

CAPÍTULO 6

QUALITY INITIATIVES: AN EVALUATION OF VALUE

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SUMMARY

This paper sets out the argument that despite the perceived relative lack of success with TQM, things have been learnt and changes made in the organisational processes, systems and culture. The key question examined is how this learning and these changes, as a form of deposits or remains, can be retained within the organisation so that they actually build up over time and eventually increase the velocity of the improvement process. The paper sets out positive arguments for this, although it is pointed out that more research is still needed. It is also suggested that this is the most likely way in which change actually happens within large complex organisations.

KEY WORDS

Quality Deposits, Total Quality Management, Organisational change.

INTRODUCTION

From the mid 1980s the subject of Total Quality Management (TQM) became an issue for European companies; a useful summary of its historical development is given by Cole (1998) and Martinez et al (1998). There are a number of approaches which can be used in the introduction of TQM, these include: (i) a consideration of TQM principles and practices in the form of a generic plan along

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with a set of guidelines; (ii) prescriptive step-by-step approaches; (iii) methods outlining the wisdom, philosophies and recommendations of the internationally respected experts on the subject; and (iv) non-prescriptive methods in the form of a framework or model. Despite the best efforts of business to introduce TQM there is evidence that it has not been as successfully as initially envisaged and in many circles it is regarded as a fallen star. Notwithstanding this lack of perceived success there is still considerable interest by organisations in using the principles and concepts of TQM, Excellence, Business Excellence, Business Improvement, Continuous Improvement, Quality Improvement or whatever the approach is termed to making an operation more effective and efficient.

Before European organisations started to introduce TQM they had previously employed a range of quality initiatives; quality circles and SPC being typical current examples during the 1980s. A quality initiative can be considered as a programme of activities with a defined plan and measurable objectives. The application of quality initiatives independent of, integrated with or as an alternative to TQM has continued through to the present day. Many of these quality initiatives require a formal approach to their introduction and application which, involves both cost and resources. A number of the initiatives have not achieved what their various protagonists have set out as likely benefits. This lack of achievement in relation to specific initiatives is well documented in the literature. A number of these initiatives have diminished into short living fads (i.e. ideas which suddenly surface and just as quickly disappear) and have failed to develop into a fit with business operation.

Despite this relative lack of success many of the initiatives/interventions have left positive deposits, in the form of changes in the organisational infrastructure processes, systems, procedures, culture, which when built-up in cumulative mode can potentially lead to an organisation managing in a total quality manner. The emphasis is on positive deposits, however it should not be overlooked that some of the quality initiatives/interventions, when implemented in an inadequate manner, have left behind a range of bad experiences. This paper examines the types of quality deposits left by a range of quality initiatives and discusses their combined contribution to TQM.

AN EXAMINATION OF TYPICAL QUALITY INITIATIVES

A pre-requisite of a quality initiative is usually some form of actual or perceived threat or crises to the business. A typical response to such a condition is to change the business by implementing what seems to be the most appropriate quality initiative.

What is a quality initiative and how do they differ from a quality management tool or technique? A single quality management tool may be described as a device which has a clear role and defined application; it is often narrow in its focus and can be and is usually used on its own. A quality management technique, on the

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other hand, has a wider application than a tool. There is also a need for more intellectual thought, skill, knowledge, understanding and training to use a technique in an effective and efficient manner. A technique may even be viewed as a collection of tools and its use may cause the need for a tool to be identified.

The distinguishing features of an initiative include: (i) it is claimed by its protagonists to lead to outstanding benefits on its implementation; (ii) some form of external network or support organisation are usually set up for its promotion; (iii) it requires a formal implementation approach; (iv) considerable interest is generated by management consultancies in developing packages to sell the initiative to organisations; and (v) it spawns people who become expert in the various intricacies and language surrounding the initiative.

The competitive threat posed by Japanese products started to emerge in the mid to late 1970s, first in America and then later in Europe. As a consequence many European organisations started to use the theme of quality as the means by which they could direct improvements in performance. The first initiative to emerge from this modern focus of organisational efforts on quality was quality circles and this is the starting point for the examination of deposits.

Quality Circles

In the West, quality circles were first introduced by the American firm of Lockheed in 1974. They found their way to Europe from the collaboration by Rolls Royce with Lockheed on the Tristar programme. Most European countries had bodies promoting quality circles. Considerable interest was displayed by a range of manufacturing and service organisations in quality circles between the late 1970s and mid 1980s, after which they faded from use in European organisations; the reasons for the lack of success is well documented by writers such as Hayward et al (1985) and Hill (1986).

Quality circles have left behind a number of positive deposits in organisations, including: awareness of the success factors for teams and teamwork and the associated pitfalls; clear roles identified for member, leader, facilitator and project sponsor; recognition of the importance of training and development of problem solving skills and competencies; recognition of latent employees ability; the involvement of employees in decision making; and reward and recognition systems for individuals and teams. There is little doubt that today quality circles live on in the bodies of other teams which organisations use to facilitate improvements within their business.

Statistical Process Control

The Ford Motor Company in the revision of its then Q-101 quality system standard to include evidence of process capabilities in the assessment of its own plants and those of suppliers helped re-launch interest in SPC. The application

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commenced in earnest by European companies in 1984. Today, SPC exhibits good usage across a range of different processes, and knowledge of the technique is widespread. SPC has now progressed to be a fit with the normal business activities of a organisation. However, far from the Ford Motor Company's belief in the mid 1980s that it would 'blitz' away quality problems there is evidence (e.g. Dale and Shaw (1991)) that the results achieved have been less than spectacular and the use of SPC is not as widespread as might be expected. An important facet of SPC is the need for a greater appreciation and understanding of process capability. Recently there has been renewed interest in developing process capability from a range of businesses.

The type of deposits left by SPC include: improved awareness of process variation and process capability; importance of a formal problem solving approach; the need to integrate the use of a variety of tools and techniques to effectively solve problems; the need to define relevant performance indicators for processes; improved understanding of issues relating to measurement; and visible display of performance data.

ISO 9000 Series

This ISO 9000 series of quality management system standards was first introduced in 1987 but owes much to the early defence standards. Van der Wiele (1998) in his work on the fad, fashion and fit path considers that the ISO 9000 Series is now a fit with the normal operating activities of an organisation.

It is true to say that no single quality initiative has generated as much debate and argument both for and against, and what it has and has not achieved as the ISO 9000 Series. Outside the debate about its value or otherwise the ISO 9000 Series has left certain positive deposits, including: improving the awareness and understanding of quality amongst all employees; the value of describing and documenting procedures; providing a clear specification of what is involved in a quality management system; and ensuring that an organisation has in place adequate controls over quality. In the main, the positive value of these deposits is related to the internal motivation for introducing and using the ISO 9000 Series.

Benchmarking

Benchmarking was popularised by the seminal work of Camp (1989). Whilst the concept of benchmarking products and services has been around for some considerable time the application of a structured method to seek out best practices is relatively new. From the well publicised experiences of Xerox many organisations have undertaken some form of benchmarking and many benchmarking clubs, centres and networks have been established.

The type of deposits put in place by benchmarking include: a breakout from insular thinking and practices; education of people that they first must understand

their own process before seeking ways, using external inspiration, to improve them; a culture of challenging status quo type thinking is generated; and improved understanding of breakthrough versus incremental improvements.

Business Process Re-Engineering (BPR)

BPR was popularised as a formal concept by the writings of Hammer (1990), Davenport and Short (1990), and Hammer and Champy (1993). It is put forward by them as the means which enables an organisation to take a radical and revolutionary look at the way it operates. However, many companies are not 'strong' enough to withstand the full impact of BPR as first envisaged. As a result several diluted versions of BPR have been developed, primarily by managerial consultants with a vested interest in providing expertise.

BPR has become popular in a short period of time, promising amazing results very quickly in relation to corporate and technological change, transformation and competitive pressures. Some writers regard it as a successor to TQM, making the point that, rather than continually improve a process, BPR challenges the need for a process. The BPR protagonists argue that it, rather than TQM, is the concept which enables an organisation to make the necessary step changes, originality and improvements to the business which will enable it to leapfrog the competition. However, other writers believe that BPR will soon fall out of favour with industrialists; the typical characteristics of a fad.

BPR has left some positive deposits typical of which are: challenges the need for a process; greater understanding of re-engineering and process redesign; the importance of improving the core processes of a business and the need for process innovation; and the understanding of radical versus incremental improvements.

Self-Assessment Against an Excellence Model

The publication of the Malcolm Baldrige National Quality Award (MBNQA) and European Foundation for Quality Management (EFQM) Models in 1987 and 1991 respectively have produced considerable interest in self-assessment methods. These Models comprise definitions of TQM in a broad sense and are holistic in design and nature. Organisations use the criteria of their chosen model to assist them in diagnosing the state of health of their improvement process and providing indicators of how to achieve business excellence. Self-assessment methods have become very accessible within the development of national and regional quality award networks. As such, companies with modest aspirations can gain experience of self-assessment at a local/regional level.

The type of deposits put in place by self-assessment against an Excellence Model (even when the self-assessment is undertaken only in relation to applying for an award) include: the importance of regular self-assessment to identify strength and areas for improvement; the importance of measuring improvement

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on a consistent basis in terms of numbers; the importance of understanding the direction and goals of improvement plans; the need to develop time scaled action plans to address the improvement opportunities; and evaluating which type of actions produce which effects.

Six Sigma

Six Sigma is based on the old quality ideas of understanding and eliminating causes of variation and designing for manufacture and assembly; it is a metric indicating how well a process performs. It has its roots way back in the 1920s – but it has been given a modern packaging to heighten its chances of success. The new approach was first developed at Motorola a decade and half or so ago, then further refined at Allied Signal and is now, possibly because of the pressure which General Electric is exerting both on the financial markets and on its suppliers, expanding very fast in the USA and even in Europe and Australia where advanced companies are using the approach. Six Sigma is about cutting back waste and involves investigating the fundamental design of products and services. The application involves breaking work down into discrete processes, and then measuring the defect rate of each process using a common metric. Six Sigma represents a reversal from the ‘soft’ side of quality which has persisted from the late 1980s to the more traditional ‘hard’ engineering focus. It should also mention that the skills required to apply Six Sigma in an effective manner are not in abundance in European organisations, resulting in a proliferation of training courses using sexy language such as ‘Black Belts’.

It is too early to say whether Six Sigma will become another fad. However, what can be said is that a number of features of fads as identified by van der Wiele (1998) are already in evidence with Six Sigma. For example, the bait of financial gains is well and truly cast.

The type of deposits arising from Six Sigma include: increased understanding of variation and its relation to defect levels and process yield; the relationship of process steps to defect rates; focus on production and service design; and improved understanding of the relationship between defect performance and financial performance.

DO QUALITY INITIATIVES PROVIDE A TOTAL QUALITY APPROACH?

There are a number of popular frameworks and models (e.g. Dale (2003)) which are used to present a picture of what is required in introducing TQM within an organisation. These frameworks are usually used as a means of presenting ideas, concepts and plans in a non-prescriptive manner.

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A number of the elements of such frameworks and models are covered by the deposits arising from quality initiatives. Also each initiative will have required a means of introducing it into the organisation and the establishment of some form of infrastructure to support and facilitate the initiative, providing at the very minimum: communication; education and training; teamwork; practice in using some form of problem solving methodology; and the motivation to improve. The processes involved in this will also cover more elements of the framework. It can therefore be argued that the right combinations of quality initiatives can lead an organisation to manage in a total quality manner.

Over time it has become apparent that, no matter how good the tool or technique, it will not lead to effective results unless it is carefully and professionally introduced into the organisation and unless the infrastructure is changed to facilitate and support the initiative. The deeper the tool or technique effects the organisation then the more important are these aspects. So quality circles and SPC did not involve deep changes within an organisation's structure and systems and so often managers paid little attention to the way in which such techniques were implemented. In contrast, and to a degree, benchmarking and certainly BPR and self-assessment against an Excellence Model demand major changes of an organisation – and will fail unless they are carefully introduced. Finally, Six Sigma maybe just a collection of old well tried tools and techniques but the modern approach includes very careful attention paid to how the programme is implemented and supported. The organisational change aspects of a modern Six Sigma drive are very far and deep reaching. These changes and supporting infrastructure all lend weight to the argument advanced in this paper that quality initiatives can help develop an organisation to manage in a total quality manner.

THE CASE FOR DEPOSITS

Useful deposits can be produced by most quality initiatives. The key to success is not to lose them. And the best way not to lose them is to ensure that, as far as possible, they become incorporated into the memory of the organisation.

Based on this premise it can be argued that the quality manager's job could be to ensure that although an initiative/intervention might be dying, the useful deposits are transferred to the organisation's memory. For example, even though the quality circles initiative dies out, problem solving and team working skills can still become part of introductory training course curriculum for all new employees. Or even though ISO 9001 has deteriorated into a mere formality, every major procedure must be described, documented and mapped and a quality management system must have a clear specification. Or despite the fact that the six sigma programme was stopped as a result of a cost cutting campaign, in future: every improvement project submitted for resource backing to senior management must contain estimates of predicted savings; and at the end of every improvement

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project, estimates of actual savings achieved must be made; at end of every project, other business units for whom the improvement might be relevant must be named and contacted and the best practices and learning experiences transferred.

If Quality Managers examine the so-called failed quality initiatives in this way then they can diagnose how effective their organisation has been in capitalising upon the positive deposits that have been left behind. They will see the degree to which these deposits have been identified and incorporated into the memory of the organisation, and hopefully they will see how they can improve this process of laying down deposits in the future.

In this paper the possible positive deposits left by quality initiatives have been stressed, of course there could also have been some negative deposits. The quality manager should be aware of this possibility. Since many quality initiatives are sold hard on the promise of results, many critics concentrate on the subsequent results – or lack of them. So negative deposits often primarily concern results variables and as such are likely to remain at the individual level and not be incorporated into the organisational memory. For example, ‘Quality Circles never achieved any major breakthroughs in profitability’. ‘There was no relation between self-assessment and profitability of the organisation’. ‘BPR incurred a considerable cost in money, time and anguish and yet never led to the gains promised’. Such negative learning might well be very powerful at the individual level. No individual feeling like this is likely to put up resources for such an initiative again.

So the negative deposits often concern the lack of results which although they may not enter the organisational memory can easily obscure any possible positive deposits resulting from the experience. Furthermore, they reinforce resistance to change behaviour. The learning from these positive deposits often sits in the process by which efforts were made to obtain the results. Good or bad results can be caused by many different factors. A promising quality initiative can be killed off by a multitude of factors out of an individual(s) sphere of influence – for example by changes in markets, in products, in legislation, in key staff, etc. Failure to obtain promised results is not always because a faulty process of implementation was being used. So the important factor is perhaps not so much the perceived success or failure of quality initiatives, but rather the identification of what might have been discovered in the process of trying to achieve the results. And then in its careful extraction and subsequent secure placement in the safety of the organisation’s memory bank. Once safely deposited there, it may pay dividends for years to come.

CONCLUSIONS

There is considerable evidence to indicate that TQM is not as successful as initially envisaged. European organisations, either with or without a formal TQM approach, have been using a range of quality initiatives from the mid 1970s. A number of these have gone the same way as a number of the formal TQM

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approaches and have fizzled out. It is considered that almost unbeknowing to the applicant organisations these initiatives have left behind positive deposits which, when built-up over a period of time, help to embed a continuous mentality into the organisation. In addition, the initiatives themselves, irrespective of whether or not they are simply fads and fade away, usually generate improvements and cost savings.

It can be argued that a series of unrelated quality initiatives, introduced over say a five year period, by various management teams or a response to several different threats or crisis can never be as effective as a structured process of continuous improvement. Whilst each quality initiative will generally provide improvements in their own right and contribute through the deposit mechanism outlined to an improved method of management, they will perhaps not provide the degree of benefit as the structured approach. However, in the reality of business the deposits mechanism might provide a more realistic perspective of quality improvement in modern businesses.

To what extent can an organisation choose to implement the quality initiatives discussed in this paper, as and when they so desire? To what degree does there have to be a certain sequence in their adoption? There is some evidence supporting the idea of a definite sequence (see Bertsch et al (1999)) but much work still needs to be done.

So more research work needs to be done as to which combination of quality initiatives, taking into account different organisational environments, structures and culture, produces the greatest effect in embedding a TQM approach into an organisation and thereby develop the necessary deep organisational changes, resulting in business performance improvement. If this motivation for change is lacking, then TQM will not develop into a 'fit' and in these companies and will quickly disappear to be followed by a new 'fad'.

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