Quality in the 21st Century – the Foundations

By Professors John Oakland & Les Porter

Introduction

In the last two decades, organisations have experienced a period of great change in their markets and operations. International and domestic competition has meant that many organisations have faced an increasingly turbulent and hostile environment. Customers have become more demanding, competition has become more intense and sophisticated and the pace of technological change has quickened. Regulators and consumer groups have also added to these pressures. As a result, many organisations have adopted a range of improvement approaches in response to these forces. We have seen the growing adoption of quality management systems standards such as ISO9000, the emergence of Total Quality Management (TQM), Business Process Engineering (BPR), business excellence, performance excellence, lean thinking, six sigma etc, etc. The battle weary could be excused from taking a rather jaundiced view of this ever-lengthening list of "quality" offers but, by and large, they share many of the principles and elements that are found in TQM.

This is the first in a series of six bi-monthly articles that explores the development of Total Quality Management and examines some of the basic concepts, tools and techniques. The series is based on John Oakland's latest books, *"TQM: text & cases, 3rd edit"* and *"Oakland on Quality Management"* (see Bibliography).

Competition and Reputation

Whatever type of organisation you work in – a hospital, a university, a bank, an insurance company, local government, an airline, a factory – competition is rife: competition for customers, for students, for patients, for resources, for funds. Any organisation basically competes on its reputation for quality, reliability, price and delivery and most people now recognise that quality is the key to achieving sustained competitive advantage. If you doubt that, just look at the way some organisations, even whole industries in certain countries, have used quality strategically to win customers, obtain business resources or funding, and be competitive. Reputations for poor quality last for a long time, and good or bad reputations can become national or international. Yet the management of quality can be learned and used to improve reputation.

Understanding Quality

TQM is founded on some fundamental principles and concepts:

The Voice of the Customer

Quality starts with understanding customer needs and ends when those needs are satisfied. Marketing processes establish the true requirements for the product or service. These must be communicated properly throughout the organisation in the form of specifications.

Excellent communications between customers and suppliers is the key to a total quality performance – the organisation must establish feedback systems to gather customer information. Appropriate research techniques should be used to

understand the “market” and keep close to customers and maintain the external perspective.

Case – BT Retail: *All quality programmes have at their centre a very clear focus on customers. Delivering customer satisfaction is the primary goal for BT Retail and the approach is inherently simple - listen to customers and respond to what they say. BT Retail has a wide range of methods for listening to their customers, ranging from market research to asking thousands of customers detailed questions about how they felt about a specific transaction with BT. From this data BT Retail has built quantitative models of the drivers of customer satisfaction which enable them to ensure that internal measures are aligned with what customers really want.*

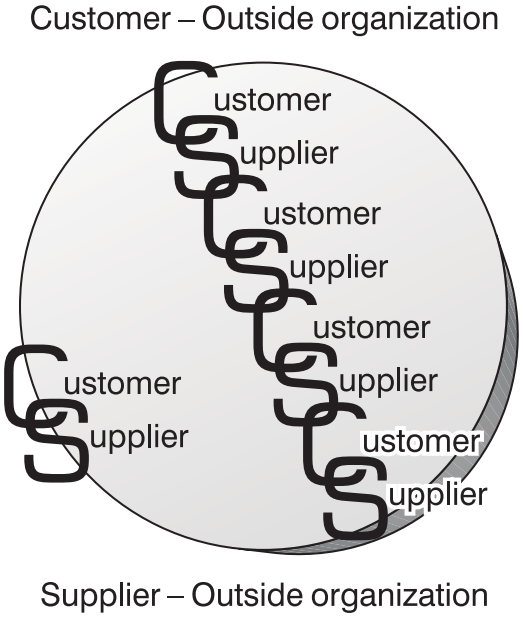
Quality, Reliability and Reputation

Quality is meeting the customer requirements, and this is not restricted to the functional characteristics of the product or service. Reliability is the ability of the product or service to continue to meet the customer requirements over time. Organisations ‘ delight’ the customer by consistently meeting customer requirements, and then achieve a reputation of ‘excellence’ and customer loyalty.

The Quality Chains

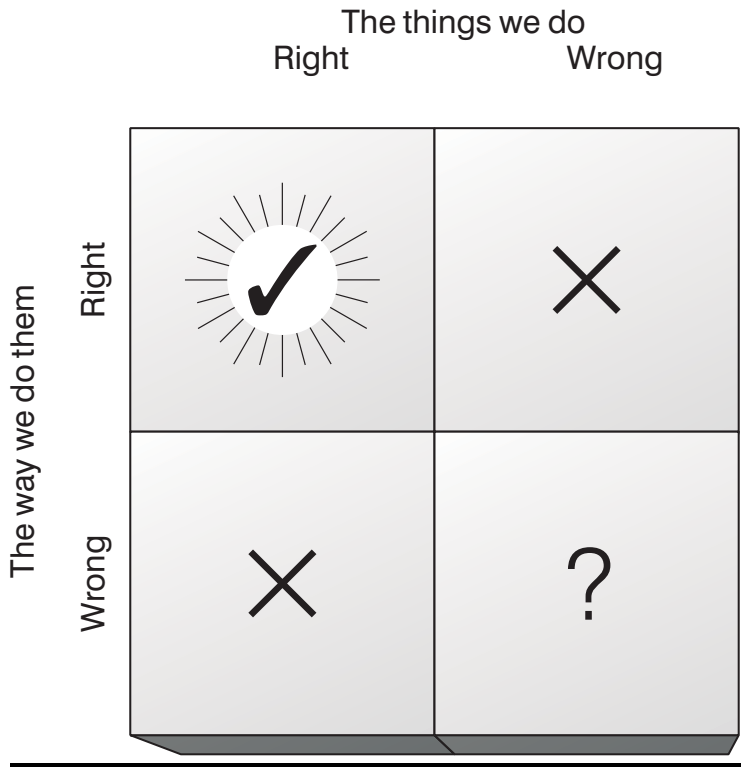
Throughout all organisations there are a series of internal suppliers and customers. These form the so-called ‘quality chains’, the core of ‘company-wide quality improvement’ (Figure 1). The internal customer/supplier relationships must be managed at every interface. Cut the chain and you meet a process. Measurement of process capability is vital part of managing all interfaces.

Figure 1 The Quality Chains



There are two distinct but interrelated aspects of quality - design and conformance to design. Quality of design is a measure of how well the product or service is designed to achieve the agreed requirements – doing the right things. Quality of conformance to design is the extent to which the product or service achieves the design – doing things right. It is important to differentiate between these two aspects when engaging in quality improvement. It may be salutary for organisations use the simple matrix of Figure 2 to assess how much time they spend doing the right things right!

Figure 2 How much time is spent doing the right things right?



Processes & Prevention Based Systems

Everything we do is a process, which is the transformation of a set of inputs into the desired outputs. In every organisation there are some core business processes that must be performed especially well if the mission and objectives are to be achieved.

The key to effective quality management is to develop sound prevention based systems that support the organisation's processes. Asking the question 'Have we done the job correctly or provided the service correctly?' should be replaced by asking 'Are we capable of doing the job correctly or providing the service correctly?' and 'Do we continue to do the job correctly or provide the service correctly? Asking the questions in the right order replaces a strategy of detection with one of prevention.

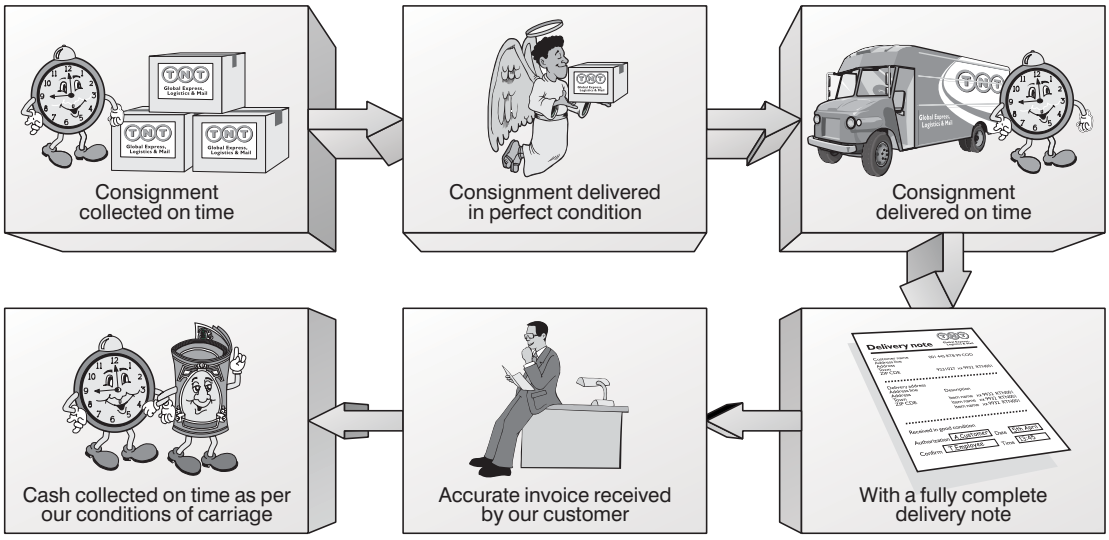
Inspection is not quality control. The latter is the employment of activities and techniques to achieve and maintain the quality of a product, process or service.
Quality assurance is the prevention of quality problems through planned and systematic activities.

Total Quality throughout the Organisation

Quality problems can seldom be pinned down to a single area in an organisation – there is usually and "end to end" dimension. All members of an organisation need to work together on organisation-wide quality improvement. The co-operation of everyone at every interface is necessary to achieve improvements in performance, which can only happen if the top management is really committed.

This approach manifests itself in complete understanding by everyone of the end-to-end TNT Express delivery process, described as the "perfect transaction" (Figure 3).

Figure 3 TNT Express Delivery Services: the perfect transaction process



Models and Frameworks for Total Quality Management

In the early 1980's when organizations in the West started to be seriously interested in quality and its management there were many attempts to construct lists and frameworks to help this process. This has been an ongoing process, which has seen the development of TQM into business or organisational excellence. These developments are summarised below:

The Early TQM Frameworks

There have been many attempts to construct lists and frameworks to help organizations understand how to implement good quality management. The "quality gurus" in America, Deming, Juran and Crosby, offered management fourteen points, ten steps and four absolutes (plus fourteen steps) respectively. These similar but different approaches may be compared using a number of factors, including definition of quality, degree of senior management responsibility and general approach

The understanding of quality developed and, in Europe and other parts of the world, the author's early TQM model, based on a customer/supplier chain core surrounded by systems, tools and teams, linked through culture, communications and commitment, gained wide usage.

Quality Award Frameworks

The late 1980's and early 1990's saw a global realisation of the strategic importance of quality and many countries established programmes to recognise quality and excellence. These initiatives followed the earlier example of Japan, which started to recognise quality practices with the launch by the Japanese Union of Scientist & Engineers (JUSE) of the Deming Prize in 1951. The structure and criteria for these award programmes elevated quality to a strategic level and resulted in some of the concepts of business excellence which we are familiar with today. The majority of these programs have undergone continuous improvement in framework design and award administration. Organisations pursuing an excellence strategy soon recognised that the award frameworks offered more than just a vehicle for recognition. The award frameworks were seen to be best-practice models for implementing excellence strategies, performing self-assessments, benchmarking and ultimately delivering improved performance.

The Deming Prize in Japan was the first formal quality award framework. The examination viewpoints include: top management leadership and strategies; TQM frameworks, concepts and values; QA and management systems; human resources; utilization of information, scientific methods; organizational powers; realization of corporate objectives.

The US Baldrige Award framework was the first major formal quality award framework in the West. The framework aims to promote performance excellence and improvement in competitiveness through a framework of seven categories which are used to assess organizations: leadership; strategic planning; customer and market focus; information and analysis; human resource focus; process management; business results. The Baldrige Award has arguably made one of the greatest contributions to the development of TQM and the practice of self-assessment in organisations in recent years through the development of a holistic performance excellence framework and a well-defined assessment process.

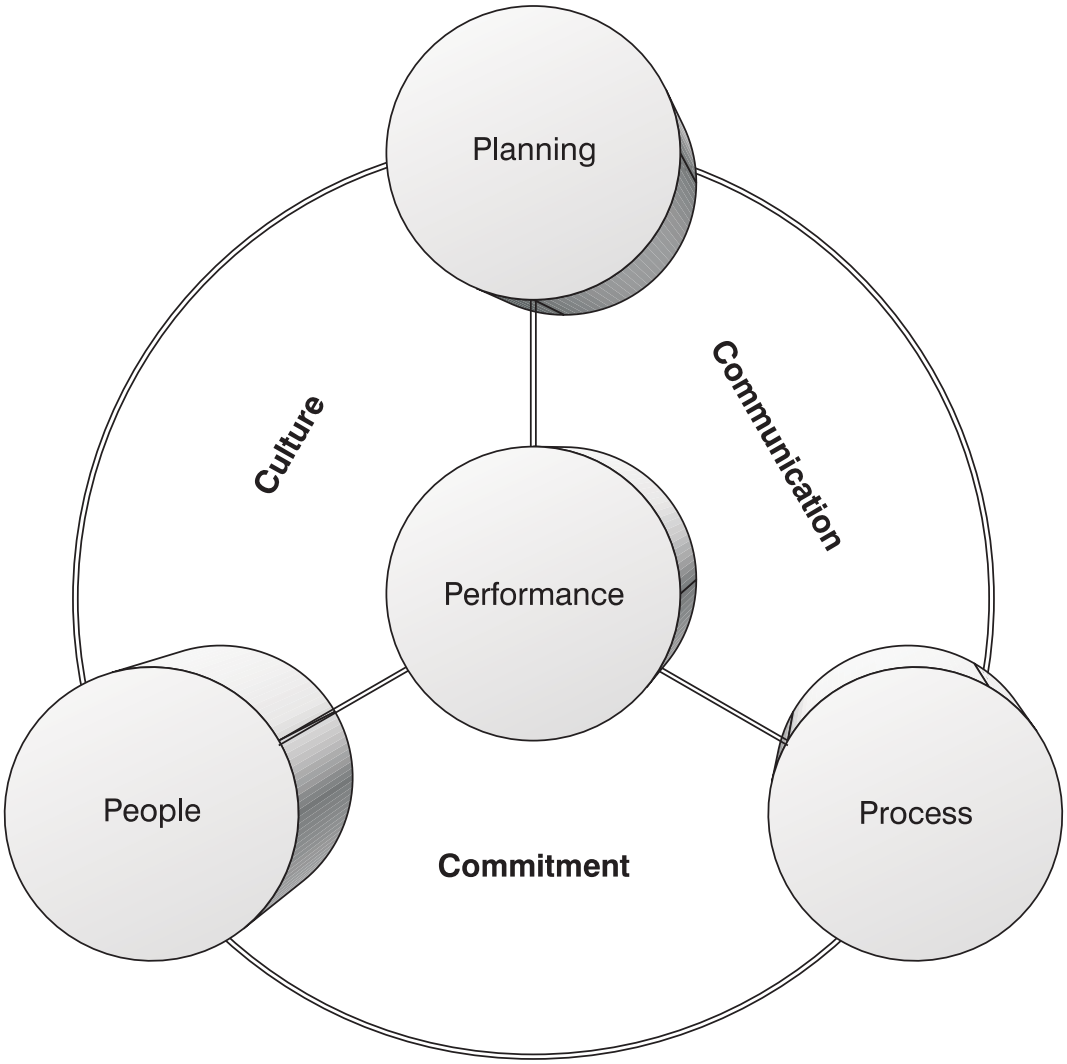
The European (EFQM) Excellence Model operates through a simple framework of performance improvement through involvement of people in improving processes. The full Excellence Model is a non-prescriptive framework for achieving good results – customers, people, society, key performance – through the enablers – leadership, policy and strategy, people, processes, partnerships and resources. The framework includes proposed weightings for assessment.

Case – Texas Instruments: *During the 1990s it became clear to TI that, while technological innovation was vital to future success, it was insufficient on its own. The company had to find a way to enable its customers to gain access to the innovations and be supported and satisfied in that process. The adoption of total quality was TI's chosen route to becoming more customer oriented, while retaining technological excellence. The journey began with the first concepts and has developed over time into the way people do business with customers and each other. Total quality has permeated all TI companies, thousands of people having received continuous training and it has become the TI way of life. The TQ journey took a major step forward in the mid 1990s when the EFQM model was adopted for Europe.*

A New Model for TQM

Whilst the award models provide frameworks for understanding quality and excellence, their non-prescriptive nature makes them unsuitable for bridging the quality gap – they are not implementation models. We present a new model for TQM that addresses the hard and soft issues of quality (Figure 4).

Figure 4 The new framework for Total Quality Management

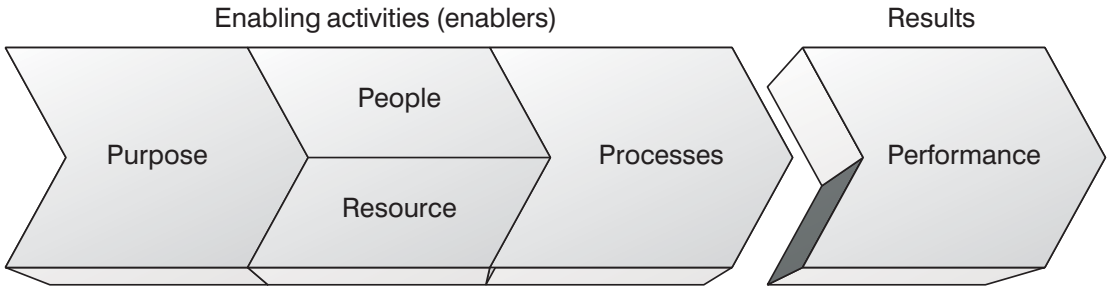


This shows how Performance may be improved through better Planning, and the management of People and the Processes in which they work. These four Ps are the keys to delivering quality products and services to customers, and form a structure of "hard management necessities" for the new simple TQM model. The next four articles will be about how to manage in a total quality way using this structure, and the final article will be about implementation.

The core of this new model needs to be surrounded by *Commitment* to quality and meeting the customer requirements, *Communication* of the quality message, and recognition of the need to change the *Culture* of most organisations to achieve total quality. These are the "soft foundations" which must encase the hard necessities of planning, people and processes.

Case – Shell Services: *Setting up a new global organisation is a challenge in itself. To do this by harmonising existing but different business operations across the world into a single, global organisation adds another level of complexity. Shell Services enabled such a transformation by putting in place a set of processes, systems and tools that became known as the Shell Services Quality Framework or SQF (Figure 5).*

Figure 5 The SQF – a simple but powerful construct



At the top level, the SQF is a simple but powerful construct consisting of five key chevrons. Four of these are enablers – namely Purpose, People, Resources and Processes. The fifth is the Results chevron, which focuses on tracking performance improvement as a result of implementing the framework.

Summary

In recent years quality has achieved a significant renaissance as organisations recognise that it is the key to achieving sustained long-term competitive advantage. Senior managers and quality professionals must not be afraid of using the Q-word. With the plethora of quality approaches on offer, it is important to revisit the fundamentals – TQM is the common pedigree for most of these approaches and offers a sound way of managing organisations in the 21st century.

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