

Discuss the key elements of Total Quality Management within the context of the emerging business environment



“There are many interpretations and definitions of TQM. Put simply, TQM is the mutual cooperation of everyone in an organisation and associated business processes to produce value-for-money products and services to meet and hopefully exceed the needs and expectations of customers.”

Barrie G. Dale, 2004

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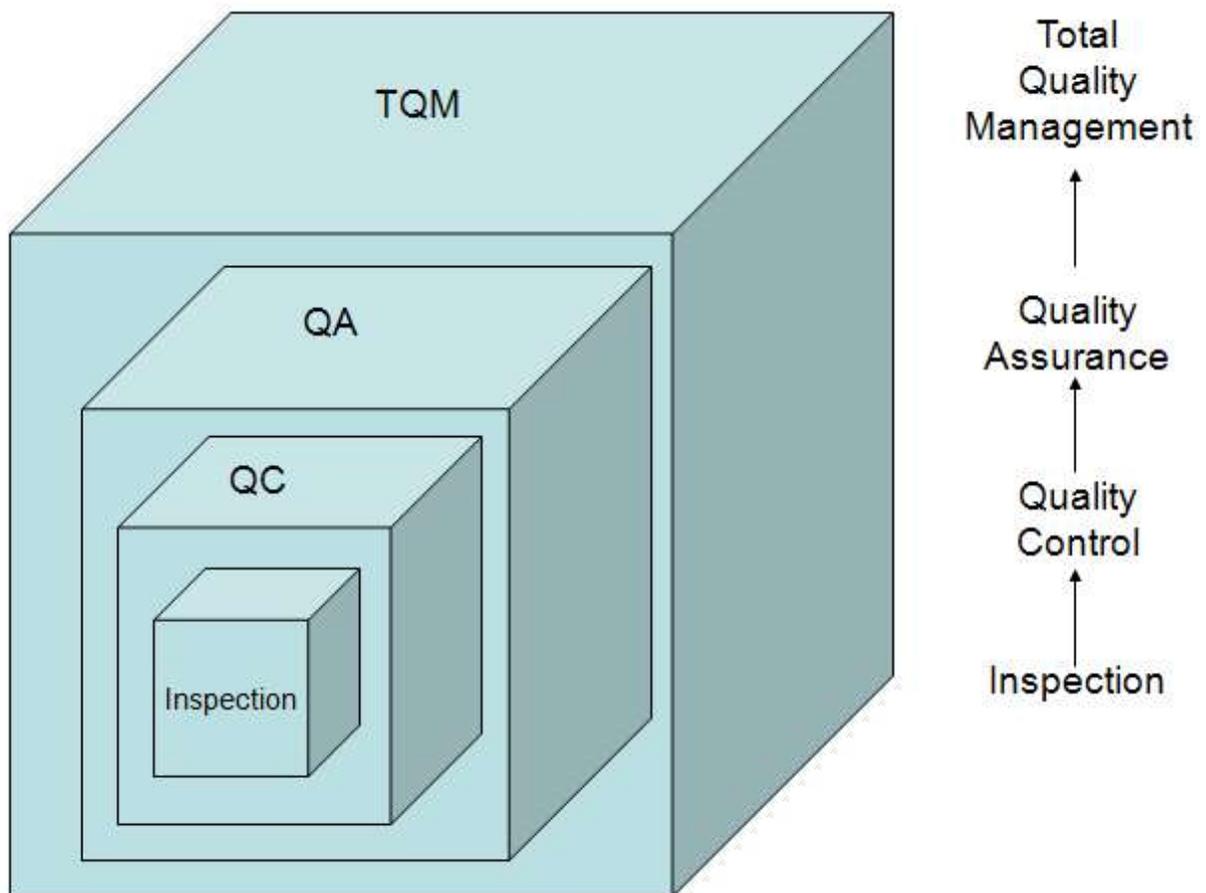
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Introduction

The purpose of this report is to look at the history of Total Quality Management (TQM) and identify the elements that are within this business improvement tool. With these key elements I will then be looking at how TQM is used within the current business environment and how its elements affect all levels of an organisation.

What is Total Quality Management?

Concepts developed in Japan beginning in the late 1940's and 1950's, pioneered there by Americans Feigenbaum, Juran and Deming set the foundations of TQM. The evolution of TQM happened in a few stages easily identified as Inspection, Quality Control, Quality Assurance and now Total Quality Management.



(Barrie G. Dale, 2007)

Inspection

This method at one stage in time was the only method that was able to ensure a certain level of quality for a product or service. In manufacturing incoming goods and output would be measured and physically inspected for defaults or not meeting required guidelines. Services would be appraised at certain levels and inspected in production and delivery. The inspection process is an after-the-event measurement process that can only result in non conforming products being sent back to be re-worked or result in lower graded products that are produced in a rating system.

Quality Control

Quality control remains in the operation of detecting mistakes, finding and fixing them after the event has occurred.

Under a quality control scheme you may find that everything is closely monitored, with detailed performance and product specifications as well as control systems for paperwork and procedures, product testing at raw material and mid-production stages with reports being filed and overall feedback on the processes involved to personnel and suppliers.

Quality control brought about delegation of quality inspection to approved operators with more sophisticated methods and systems. This brought about a higher number of process control with less non-conforming products being delivered to customers through screening.

Quality Assurance

A lasting continual improvement in quality was needed as finding and solving problems wasn't viewed as an effective means to eliminate the root problems. It was identified that this could only be achieved by targeting efforts towards planning and prevention of problems occurring at the root source. On this basis Quality Assurance was developed.

Quality systems development, advanced quality planning, comprehensive quality manuals, use of quality costs, involvement of non-production operations, failure mode and effects analysis are features attained through progression from quality control to quality assurance. At a minimum the systems adopted are likely to have met the requirements of BS EN ISO 9001 (2000). Overall the organisation should experience a shift in emphasis from detection towards prevention of non-compliant produce.

“more emphasis is placed on advanced quality planning, training, critical problem solving tasks, improving the design of the product, process and services, improving control over the process and involving and motivating people” (Barrie G. Dale, 2007)

Total Quality Management

Total Quality Management (TQM) is an initiative which aims to involve every member of an organisation, at all levels, in improving the standard of product or services that they provide.

The history of quality management, from mere 'inspection' to Total Quality Management, and its modern 'branded interpretations such as 'Six Sigma', has led to the development of essential processes, ideas, theories and tools that are central to organisational development, change

management, and the performance improvements that are generally desired for individuals, teams and organisations.

“Total Quality embraces not only the quality of a specific product or service, but everything an organisation does, might or should do to determine the opinion not only of its immediate customers or end-users, but its reputation in the community at large. Dr J. M. Juran, the American quality guru, defines the difference between Total Quality and product quality as capital Q vs small q.” (Hutchins, 1992)

TQM should be implemented into a company as a ‘Kaizen’ initiative, Kaizen is a strategy developed by the Japanese meaning ‘continuous improvement’. So with TQM, it should be at the core of an organisation and employed every working day, to achieve the best quality attainable.

“Total Quality Management (TQM) is a continuous set of mindset that keeps on improvement processes for individuals, groups and whole organizations by understanding and discovering better process.” (Poonsook Janpen 2005)

The Core Elements of TQM

Most excellence models trace their roots back to TQM, as TQM is the foundation of setting an organization up for managing its output at every level to achieve standards.

The following are most of the core elements of TQM.

Systems and Techniques

These are Quality awards and excellence models that are used to present the essential controls and discipline, in the development of quality management systems.

Identification of the relevant tools and techniques pertinent to each different stage is required. This includes the area/project and the conditions in which the tools should be used to achieve successful application. The tools used should be identified as familiar to employees and be classified as core or optional depending on their nature and impact each has on the working environment.

If a formal system for quality management isn't in place within the organisation one should be considered, the BS EN ISO 9001 (2000) is a good starting point for all companies as it outlines the major requirements.

Some of the systems they could use are the ISO 9000 series, EFQM Model, Investors in People and Charter Marks. Integration of the most relevant of professional systems shouldn't conflict with priorities and policies. Some of these systems and standards may be required as part of contractual agreements or legislative requirements.

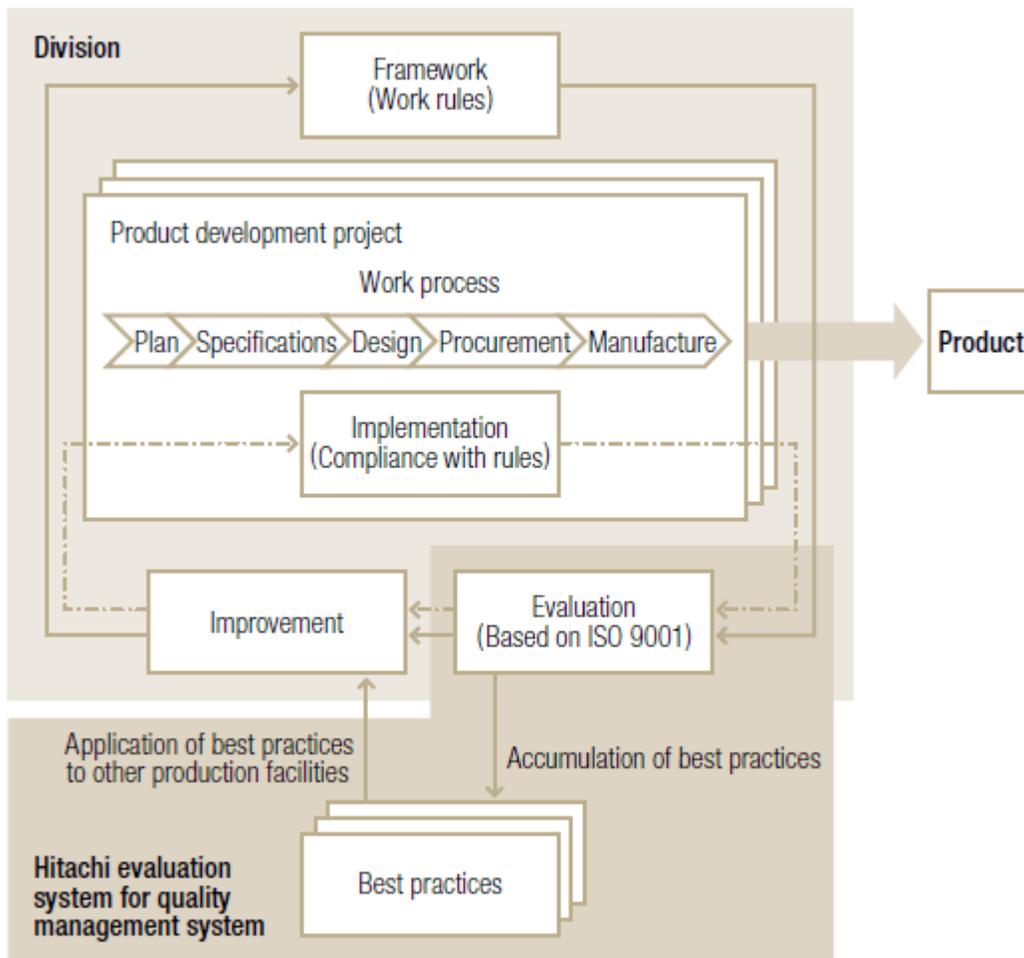
In Assessing Business excellence (Tanner, 2004), they outline that self-assessment results when set against an excellence framework provide organisations with insights to what their strengths and weaknesses are.

Developing a balanced Scorecard may prove very instrumental in developing further strategies for quality assurance. The Balanced Scorecard is a communication, informing and learning system. Used to help concatenate and to communicate strategy by aligning individual, organisational, business unit and cross-functional objectives to achieve common goals and mission. An effective scorecard analysis and deployment is a link that connects plans to the organisations key value-adding and support processes.

Processes

Analysis of processes should be an integral part of the organisation, there should be a focus on processes rather than the functions, and be part of the Kaizen initiative for continuous improvement.

In Japan they have a saying, ‘Look after the process and the product looks after itself!’ (Hutchins, 1990)



Above is Hitachi’s system for evaluating quality management in departments. This shows that it is an integral part to the development of best practices and it encourages a Kaizen environment.

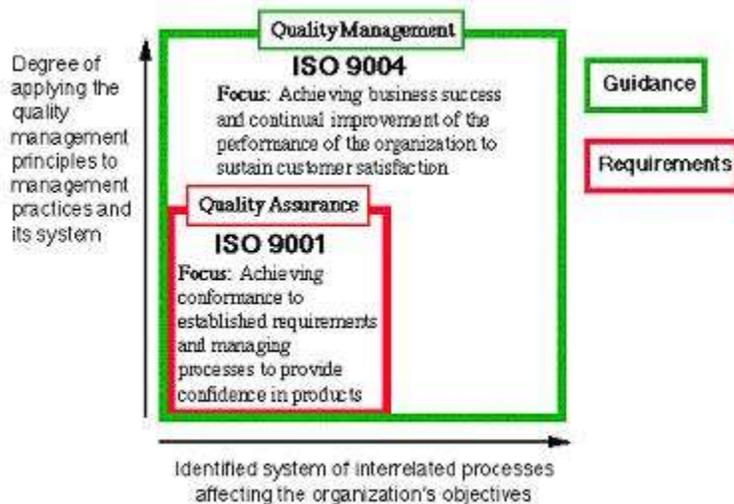
An example process is the Just in Time (JIT) scheme. Using JIT involves everyone within the organisation and everyone external to it, from suppliers to the delivery personnel. It is a method

of minimizing product and supply inventories by ordering materials as close as possible to the actual time of need. This reduces the cost of maintaining inventories of expensive items, such as newer biotechnology drugs. Precise timing and reliable suppliers are essential for this technique to work effectively.

Management

Management can be referred to as the corner stone of a successful Total Quality programme as they hold the seat of most influence upon those working for the company. They do not as such produce anything, but they get results through their employees. Their management style may come into play when trying to get the best from staff, whether it is through an authoritarian approach or a participation styled approach.

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 often fail because top management doesn't lead and get committed - instead it delegates and pays lip service. 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. If leadership roles in TQM aren't taken up by chief executive officers (CEO's) and their line senior managers nothing much in ways of changes will be implemented and any that are wont stand the test of time.



(Europe 2001)

Above a diagram showing more the emphasis on making the standards more streamlined and user friendly for businesses in the new series of revised standards, embracing ISO 9000, ISO 9001 and ISO 9004, and how the integration relates to management principles, practices and systems.

People

Employees do not decide on how they are to be managed, but when implementing change to management styles you cannot expect that all employees will pick it up and accept it because management sees the need to make the change. It is imperative that management keep

employees in the picture at all times when decisions are being made regarding TQM, which should encourage participation and help ease transition.

When the identification of the tools for a system to be used is complete it should be implemented that the right training is given to the right people. This is to emphasise the benefits of why their using them and how they are using them. Training given to the right people has been proven to minimise the misuse of the tools and techniques.

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.

Teamwork

Within an organisation it is important to emphasise the need of teamwork. TQM is an all in initiative, which requires everyone to work individually and as a team. This can be within the one department of a company or interdepartmental. Teams in a kaizen environment could develop the culture of total quality through building collective responsibility and develop a sense of ownership, provide additional communication channels between individuals, management, customers and suppliers, develop problem solving skills and facilitate awareness of quality improvement potential, leading to behavioural and attitude change. (Barrie G. Dale, 2007)

An initiative that works well within teamworking is quality circles. Within quality circles problems will only be solved if the team has developed effective relationships. They would tend to operate by consensus as the members work together to improve quality and quality control techniques.

Culture

Many (e.g., Hyde, 1992; Chaudron, 1992) have noted that TQM results in a radical change in the culture and the way of work in an organization. A fundamental factor is leadership, including philosophy, style, and behaviour. To make TQM an organisation wide initiative, it has to be rooted in the culture of the company. It needs to be aligned with human resource systems, including job design, selection processes, compensation and rewards, performance appraisal, and training and development. The culture requires quality in all aspects of the company's operations, with processes being done right the first time and defects and waste eradicated from operations.

“Firms with strong comprehensive culture implement highly the TQM elements of top management leadership, people, process, customer and supplier management. Firms with clan-driven culture implement highly the element of process management while firms with hierarchy-driven and weak comprehensive culture implement lowly to moderately all elements. A culture-based TQM implementation strategy is proposed.” (Koh Tas Yong, Mar 2008, Vol. 26 Issue 3)

The emerging business world

Within the emerging business world there are several elements that have become the norm now that may not have been a concern to organisations before. With the internet and consumers more willing to voice their opinion there are new elements to consider and implement TQM into. There has been an explosion in the consumer service industry, time has become more compressed with everything now seemingly available at the touch of your fingertips through the internet, companies are becoming more global orientated therefore less local and companies are integrating all these elements into their organisational structures.

Consumer service explosion

Within a company at any level an employee may have to deal with a consumer/customer, that is why TQM is important so that the employee is correctly tooled to deal with any situation.

As outlined in a case study of Vista Optics Limited listening to customers can provide a basis on where to go in business and what improvements can be made,

“To be honest we thought we did! It is only after a concerted effort in this area, driven again by the desire for excellence that we really began to listen to the “real voice” of the customer. As a result, we have brought out new products, discovered new customers, forged partnerships with some customers and know a lot more about their real needs - 99.2% of all orders received by 4.00pm are now shipped the same day, an improvement from ca.90% in 1997, whilst substantially reducing stock levels during the same period.” (Vista Optics Limited, 2000)

Feedback is an important element of catering to consumers, external indicators relate to consumer perceptions and product/service enhancement. Consumer surveys, external benchmarking and market reports are tools that can be used in assessments against future plans and/or roadmaps.

Time compression

“Supply chains compete, not companies” (Martin Christopher)

With the continual improvement in information technology access to information and requests made by consumers is happening at a faster rate than before. This is where if TQM is implemented at the core of an organisation and everyone is trained in maintaining and controlling quality of their work, when aiming to increase productivity total quality should be maintained.

“It is clearly recognized that the components included in the purchasing tools dimension of TBST (Time-based strategies and tactics) are closely associated with the broader family of tools, philosophies, and initiatives called total quality management (TQM) or continuous quality improvement (CQI).” (Carter, Vol.27 no.8 January 1)

When using JIT production everything relies on timing and reducing waste. Just-in-time is having the right part at the right place in the right amount at the right time. This technique shortens cycle times, decreases the amount of inventory that a company carries, leads to low work-in-process (WIP), and creates a flexible atmosphere for the type or amount of product that a

company would like to run and most of all streamlines work flow through a manufacturing facility.

Globalisation

Globalisation leads to many companies, especially in the manufacturing industry in the 1980's, to fall victim to the improved quality standards being exported by the Japanese. Being the initiators of the TQM system, the Japanese had the lead on the competition in improving their quality processes and systems. Globalisation brings risks due to which they are unlikely to survive in their present form without improving quality, competitiveness and management practices.

“With increasing globalization and global competition, quality management is becoming increasingly important to the leadership and management of all enterprises and organizations. Quality Management Principles provide understanding of and guidance on the application of quality management” (Europe 2001)

Benchmarking is a tool that could be used very effectively if an organisation finds itself under pressure from other organisations within a global market. Benchmarking is a means of establishing, quantifying and comparing one activity's performance against another. Within a very competitive market benchmarking may be very hard, functional/generic benchmarking would be a good option as they would be able to take the lessons learned in other 'best-in-class' organisations specific processes, in different industries.

Organisational Integration

Integration has been defined by some researchers as the quality of the state of collaboration among departments to achieve unity of effort demanded by the environment (Lawrence and Lorsch 1967, Galbraith 1994). In current organisations integration between departments isn't an “if it happens” situation it is a certainty. For total quality to be effectively initiated at its core, project teams would be made up from production staff all the way to the accounting staff. This is to ensure that all areas are covered when planning and setting conditions in work.

An important element of making integration work within an organisation is that measurement and feedback channels are clear and concise.

“Measurement, from a baseline, needs to be made continually against a series of key result indicators – internal and external – in order to provide encouragement that things are getting better (i.e. fact rather than opinion).” (Barrie G. Dale 2007)

Conclusion

Within the current environment and markets many companies are growing because of the information era or are being incorporated into already established global organisations, for example EA Inc. in October 2007 acquired BioWare (Austin, Texas) and Pandemic Studios (Brisbane, Australia) to be incorporated into its global operations.

“One thing that is not changing is the enormous advantage EA holds with the breadth of our portfolio and the quality of our people. Creative people are the core strength of our company...” (Electronic Arts Inc., 2007)

Total Quality Management is a mindset that needs to be established in an organisations core if it is to be successful. At all levels in all departments a mindset of quality management and continually improving should be primary, when expanding and developing as a whole organisation, new challenges would be dealt with in the most efficient way. But also at all levels tools and techniques should be clear to the users, goals and standards should be set out in an attainable fashion and everything should be traceable through feedback to analyse what happened and how it could be improved. Quality within the organisations processes and employees should also be recognised and promoted as a distinguishing factor.

When growing and bringing in new businesses, if TQM is lead by the top executives of an organisation, it inspires the other members of the organisation to incorporate into their daily work and self training. It is always a part of the continuous improvement (Kaizen) mindset, continue to improve through daily actions and quality takes care of itself.

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