

Total Quality Management

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Total Quality Management (TQM), at the very core, is a long-term management approach to customer satisfaction. Members of an organization take part in improving processes, products, services, and the environment or culture in which they work. In my career, perhaps the TQM concept and qualifications I have received made a deterministic impact on my professional transformation and managerial style. It created a perspective of continuous improvement and focus on the quality of my outputs. I have come to hold this personal belief that what Prophet Mohammad meant by "whomever of you undertakes a job must excel at it" that it is exactly what TQM is all about. TQM is a system or set of work management practices throughout the organization, geared to ensure the organization consistently meets or exceeds customer requirements. Customers can be external clients or internal departments. In this article through a collection of previous literature, I intend to provide exposure to a concept that is the basis of operations in the industrially advanced world and hope that it would insight the reader's curiosity.

Total Quality is a description of the culture, attitude and organization of a company that aims to provide, and continue to provide, its customers with products and services that satisfy their needs. The culture requires quality in all aspects of the company's operations, with things being done right the first time, and defects and waste eradicated from operations.

The core concept underlying TQM is what is known as Deming's 14 points which, in my experience, can be adopted even at the personal level. These are a set of management practices that will result in improved quality and productivity:

1. Create constancy of purpose.
2. Adopt philosophy of prevention.
3. Cease mass process inspection.
4. End the practice of rewarding business on competitive pricing alone; instead, minimize total cost by developing your preferred, approved supplier(s).
5. Constantly improve every process for planning, production, and service.
6. Institute training on the job.
7. Adopt and institute leadership.
8. Eliminate fear among employees.
9. Eliminate barriers between staff areas.
10. Eliminate slogans and targets for workforce.
11. Eliminate numerical quotas for staff and numerical goals for management. This is not to be confused with performance KPIs.
12. Remove barriers that rob people of pride of workmanship and eliminate the annual rating or merit system.
13. Institute a vigorous program of education and self-improvement in the company to work.
14. Put everybody in the company to work accomplishing the transformation.

Adopting TQM in an organization is not something that happens overnight because there are some underlying philosophies that the company and employees must integrate throughout processes and at every level of management. The philosophies or principles must be the basis of all your activities.

In my experience and practice, I found important aspects of TQM to include customer-driven quality, top management leadership and commitment, continuous improvement, fast response, actions based on facts, employee participation, and a TQM culture.

Customer-driven quality

TQM has a customer-first orientation. The customer, not internal activities and constraints, comes first. Customer satisfaction is seen as the company's highest priority. The company believes it will only be successful if customers are satisfied. A TQM company is sensitive to customer requirements and responds rapidly to them. In the TQM context, 'being sensitive to customer requirements' goes beyond defects and reduction of error and merely meeting specifications or reducing customer complaints. The concept of requirements is expanded to take in not only product and service attributes that meet basic requirements, but also those that enhance and differentiate them for competitive advantage.

Each part of the company is involved in Total Quality, operating as a customer to some functions and as a supplier to others. The Engineering Department is a supplier to downstream functions such as Manufacturing and Field Service, and has to treat these internal customers with the same sensitivity and responsiveness as it would external customers.

TQM leadership from top management

TQM is a way of life for a company. It has to be introduced and led by top management. This is a key point. Attempts to implement TQM can fail if top management doesn't lead and get committed - instead it delegates. Commitment and personal involvement is required from top management in creating and deploying clear quality values and goals consistent with the objectives of the company, and in creating and deploying well defined systems, methods and performance measures for achieving those goals. These systems and methods guide all quality activities and encourage participation by all employees. The development and use of performance indicators is linked, directly or indirectly, to customer requirements and satisfaction, and to management and employee remuneration.

Continuous improvement

Continuous improvement of all operations and activities is at the heart of TQM. Once it is recognized that customer satisfaction can only be obtained by providing a high-quality product, continuous improvement of the quality of the product is seen as the only way to maintain a high level of customer satisfaction. As well as recognizing the link between product quality and customer satisfaction, TQM also recognizes that product quality is the result of process quality. As a result, there is a focus on continuous improvement of the company's processes. This will lead to an improvement in process quality. In turn this will lead to an improvement in product quality, and to an increase in customer satisfaction. Improvement cycles are encouraged for all the company's activities such as product development, manufacturing processes, and the way customer relationships are managed. This implies that all activities include measurement and monitoring of cycle time and responsiveness as a basis for seeking opportunities for improvement.

Elimination of waste is a major component of the continuous improvement approach. There is a strong emphasis on prevention rather than detection, and an emphasis on quality upstream. That is why mass production or business process inspection is not TQM oriented. The customer-driven approach helps to prevent errors and achieve defect-free production. When problems do occur within the work process, they are generally discovered and resolved before they can get to the next internal customer.

Fast response

To achieve customer satisfaction, the company has to respond rapidly to customer needs. This implies short lead cycles. These can be achieved with customer-driven and process-oriented operations because the resulting simplicity and efficiency greatly reduce the time involved. Simplicity is gained through concurrent activities. Efficiencies are realized from the elimination of non-value-adding efforts. The result is a dramatic improvement in the elapsed time from start to completion.

Actions based on facts

The statistical analysis of engineering and manufacturing facts is an important part of TQM. Facts and analysis provide the basis for planning, review and performance tracking, improvement of operations, and comparison of performance with competitors. The TQM approach is based on the use of objective data, and provides a rational rather than an emotional basis for decision making. The statistical approach to process management in both engineering and manufacturing recognizes that most problems are system-related, and are not caused by particular employees. In practice, data is collected and put in the hands of the people who are in the best position to analyze it and then take the appropriate action to reduce costs and prevent non-conformance. If the right information is not available, then the analysis, whether it be of shop floor data, or engineering test results, can't take place, errors can't be identified, and so errors can't be corrected.

Employee participation

A successful TQM environment requires a committed and well-trained work force that participates fully in quality improvement activities. Such participation is reinforced by reward and recognition which emphasize the achievement of quality objectives. On-going education and training of all employees supports the drive for quality. Employees are encouraged to take more responsibility, communicate more effectively, act creatively, and innovate. As people behave the way they are measured and remunerated, TQM links remuneration to customer satisfaction metrics.

A TQM culture

It's not easy to introduce TQM. An open, cooperative culture has to be created by management. Employees have to be made to feel that they are responsible for customer satisfaction. They are not going to feel this if they are excluded from the development of visions, strategies, and plans. It's important they participate in these activities. They are unlikely to behave in a responsible way if they see management behaving irresponsibly - saying one thing and doing the opposite.

Product development in a TQM environment

This is my favorite part. Product development in a TQM environment is very different to product development in a non-TQM environment. Without a TQM approach, product development is usually carried on in a conflict-laden atmosphere where each department acts independently. Short-term results drive behavior so scrap, changes, work-arounds, waste, and rework are normal practice. Management focuses on supervising individuals, and fire-fighting is necessary and rewarded.

Product development in a TQM environment is customer-driven and focused on quality. Teams are process-oriented, and interact with their internal customers to deliver the required results. Management's focus is on controlling the overall process, and rewarding teamwork.

Such advantages and benefits to organizations can have a tremendous impact on businesses and the economy as a whole. Tangible results can be realized in decreased costs related to corrective or preventative maintenance, better overall performance, increase in contribution margins, reduced operating expenses, etc. This is why the Kingdom recognizes the benefit to the economy through the King Abdulaziz Quality Award because it promotes the adoption of proven methods, principles, and practices as an enablement for competing globally and deliver the expectations of customers. TQM is not a philosophy for catching and highlighting mistakes through the various inspection gates. It is a philosophy for continuously improving outputs upheld by each and every employee.