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QUALITY INITIATIVE CHALLENGES: AUSTRALIA AND BRITIAN

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Abstract

Quality and performance in organisations have been closely associated in the management literature for over a quarter of a century. Many approaches advocated have varying degrees of success but none have entirely stood the test of time. This research reports on the incidence of innovative approaches to Quality in both Australia and Britain, the reasons behind their implementation, the ways in which they were undertaken and the success factors and the pitfalls encountered along the way. One hundred and twenty-nine Australian and one hundred and seventy-five British companies reported on why they did or did not introduce a new Quality initiative within the past five years. It is a comparative analysis which identifies trends, similarities and differences, and future directions of Quality in both countries. The paper concludes by identifying important lessons for senior management needing to make changes in this important aspect of any business.

Introduction

During the latter quarter of the 20th century quality movements were seen as the way forward for companies facing increasing global challenges and this recognition of the importance of achieving and maintaining much higher quality standards depended to a significant extent on the capabilities of the quality managers in terms of knowledge, skills, problem solving and teamwork (Goetsch and Davis, 2006). In such a dynamic business environment, “the challenge for the quality professional ... is to become a ‘change master’ rather than just being a quality manager” (Maguad, 2006, pp.200-201). The abilities now required of the quality manager go far beyond those of the

former role of chief inspector, reflecting the need to provide advice to managers who themselves have much broader responsibilities than in previous times (Addey, 2004, p.880). The necessity of innovation and rapid flexibility was predicted as resulting in an increased reliance on technology to monitor processes, anticipate problems and implement solutions (Conti *et al*, 2003; Adamson, 2005).

The actual route to achieving the all pervasiveness of quality throughout organisations has however been many and varied. Total quality management has been a banner under which many such initiatives were introduced but in more recent years this philosophy as an approach to tackling the most pressing problems of the twenty first century, has been called into question (Dale et al 2000, Dayton 2003, Rahman 2004). Dale for instance suggests that whilst many regard TQM as a fallen star, its replacement by the term excellence, as in the EFQM model, may be detracting from the fundamentals of quality management. Dayton suggests that the absence of senior management valuing and living the TQM process, coupled with organisational inflexibility and inertia providing an environment that weakened and eroded the foundations of TQM. Rahman on the other hand argues that the importance given to the all pervasive soft aspects TQM (i.e. the people dimension), has been overplayed in the context of a business environment which increasingly requires innovation to maintain competitive advantage rather than continuous improvement. Nevertheless, the underlying principles of TQM continue to be championed in the form of such approaches as the EFQM business excellence model, Six Sigma and Lean Sigma (Maguad 2006, Williams et al, 2006 and Green 2006).

The centrality of integration across the whole organisation as a core element of TQM continues to be stressed (Manglesdorf 1999). Further, beyond the boundaries of any organisation, other writers emphasise the importance of developing integration of quality management across the whole supply chain (Levy et al 1995, Kuei et al 2001, Casadesus and de Castro 2005). The importance of linking strategy and approaches to quality management has been another important theme in the quality literature, (Chapman et al 1997, Leonard and McAdam 2002, Kelemen 2003, Foster 2007). Various barriers to successful quality initiative implementation are also identified in the literature, like lack of commitment of upper level management (Soltani et al 2005), ineffective leadership and lack of employee involvement (Warwood and Roberts 2004), together with inadequate human resources development, inadequate resources for TQM, lack of key elements like leadership, planning for quality and customer focus (Sebastianelli and Tamimi 2003). The need for an appropriate culture continues to be an underlying principle in the quality literature (Gallear and Ghobadian 2004).

Thus it appears that faith in the soft aspects of TQM still pervade thinking on quality and this points to the continuing pivotal role of quality managers in maintaining the impetus toward continuous improvement through quality. Addey identifies no less than fourteen aspects to the role of the contemporary quality manager from researcher to strategist to teacher (2006). According to the US quality managers surveyed by Sebastianelli and Tamimi (2003), the key responsibilities of the quality manager include human resource developer, strategic planner, leader and market researcher. In a study of the roles of Knowledge Manager, perhaps the latest incarnation of quality manager, Adamson identifies aspects including those of entrepreneur, consultant and

technologist (2005), p.996). So pervasive is quality management through the modern organisation – being the responsibility of all staff – and so broad the role of the quality manager that it has been suggested that, “quality as an entity will be subsumed” and quality managers are likely to metamorphose into project managers or executive positions, if they are prepared to do so (Westcott, 2004, p.23). These developments mean that the role of the quality manager will not only remain central to organisational success (Goetsch and Davis, 2006), but will be dynamic and increasingly challenging for those who practise it.

The research reported in this paper, looks at the quality initiatives actually being undertaken in organisations in Australia and Britain, what is the impetus for change, how they are implemented and evaluated and the involvement of quality managers in these changes. This study arises from previous findings identified in the literature together with a series of researches by the authors on careers in technical occupations in Britain and Australia (Burcher et al. 2004, 2005, 2007, 2008). One of the groups of technical managers were quality managers and this research indicated that compared with production and operations managers and logistics managers, quality managers do not seem to be so much at the cutting edge of their field. In particular they displayed a limited knowledge of more recent approaches to quality management, like for instance Six Sigma.

Research methodology

The survey at the centre of this study is a collaborative initiative with Australian and British researchers to compare and contrast quality issues in their respective countries. From a sample of one thousand companies in both countries, 129 Australian companies' responses were received and entered into an SPSS database. These organisations were randomly selected from the JAS-ANZ list of ISO9000 companies. Sixty-five percent of the responses received were in the service industry. In Britain, of the 185 responses received, 175 were used in the following analysis. The samples were split between manufacturing and service organisations. The respondents were mainly Quality Managers (56%) but although the rest all had responsibility for quality, a variety of other titles were held. It was found that 88% of the Australian and 87% of the British companies have introduced a new quality initiative in the past five years.

Results

Of the 11% of Australian responses from organisations who have not introduced a new quality initiative in the past five years, the main reasons are:

- Most if not all are already certified to a ISO9001:2000 system
- Their current system is more than adequate to meet their needs and is regularly audited
- Are currently using a similar system to ISO 9001, such as HACCP, WQS standards, ESOS, AQTF and CRICOS

Their main reasons for continuing with their current approach include:

- More than satisfied with their current quality system
- Their companies are operating successfully thus indicating no reason to implement new initiatives.
- They are meeting industry standards and requirements
- Customer and client feedback has helped refine processes, not technology

Amongst the 13% of British companies who had not changed their approach, over half had not even considered doing so. Of the rest, they had considered or were currently considering an alternative approach but had not actually undertaken the change. The apparent lack of urgency on quality initiatives was reflected in their reasons for continuing with their present systems, was because they were seen as “working OK” (77%)

Undertaking Quality Initiatives

Turning to the companies who have undertaken the challenge of new quality initiatives, they range over quite a wide spectrum of possible approaches (See Table 1).

Table 1 A Comparison of Quality Initiatives Implemented between Australia and Britain (in percentages)

Type of Initiative	Australia	Britain
Zero defect	8%	6%
Quality Control (SPC)	6%	11%
Total Quality Management	10%	7%
Business Process Re-engineering	13%	12%
EFQM Business Excellence model	8%	12%
ISO 9000	60%	32%
Six Sigma	6%	18%
Other	20%	2%

It is apparent from the previous table that in Australia the majority of companies had just implemented ISO9000 and hence considered it to be the 'quality initiative' which was the focus of this survey. From the data above, 20% of Australian companies introduced other quality management initiatives and they included:

- ISO14001:2004 &AS4801
- Integrated Management System
- Quality and Environment Management System
- Innovation: Idea Network
- Lean manufacturing tools

- ISO 22000
- MRP11 Class, First Pass Quality
- Australian Business Excellence Framework
- SA 8000, OECD Corporate Gov, FMEA
- AQTF (Australian Quality Training Framework)
- CMMI (Capability, maturity model integration)
- Disability Support Certification and Service Standards
- ISO/TS 16949:2002 ()
- Various systems using intranet
- AS9120:2002 ()
- Product Certification
- IEC Product Certification

This long list indicates the variety available for companies to either update, or customise a system that suits their needs. It also suggests that there is no ‘one best flavour of the month’.

For the British study it was easier to categorise the approaches there under five main headings:

- 1 International and Industry Systems Standards (38%)
- 2 Early Quality Philosophies (30%)
- 3 Other Tool Based Approaches (23%)
- 4 Recent Quality Philosophies (22%)
- 5 Self Assessment Auditing Tools (12%)

The above categories encompass a variety of initiative with International and Industry Systems Standards covering ISO9000 and Industry Quality Systems, where standards are set from outside the organisation and accredited by outside bodies. The Early Quality Philosophies include TQM, BPR, Zero Defects and Integrated (In-company) Systems, where the quality gurus of the time advocated that quality was not just the concern of a quality department but was the responsibility of everyone in the organisation. Other Tool Based Approaches cover Quality control, Problem Solving and a Risk Based Approach. Here there is essentially a “pick and mix” approach e.g. SPC, which is not organisation wide. Recent Quality Philosophies cover both Six Sigma and Lean Sigma where responsibility for quality becomes organisation wide as in the Early Philosophies but with a system which signals more clearly the crucial role of leaders and project teams. Also a much wider range of tools and techniques are employed and improvement projects have to pass the hurdle of a cost benefit analysis before implementation. Self Assessment Auditing Tools like EFQM have elements in common with other organisation wide approaches but are specifically a measurement based technique to identify priorities for improvement based on the European Quality Award criteria. In other parts of the world the Malcolm Baldrige Award and the Deming Award may perform a similar role.

The Driving Force for Change

The impetus for implementing quality changes arose from two major sources, with the greatest influence coming from within the company (see Table 2).

Table 2 Impetus for Implementing Quality Changes in Australia and Britain

Source	Australia	Britain
Head Office Policy	36%	47%
In-company Individual/s	40%	46%
Customers	24%	7%

The Australian figures reveal that several decisions by companies are governed and regulated by company policy but rather more new initiatives were introduced by individual members of a company, holding a level of influence or authority when it comes to decision-making. Whilst a significant portion of this 40% were Managing Directors or Chief Executive Officers, there was also influence by some holding positions of expertise such as Design Managers, Operations Managers and role specific Quality Managers. For some of the smaller companies, the owner or proprietor was responsible for initiating the change.

In Britain, where in-company individuals were driving change, these were predominantly Quality Managers (46%) but board level appointees were also drivers of change in some companies. It would appear that customers are no longer a main driving force for change within quality, as they were a decade or so earlier in Britain, but in Australia customers continue to be an important driving force.

Impetus Events

There are many reasons that prompt change and the most common reason identified in this survey, in both Australia and Britain, was government regulation whereby certification is required in order to be compliant with the relevant system. Corrective Action was an equally important impetus event driving change in Britain, followed by customer feedback, annual review and customer requirements. Other reasons in the Australian responses include competition for contracts, supplier demand, consolidation, defects and/or errors with existing systems, standard upgrades, identified gaps, requirement for business proposals, company restructuring, global presence, commercial sustainability, international trends and opportunity for moving into new markets.

Funding

Of the Australian respondents only 43% had a dedicated budget for their initiative and the British reported that a dedicated budget to facilitate the implementation occurred in 46% of instances. There could be several reasons for this – quality management is a relatively new concept to the organisation or there is no precedent for budgetary consideration or they could be a small organisation that does not break down their costs into specific categories. Either way, this finding suggests a reason for an organisation's reluctance to engage in quality initiatives or it may have been a contributing factor in unsuccessful attempts to implement in the past.

This line of thinking is further supported by the percentage of organisations that did not undertake a cost benefit analysis prior to implementing a quality initiative as a staggering 64% of companies in Australia and in Britain did not. These companies were apparently relying upon intuitive judgement to justify their expenditure.

Unless budgeted and planned, introducing new ideas, be that processes or software, can be doomed to failure as the costs of implementing (financially and socially) far out way those expected, which can often overshadow the long term benefits of the original initiative. Costs can blow out of control as a result of training requirements, loss of productivity and teething technological problems. Therefore organisations need to factor in some contingencies prior to introducing any new initiative.

Implementation

Another aspect of successful implementation of a quality initiative appears to have been considered clearly in the majority of companies studied with 64% of respondents in Australia and 80% of respondents in Britain confirming that an implementation team had been formed prior to a quality initiative being introduced.

How a quality initiative affected each organisation varied, in both countries. In some cases, not all departments or all staff were involved. This would not be considered uncommon in a large organisation. It would be more difficult however, not to involve all parties in an organisation with less than 50 staff. Also in service dominant organisations wider staff involvement is required to ensure service delivery consistency and the maintenance of brand image. This is not to say that

manufacturing organisations do not have the same level of responsibility to their customer however, their technological component means that quality often relies more heavily on systems and software although in say a sales department improvements in interpersonal aspects of service delivery are still central.

The results on how long it took to implement a quality initiative varied between countries and across the organisations, as indicated in Table 3. It appears that Australian organisations are prepared to take longer to implement their changes than is the case for British companies. This result may be influenced by the proportion of the Australian companies who were implementing ISO 9000 which can be a more time consuming system than some of the others cited by respondents.

Table 3 Time from Approval to Full Implementation of New Initiatives in Australian and British Organisations

Time for Implementation	Australia	Britain
1-6 months	24	37
7-12 months	34	37
13-24 months	31	28
Over 24 months	11	5

Post Implementation Evaluation

Respondents were asked whether they undertook a post implementation evaluation.

In Australia 70%, and, in Britain 76% of the organisations stated 'yes'. Some of the factors used in an evaluation in the Australian organisations included:

- External Audits & Client Satisfaction & Safety, Environmental Performance
- As part of ISO9001-2 "Management Review
- External Accreditation
- Internal Efficiency
- Audits of Quality Management System
- Staff Satisfaction
- Management Oversight
- Effectiveness of quality system

In the British organisations the main factors utilised were:

- Service Level Improvement
- Quality Defects
- Cost savings
- Process Improvement

The success of the quality initiative for each organisation varied slightly, however most were more than satisfied with the implementation and subsequent roll out of the initiative. In both countries most rated the success 7 or 8 out of a possible 10.

Companies were also asked if they had company wide measures of quality and 75% in Australia and 91% in Britain claimed that they did. Key performance indicators, followed by customer complaints, parts per million defects, delivery performance and customer satisfaction, were the major measures used in the British companies. The specific list of measures cited in the Australian companies included, but was not limited to:

- Cost for customers. Meant that errors have occurred commercially
- We have negative & positive performance measures
- Quantify feedback & Quantify orders shipped complete within requisite time
- Integral part of ISO9001 “Non Conformances & Corrective Action” and KPI as a quality objective/continuous improvement
- Data Reports, Audits
- Customer Complaint, job performed to standard, new clients attracted
- Underdevelopment of performance and risk management KPI’s, Standardised audits
- Statistical Analysis
- Internal & external audits, corrective actions, customer comments
- Management & staff meeting as a part of the regular reviews
- Lead time, productivity, amount of rework, minimum written stock, accuracy of delivery and on-line delivery
- First pass quality (first sample to lab), final quality, rework level, yield, discard
- Service response time, employee performance reviews completed, spare parts availability, repairs cycle time, revenue, customer acceptancy
- Checklists, internal audits

- Survey completed with all stakeholders annually. Monthly report completed by Quality Management Coordinator
- Balanced scorecard – customer satisfaction, issue logs, attrition
- Operator involvement through visual & hourly inspection – set parameters

The three main difficulties for an organisation when implementing quality initiatives produced some common responses. These are not too dissimilar to the responses from organisations who have not introduced a quality initiative in the last five years.

In Australia they include;

- Communication
- Organisational inertia – why change?
- Commitment

In Britain commitment was singled out as the most significant factor. Without the motivation to make a success of change, all the resources thrown behind it will be to no avail.

Another possible source of problems could be continually responding to customer feedback or because an organisation that is relatively young and still discovering the most suitable initiatives to meet their needs.

Implications for Management

The research reported here has presented some of the challenges facing organisations when undertaking new quality initiatives. Perhaps the most encouraging point to be made is that the vast majority of the organisations studied had undertaken some form of quality change during the last five years. This is an important indicator that

“quality is not dead”, i.e. it is not a passing fad, a problem swept “under the carpet” or simply taken for granted but is still a significant challenge for both manufacturing and service organisations working in an increasingly competitive environment.

For a select few, more than one system was implemented in the five year period.

Initially it can be assumed that to implement more than one quality system in such a short period could indicate fundamental flaws in business operations however, that is not necessarily the case. For example, in the service industry, consumer standards change constantly, primarily for competitive reasons or a change in consumer demand and/or expectation. It is crucial for organisations to stay abreast of these standards as reputation, and a good one at that, is the key to that organisation’s success. Likewise with manufacturing, but the distinct difference is that competition can be the deciding factor determining which organisation can sustain the constant pressure to perform and deliver a product in the knowledge that should they lose such momentum, there is rarely an opportunity to bounce back as there are several other organisations waiting for the opportunity to shine.

When it came to the difficulties organisations came across when implementing quality initiatives, a consensus was apparent when it came to engaging staff. Certainly getting people “on board” with any change can take time but another important factor is providing sufficient training to give all staff the confidence to adopt new ways.

This does appear to have been a somewhat neglected area with these organisations. To engage a team in the belief that they are learning new skills for the benefit of themselves, as much as for the organisation is the challenge. It is imperative to engage them early to avoid alienation, one of the first signs of resistance.

Finding a balance between systems implementation and organisational change is the most challenging aspect to an organisation's ability to remain competitive and to its ultimate success. Change associated with systems implementation is quantifiable, as are the indicators used for quality assessment and the identification of a quality system that is suitable for an organisation. However, measuring change within an organisation that involves the key asset being its people, is far less predictable yet the responses to this question were in fact the least surprising and in line with the challenges faced by all organisations regardless of the degree of change they are trying to implement.

Time was also a major challenge and closely aligned with resources. Implementing new software is often, if not always, in addition to an organisation's existing expectations of their staff. To demand more and successfully engage employees, an organisation will find it is having to 'sell' the idea to their teams in order to implement change effectively and most importantly efficiently with minimal disruption. Prioritisation on all fronts from all parties is required to ensure maximum efficiency. This could mean putting a hold on current projects, redistributing resources to accommodate changed priorities which are creating gaps and resentment in other areas of the business.

Despite the concerns and the obvious challenges facing organisations when they implement change at any level, those who have adopted the traditional approach to change do appear to be more satisfied with the results than those who have taken a seemingly more progressive path by adopting the latest thinking on quality. This

could be seen as an indication that radical ways towards improving quality do not always deliver the expected returns, at least in the short term. Ideally it should be the goal of the company to successfully engage their staff in a collaborative way and harness thought processes, ideas, previously unidentified skills or take and maximise the benefits change has to offer. This is no easy task when there are so many variations to a situation and/or compromises required. Whatever path taken, sufficient resources need to be available to gain commitment from staff and to avoid an over hasty and less beneficial outcome.

Conclusion

This comparative study has shown many similarities between the two countries in the extent to which and aspects of the ways in which quality initiatives have been approached. The proportion of organisations in both countries that are actively undertaking new quality initiative is similar, as is the impetus to change factors and the barriers to successful implementation, all of which were identified in the two samples. The main differences between organisations in the two countries lie in the type of initiative undertaken, with a preponderance of ISO 9000 in Australia but also much wider choice of approaches undertaken there. There is however a low take up of one of the more recent globally adopted initiatives, Six Sigma, which was lowest in the case of Australia. This is perhaps a reflection of the greater emphasis on system standards in Australia. Also there seems to be a greater will to complete new initiatives within a tight time-frame in Britain. Perhaps the most worrying aspect of the findings however, is the lack of a dedicated budget to facilitate changes in quality approaches in both countries, which reflects a continuing lack of serious commitment

amongst senior management also a lack of influence at senior levels amongst quality managers to redress this situation.

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