow or deny product release.

### **REVIEW OF LITERATURE**

TQM is popular today and has its roots in eliminating waste, reducing variations and continually improving. TQM practices performance relationships have been studied by researchers from various fields such as quality management, operation management, and strategic management. However a consistent pattern how a TQM effect quality performance has yet to emerge. Improved quality is commonly thought to reduce cost as waste is eliminated by doing things correctly the first time (Crosby, 1979, 1984; Deming, 1986) with the help of quality tools.

Powell (1995), Adam (1997) and Samson (1999) had suggested that effective use of soft TQM practices (executive commitment, employee empowerment, customer focus) can bring performance improvement. On the contrary Motwani (1994) Forza and Fillippini (1998) advocated that quality success could be achieved by increasing use of hard TQM (process control and supplier quality management, design process, SPC, QFD)

The literature has also focused on factors which contribute to success of TQM. Lu & Sohal (1993) identified implement opportunities in the approaches adopted by Australian organization. Factors likely to contribute to success are: -

- Identification of the strategic direction of the business (Mission, Vision & Policies)
- Determination of customer expectation & measurement of perception
- Definition of strategy for implementation of the program
- Formal structure of control, monitor, & maintain improvement initiatives
- Quality assurance system (ISO9000)
- Use of external contestants

### **How to work with TQM to ensure business sustainability**

TQM can be defined as the management of initiatives and procedures that are aimed at achieving the delivery of quality products and services. A number of key principles can be identified which can ensure the sustainability of business by implementing TQM. These are as follows-

- Management – Top management should act as the main driver for TQM and create an environment that ensures its success.
- Training – Employees should receive regular training on the methods and concepts of quality.
- Customer Focus – Improvements in quality should improve customer satisfaction.
- Decision Making – Quality decisions should be made based on measurements.
- Methodology and Tools – Use of appropriate methodology and tools ensures that non-conformances are identified, measured and responded to consistently.
- Continuous Improvement – Companies should continuously work towards improving manufacturing and quality procedures.
- Company Culture – The culture of the company should aim at developing employees ability to work together to improve quality.
- Employee Involvement – Employees should be encouraged to be pro-active in identifying and addressing quality related problems.

### **Cost vs. Benefits of TQM**

Many companies have an illusion that the costs of the introduction of TQM are far greater than the benefits what it will produce. However research across a number of industries has proved that the direct and indirect costs of quality problems are far greater than the costs of implementing TQM.

As Quality has been defined by leading quality expert Philip Crosby "Quality is Free" which means process or production system should be free from wastages, rework, errors etc. He again writes that many companies choose to pay for the poor quality what he refers to as the "Price of Nonconformance". The modern concept of quality is- "Don't inspect Quality, Quality should be inbuilt." Quality can be inbuilt and completely free from defects or errors because the cost of non-quality can be prohibited. We can best understand this by looking at the three components of cost of quality: the good, the bad, and the ugly. These costs are identified in the Prevention, Appraisal, and Failure (PAF) Model.

<b>Components</b>	<b>Cost of Quality</b>
<b>The good:</b> <i>Preventive cost</i>	Costs associated with prevention activities e.g. planning, training, design improvement, supplier review, etc. to avoid the mistakes, errors and wastages.
<b>The bad:</b> <i>Appraisal Cost</i>	Costs associated with inspection e.g. inspecting of incoming goods, in-process inspection, verifying, testing, checking, auditing final inspection, etc.
<b>The ugly:</b> <i>Failure</i>	Internal failure: rework, repairs, scraps, wastage, etc.  External failure: reject, repairs, replacement, refund, compensation, customer loss, etc.

Table: 1

To work on TQM it is necessary to invest in the "good cost" (preventive cost), driving out the "ugly cost" (failure costs); and avoid the "bad cost" (appraisal cost).

As far as corporate ethics is concerned, we believe the same is also true. Investing in the "good cost" could substantially reduce the "ugly cost", while putting up with the "bad cost" at the same time.

It means cost should be associated with the design, training, quality assurance, implementation and maintenance of the TQM system not with inspection after production or rework, wastages, scraps, failures and customer complaints.

Thus, to work on Prevention cost will be more economical than paying the cost on inspection and failures. On the other hand, organization will be benefited by goodwill in market for providing the best quality products without scraps, wastages, repairing and consumer complaints that will be helpful to sustain customer satisfaction and result will be in business sustainability.

## **The Building blocks of TQM: Process, People, Management systems and performance measurement**

Process consists of bunch of activities, which is the transformation of a set of inputs, which can include action, methods and operations, into the desired outputs, which satisfy the customer's needs and expectations. In each area or function within an organization there will be many processes taking place, and each can be analyzed by an examination of the inputs and outputs to determine the action necessary to improve quality.

In every organization there are some very large processes, which are groups of smaller process, called key of core business processes. These must be carried out well if an organization is to achieve its mission and objectives. The section on processes discusses processes and how to improve them, and implementation covers how to priorities and select the right process for improvement

The only point at which true responsibility for performance and quality can lie is with the people who actually do the job or carry out the process, each of which has one or several suppliers and customers.

An efficient and effective way to tackle process or quality improvement is through teamwork. However, people will not engage in improvement activities without commitment and recognition from the organization's leaders, a climate for improvement and a strategy that is implemented thoughtfully and effectively. The section on people expands on these issues, covering roles within teams, team selection and development and models for successful teamwork.

An appropriate documented quality management system will help an organization not only achieve the objectives set out in its policy and strategies, but also, and equally importantly, sustain and build upon them. It is imperative that the leaders take responsibility for the adoption and documentation of an appropriate management system in their organization if they are serious about the quality journey. The system section discusses the benefits of having such a system, how to set one up and successfully implement it.

Once the strategic direction for the organization's quality journey has been set, it needs performance measures to monitor and control the journey, and to ensure the desired level of performance is being achieved and sustained. They can, and should be, established at all levels in the organization, ideally being cascaded down and most effectively undertaken as team activities.

## The Results of Total Quality Management

The almost universally accepted goals of total quality are lower costs, higher revenues, delighted customers, and empowered employees. These goals need little explanation. In the past few years we have moved quickly from the old concept that was managing quality just means conformance to specifications and requirements. But today- Quality means meeting and even exceeding the needs and expectations of customers. Quality includes having the right features, correct documentation, and error-free invoices. It also includes the proper functioning of critical business processes—on-time delivery, friendly and accurate technical support, and no failures. Quality involves reducing all the costs of poor quality.

- **Lower Costs.** Higher quality can mean lowering costs by reducing errors, reducing rework, and reducing non-value-added work. In the past 15 or 20 years companies around the world have repeatedly demonstrated that higher quality frequently means lower costs. The costs associated with preventing errors during design are often far less than correcting the errors during production, the costs of preventing errors during production are far less than correcting the errors after final inspection, and the costs of finding and correcting errors during final inspection are far less than fixing the errors after the customer has received the goods or services.
- **Higher Revenues.** Higher quality can mean better satisfied customers, increased market share, improved customer retention, more loyal customers, and even premium prices. Customers are increasingly beginning to expect and demand high-quality goods and services. By exceeding the levels of quality offered by competitors in the marketplace, organizations can add new customers, retain old customers, and move into new markets. Often, informed customers are willing to pay a price premium for higher levels of quality that provide new and useful features or that reduce total life-cycle costs.
- **Delighted Customers.** “Delighted” customers are the customers who are highly satisfied with the product or service means actual product is far better than their expectations this is why they buy the product or service again and again. They also advertise your goods and services for you and check you first when they are going to buy anything else to see if you also offer those goods or services. Loyal customers will frequently increase their purchases to the point of selecting sole suppliers for certain goods and services.
- **Empowered Employees.** For many years organizations viewed empowered

employees as a means for achieving lower costs, higher revenues, and delighted customers. Now most leading organizations realize that to create such employees is also a major goal of total quality management. These organizations not only aim to solve the problems of today, but they also want to create an organization that can solve, or even avoid, the problems of tomorrow.



Figure : 1

The concept of empowered employees embraces many new ideas. Empowered employees are in self-control. They have the means to measure the quality of their own work processes, to interpret the measurements, and compare these measurements to goals and take the right action when the process is going on, not on target. They are to produce the product in which quality should be inbuilt not need of inspecting quality after completion of production cycle.

## **DISCUSSION AND CONCLUSION**

Thus, TQM results in contented employees, delighted customers and the ultimate result will be in overall business growth and profitability. Companies with TQM approach could have competitive advantage over their competitors. Tools and techniques of Total Quality Management are very simple to understand and implement, the only need is the commitment of everyone in organization. The successful implementation of TQM cuts the wasteful activities, reduce scraps, reduce cost of rework, repair, customer complaints and warranty claims and reduce in process cost without compromising quality; which will yield substantial increment in customer's numbers and finally better market share in this competitive era. TQM is highly recommended to sustain a business. This is



that grand ocean which appends all three oceans- blue, red and white as today we need to dive into all three oceans across the competitive world.

## References

- *Boje, D.M. and R.D. Winsor (1993) The Resurrection of Taylorism; Total Quality*
- *Conti, Tito (1993). Building Total Quality, Chapman and Hall, London*
- *Felipe F. Baesler. Milton Moraga & Francisco J. Ramis (2002) 'Productivity improvement in the wood industry using simulation and artificial intelligence', winter simulation conference, pp. 1095-1098.*
- *Fisscher, O.A.M. and Weerd-Nederhof P.C. de. (2000) Social-dynamical aspects of quality management in NPD TQM Magazine*
- *Godfrey, A. Blanton (1998). "Hidden Costs to Society." Quality Digest, vol. 18, no. 6, June*
- *Koehn, D. and M.R. Nayebpour (2000), The ethics of quality: Problems and preconditions, Paper for the 10<sup>th</sup> int. colloquium on Business and Economics Ethics, Barcelona*
- *Management's Hidden Agenda, Journal of Organizational Change Management. 6, No 4*