



TQM : An Emerging Necessity for Small Scale Industry Sector

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ABSTRACT

Total Quality Management (TQM) involves continuous improvement of the production of goods and services aimed, at increasing customer satisfaction. It is a corporate management philosophy which recognizes that customer needs and business goals are inseparable. The benefits of a TQM are improvement of quality, reduction of the costs of poor quality, and the ability to compete more effectively. There is a misconception among Indian small scale industry entrepreneurs that TQM and ISO certification are 'needed for large scale units and it is an unnecessary expenditure. As the process of liberalization and globalization has affected the Indian SSI sector, the implementation of TQM in this sector is the best solution for their survival. The concept of TQM shall be the new mantra to compete with large scale units and multi national companies.

KEYWORDS:

1. Introduction:

Total Quality Management (TQM) is the management philosophy, which is the integration of all functions and process within an organization as shown in figure -1, in order to achieve continuous improvement of the quality of goods and services under a disciplined approach. The continual-improvement philosophy, people skills, analytical skills, organization and **structure** are **focused** on customers, as indicated by the arrows. **pointing to the Center.** These **four** key components function within, and **contribute** to the **organizational culture**, which is created by the organizational leadership. If any one component is missing Total Quality will not reach its potential effectiveness. It is important to see the importance of the integrated whole, rather than to look at individual parts or techniques. Total Quality is not just **about** statistical process control, or empowerment of employees, or any other component. Total Quality is the integration of all the components into a new approach to management. The goal of TQM is customer satisfaction.

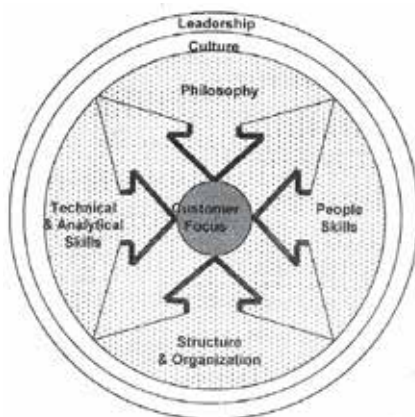


Figure – 1 TQM MODEL

TQM which is originated in Japan after Second World War is the most prominent and powerful approach applicable in business, service and industrial sectors. The methods for implementing this approach are found in the teachings of quality leaders such as Phillip B. Crosby, Deming, V. Feigenbaum, Ishikawa, Juran and Taguchi.

2. Objective:

In India, unemployment is a major problem. The SSI sector is most powerful sector in creating new jobs for the societal uplift. For the survival of SSI sector, in the present scenario, the implementation of TQM in SSI sector is the best solution. The concept of TQM may be the new mantra to compete with the multi national companies. By managing quality of the product and service up to or beyond customer requirement is the unique solution. The organizations that are quality conscious and cost competitive will survive. All ready many large and medium industries have adopted the TQM approach, and become successful. The approach is proved to be successful worldwide. But the implementation

of TQM in SSI sector is still lagging behind. So there is a lot of scope towards implementation of TQM in SSI sector.

3. TQM PHILOSOPHIES:

TQM is a corporate management philosophy which recognizes that customer needs and business goals are inseparable. A number of TQM Gurus have made their significant contributions. .

Deming's (1982) approach was statistically-based with the underpinnings of his fourteen points for management. Dr. Deming lays responsibility for quality improvement at management's door step. According to him the system is generally the cause of inefficiency & low quality.

Juran (1974) proposed his "trilogy" for improvement, with the linchpins of control, planning, and assurance. Juran thinks that 20 percent of quality problems are due to workers and the remaining are caused by management. Crosby (1979) recommended a much more behavioral approach, spurning statistics in favor of motivation and teamwork. He sums up quality management in one word, Prevention. He points out that quality improvement is a process not a program. Taguchi's (1997) definition of quality is the loss imparted to society from the time a product is shipped. Loss can be one of two things: either loss caused by variability of function or loss caused by harmful side effects.

Cost of Quality (COQ) is considered by the management as one of the important techniques of Total Quality Management especially when an organization changes its approach from detection to prevention as part of its exercise towards inspection and quality control. (S. Gurusamy 1998). It is suggested that Quality costs allow us to identify the soft targets to which we can apply our improvement efforts (J. Campanella 1999). One potentially critical facet of an organization's TQM is its ability to measure costs related to quality (M. Yasin et al 1999). To maintain/ sustain competitive edge, streamline processes, cut down costs, ability to meet customer needs and ability to reduce waste have been considered most important in their quality improvement journey (Wali et al 2000).

4. TQM PROBLEM SOLVING TOOLS:

TQM is more than a philosophy, it needs scientific techniques for its implementation. There are seven basic quality control tools, for problem solving and for in process analysis. The TQM tools are as listed below

- ❖ Flowchart - a pictorial representation of the sequence of steps, or flow, in a process. The chart may represent physical movement, information movement, or other characteristics.
- ❖ Cause-effect, or fishbone, diagram - a pictorial representation of all of the possible causes of a specified effect. The causes are outlined along 4-5 major branches, causing the final chart to look like a fishbone.
- ❖ Check sheet - a simple form to record, or check, the frequency of different events or opinions.
- ❖ Pie/bar graphs - graphs of frequency or percentage data displayed as slices of a circle, or bars, for different events.
- ❖ Histogram - a bar graph of the frequency of different events or

- ❖ measurements. A check sheet can provide the frequency data.
- ❖ Pareto chart - a specialized histogram, or bar graph, displaying the frequency of different problems in decreasing frequency. A Pareto chart is a special form of histogram used to prioritize the opportunities for improvement.
- ❖ Control charts - a run chart with the addition of upper and lower control limits. These limits are used to make judgments about when a process is out of control.
- ❖ Plan-Do-Check-Act (PDCA) Cycle - It is a four stage cycle consisting of Plan-Do-Check-Act. As shown in figure-2



Figure – 2 : PDCA CYCLE

5. IMPLEMENTATION OF TQM IN A SMALL SCALE INDUSTRY :

Action 1: Support of management:

It is compulsory for the successful launching and implementation of TQM program in the organization. The management should be well aware of TQM and they should undergo for training, if required.

Action 2: Putting the customer first:

Achieving customer satisfaction is at the heart of TQM. Both internal and external customers are important. Meet directly with customers to discuss their requirements.

Action 3: Expressing the total quality goals loudly

Publicizing and communicating your goals and progress broadly. This is especially important for people in top leadership positions.

Action 4: Identify and Understand key Functions and Processes.

This involves identifying and flowcharting the key processes. Focus on processes rather than departments to avoid interdepartmental barriers. Look at each process; can it be simplified or streamlined? Can you reduce steps or the number of people involved?

Action 5: Use of TQM tools.

The company must train employees about various TQM tools like cause effect Diagrams, pie Charts, PDCA CYCLE, Pareto charts and promote their use in day to day working to as to help them in decision making.

Action 6: Focus On System Improvements

The focus for quality improvements should be on improving systems and processes. Employee improvement is important in the process because this will allow them to work more effectively. It is important that everyone recognize that quality needs to be built into every process and product, not inspected in.

Action 7: Employee Involvement.

The company must start tapping employees' innovative and exciting ideas. Involve and encourage people who work in the process to offer ideas for improvement. Normally the same ideas that improve quality also improve cost effectiveness.

Conclusions

TQM in a small-scale industry is very important and useful. As compared to Large and Medium scale Industries, Quality Circles, Small group activity, Kaizen implementation are much easier in case of an SSI unit. Even though it is expensive to implement TQM in an SSI unit, but is worthwhile investment to sustain and excel in the global markets.

The seven actions suggested by the researcher shall help SSI to begin with TQM so as to compete with other large companies. There is misperception among Indian SSI entrepreneurs that TQM and ISO certification are needed for large scale industries and it is an unnecessary expenditure. But the certification will convey the message that they are producing products and services of higher quality and in the long run these companies shall be in a position to make handsome profit.

Hence TQM have an important role to play in increasing the efficiency of the SSI and reducing the unfruitful expenditure to enhance profitability and to remain competitive.

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