

An Investigation into the Rhetoric and Reality of Well-Trodden TQM Assumptions: Some Qualitative Evidence of Current Practice

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Abstract. The aim of this paper is two-fold: first, to empirically examine the degree of consistency between senior management's orientations/actions toward TQM and the underlying precepts of TQM; and second, to explain how senior management's orientations toward TQM affects middle and first-line managers' attitudes and orientations toward TQM. In doing so, a qualitative investigation in the form of multiple case studies is performed, given that there is a relative dearth of evidence on how an inappropriate approach to the uptake and management of TQM initiatives might give rise to a number of contradictions and tensions, and in the end TQM efforts considered to be failure. The data reveal that the (in)consistency between management's orientations and underlying assumptions of TQM is the major predictor when trying to explain the effectiveness of a TQM programme.

Keywords: Total Quality Management, Managing TQM, Case Study.

1. Introduction

Analyzing various widely cited reasons for TQM failure, one common theme emerges. It would appear that TQM is all about (senior) management in such a way that not only will their role and commitment result in credibility within organisation for the concept, assure continuity and establish longevity ([9], p. 21) but also by so doing enable other managerial levels and shopfloor employees to achieve their goals. [13]'s, [21]'s and [15] call for the primacy of senior management's role in successful implementation of TQM signified the assumption that there exists a linear correlation between senior management's orientations and attitudes toward TQM and the expected outcomes of TQM. Despite the attention paid by TQM gurus and other organisational scholars in the popular quality literature, relatively little work has been devoted toward a systematic understanding of the impact of top management's orientations toward TQM on middle and first-line managers' attitudes toward TQM, and on the effectiveness of TQM programmes. This paper aims at addressing this issue by setting out to empirically (i.e. case study) answer the following questions: To what extent, is management's orientations toward TQM consistent with the underlying assumptions of TQM? In the presence of any (in)consistency, (i) what would be the implications for middle and first-line managers? and (ii) for effectiveness of TQM programmes?

2. Methodological Approach

The research approach adopted for the present study conforms to qualitative research through a multiple case study design. Qualitative research in general and case studies in particular are appropriate when studying the impact of management intervention in managing organisational initiatives, since boundaries between the phenomena and their contexts are not obvious (see [40]). To be considered for inclusion in the sample of case studies, an organisation had to conform to several criteria, namely: stability of the senior management position (see [13]), experience with TQM implementation (see [18]), and existence of a separate quality management department with its own vice-president (VP) (see [7]). As a result, four cases in three sectors were chosen from a sample of membership organisations of one of the national partners of European Foundation for Quality Management (EFQM) in the UK: two US-owned private companies, a publicly-owned, and a voluntary sector organisation. Data collection was then undertaken using a semi-structured interview technique. In order to represent a diverse cross-section of informants, the interviewees

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were selected according to three variables: department, role in the uptake of TQM programmes, and rank ([35], p. 183; [12]).

To sift through the large volumes of data with relative ease in a systematic fashion, the data were content analysed (see [17]; [22]; [36]). For [36], content analysis is a useful technique for allowing the researcher(s) to discover and describe the focus of individual, group, institutional, or social attention. It also allows inferences to be made which can then be corroborated using other methods of data collection [31]. This technique relies on coding and categorising of the data. Here, of the two approaches to coding data (i.e. emergent and a priori coding), emergent coding was applied to establish the categories. Moreover, the steps recommended by [19] were taken into account. This, in turn, has resulted in a 95% (0.8 for Cohen’s Kappa) agreement or level of reliability (see [6]). Following the above procedures and content analysis of the interview data, as Table I reveals, three main categories as well as six sub-categories of data were identified:

Table. 1: Specified characteristics of the interviewees’ responses: main and sub-categories of data

Main categories	Sub-categories	
1. Management’s rationale for pursuing TQM	1.1 Inspection	1.2 Prevention
2. The nature of managing TQM	2.1 Reactive	2.2 Proactive
3. Management responsibility	3.1 Tools and techniques	3.2 Motivation and support

3. Qualitative Analysis of the Research Findings

3.1. The Rationale for the Uptake of Quality Initiatives: Inspection or Prevention?

In the two US-owned companies, it was evident that a great deal of quality efforts went into shaping an organisation-wide quality culture. However, in the interviews with managers at the Aerospace and Electronics two contentious issues were identified. First, with clear goals and different system-oriented techniques for continuous controlling of operations, middle and first line managers reported handling quality-related issues in a cost-effective way. Second, senior managers demonstrated a more tendency to implement detective actions as opposed to preventive. Other senior manager commented, “We have had such corrective arrangements and frequent use of detection in place to monitor improvement in rejection rates for many years”. A senior manager at Aerospace talked about several inspection teams which they had established to identify and drive process improvements for several years. In fact, these statements indicated a detective approach at Electronics and to a lesser extent at Aerospace. They also implied that quality efforts did not result in generating satisfactory preventive actions related to product defects and associated process issues in the long term. This approach is consistent with the operation’s view ([26]) which regards quality as consistent conformance to customers’ expectations – not perception.

In respect of the Voluntary and Education cases, there was marked disparities between senior management’s perception of quality approach and those of middle and first line management. While senior management was enthusiastic about adoption of TQM programmes, there were much fewer mentions of its reality and existence by middle and particularly first line managers. Comments such as “We wait to see the frequency of customers’ complaints”, and “We always take appropriate actions to deal with customers’ complaints” were indicative of their approach to managing quality. Clearly, then, such late detection of mistakes can be referred to as inspection/detection approach. This approach, in turn, coincided with a lack of mentions of TQM effectiveness. Indeed, the impact of TQM initiatives was not as powerful or pervasive as it was initially expected in the two cases.

3.2. Managing TQM Initiatives: Reactive or Proactive?

While TQM presented top management with certain, mainly long-term, opportunities, and that the top managers were aware of the long-term benefits of it, there were a number of constraints that hindered top management to be more proactive in managing TQM initiatives. The following statement highlights the barriers felt by many of them: We [top managers] have to show evidence of our efficiency and effectiveness during the first couple of years of our appointments. [Top manager – Aerospace]

Other middle and first line managers from Voluntary and Education highlighted a lack of visible engagement of their top management in handling quality-related issues. Accordingly, top management

support and involvement appeared to be only when the impact of their disengagement would likely damage their status. Clearly, then, there was considerable disquiet among top, middle and first line management. While middle and first line managers did lend top management considerable support in various stages of TQM implementation, they had no voice in proactively handling the work-related problems that they experienced. Indeed, a proactive top manager should constantly work closely with other levels of management to establish a continuous improvement culture. Consistent with [35]’s findings, this type of support to and engagement in the TQM initiatives can be interpreted as an inactive, laissez faire approach to leadership. This is somehow different from [35]’s findings in which the authors attributed such behaviour to the middle managers – as opposed to our study which related this to the reactive approach from the top (see also [1]).

There was also the concern among middle and first line managers that there had not been a gradual or step-by-step approach to the uptake of TQM initiatives. For example, in the Voluntary and Education cases, the organisations initially adopted the EFQM business excellence model with quality improvement efforts focusing on a range of soft and hard issues related to a total quality system. Middle managers, in admitting of their concern for the way in which the TQM initiatives had initially been introduced, were worried that their TQM efforts might not last indefinitely and fulfil its promises. Further analysis of the interviewees’ responses highlighted two more fundamental flaws in the reactive thinking associated with the uptake of TQM. First, it seemed that the two cases did not have clear criteria against which TQM initiatives could be adopted. Second, the uptake of TQM was therefore not planned. These two issues overlap in some respects with the idea of emergent change as opposed to planned change. However, our evidence indicated a lack of understanding among top management that the uptake of TQM should be regarded, first, as a process that can be facilitated by perceptive and insightful planning and analysis and well crafted, sensitive implementation phases, while acknowledging that it can never be fully isolated from the effects of serendipity, uncertainty and chance [11].

3.3. Management Responsibility: Providing Tools and Techniques or Motivation and Support?

The majority of middle and first line managers in all four cases strongly indicated that their top management commitment to delegate authority to first line managers and engage employees had lessened over recent years. By implication, the evidence suggests that the hard statistical approach is probably the most popular path for improving operations in the case studies organisations. At the Education case, a first line manager explained, “Since the adoption of TQM, the main changes I had observed were that I learned some new techniques and therefore had to work harder and harder”. It does therefore appear that a short-term or quick-fix approach to managing TQM and a cost-benefit equation to its application from the top, perhaps combined with using tools and techniques to get job done at lower cost, have affected adversely the substantive outcomes of TQM. However, the need to consider soft people-based approaches to quality improvement was most apparent and needed by middle and first line managers. Clearly, then, the four cases (in particular Voluntary and Education) underestimated both the extent and the seriousness of the ‘soft’ people-based approaches to managing quality.

This is by no means a trivial issue. The analysis of interviewees’ responses highlighted two related concerns. First, there were few indications of continual commitment from senior management to support and motivate employees. Second, the source of variability in senior management support and commitment appeared to lie in their mindset, concerning what was required of them and of employees as paradigms of organisational effectiveness changed over time (see [32]). In the two US-owned cases, top executives talked about the conditions of instability and heightened international competition; and in the UK-owned organisations, of attracting funds from government to secure long-term survival (the Voluntary case), and to overcome the problems of low effectiveness (the Education case) (see [8]).

4. Conclusions and Implications for Future Research

To be successful, the data revealed that senior management’s orientations for managing TQM initiatives had to reflect the need of both organisation and customers. The evidence presented here supports [4]’s, [23]’s,

[16]’s, [20]’s and [27]’s suggestions that management of TQM initiatives should reconcile these apparently opposing perspectives of operation’s and customer’s views of quality. Failing to do so, as our case study evidence revealed, might serve to obscure all other quality improvement efforts in the organisation. As we saw from our case studies evidence, it was paradoxical that when senior management themselves came to see TQM initiatives as a management by prevention, they sought to establish more detection and inspection forms of managing quality and expected their subordinates (both middle and first line managers) to do so. This analysis has some obvious affinities with [5] and [35]’s findings which delineated various orientations that top management can take toward quality improvement initiatives: defensive and tactical orientations versus developmental orientation. In respect of our case study evidence, defensive and tactical orientations appeared to characterise the management of TQM in Voluntary and Education cases. This orientation tends to be short-term oriented, lacking long-term planning and vision, and based only on reactions to current customer needs. This, in turn, conforms to ‘an inspection approach to quality’ and ‘reactive management’ – the first and second themes of this paper. In the light of the aforementioned findings, there is a need to extend our current study in order to examine the conditions under which management are currently managing TQM programmes.

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6. References

- [1] M. B. Bass. *Leadership and Performance beyond Expectations*. New York : Free Press, 1985.
- [2] S. Becker. TQM does work: Ten reasons why misguided efforts fail. *Manage. Rev.* 1993, **82** (5): 30-34.
- [3] W. Bennis. The leadership advantage, *Leader to Leader*, 1999, **12**: 12.
- [4] H. T. Berry. *Managing the Total Quality Transformation*. New York: McGraw-Hill, 1991.
- [5] Y. T. Choi, and C. O. Behling. Top managers and TQM success: One more look after all these years. *Acad. Manage. Exec.* 1997, **11** (1): 37-47.
- [6] J. Cohen. A coefficient of agreement for nominal scales. *Educ. Psychol. Meas.* 1960, **20**: 37- 46.
- [7] B. P. Crosby. *Quality is Free: The Art of Making Quality Certain*. New York: New American Library, 1979.
- [8] I. Cunningham. Human resource management in the voluntary sector: Challenges and opportunities. *Public Money Manage.* 1999, **19** (April-June): 19-25.
- [9] G. B. Dale, and L. C. Cooper. Introducing TQM: The role of senior management. *Manage. Dec.* 1994, **32** (1): 20–26.
- [10] P. Dawson, and J. Webb. New production arrangements: The totally flexible cage?. *Work. Employ. Soc.* 1989, **3**: 221 – 238.
- [11] D. S.J. N. Dawson. *Analysing Organisations*. Hampshire: Macmillan, 1996.
- [12] W. J. Dean, and E. D. Bowen. Management theory and total quality: Improving research and practice through theory development. *Acad. Manage. Rev.* 1994, **19** (3): 392-418.
- [13] E. W. Deming. *Out of the Crisis*. Cambridge: Massachusetts Institute of Technology, Centre for Advanced Engineering Study, 1986.
- [14] J. K. Dooley, and F. R. Flor. Perceptions of success and failure in TQM. *J. Qual. Manage.* 1998, **3** (2): 157-174.
- [15] V. A. Feigenbaum. *Total Quality Control*, 3rd ed., New York: McGraw-Hill, 1983.
- [16] K. Ferdows, and A. De Meyer. Lasting improvements in manufacturing performance: In search of a new theory. *J. Operat. Manage.* 1990, **9** (2): 168-184.
- [17] GAO (U.S. General Accounting Office). *Content Analysis: A Methodology for Structuring and Analyzing Written Material*. Washington, D.C.: GAO/PEMD-10.3.1, 1996.
- [18] A. D. Garvin. *Managing Quality: the Strategic and Competitive Edge*. New York: Free Press, 1988.

- [19] W. Haney, M. Russell, C. Gulek, and E. Fierros. Drawing on education: Using student drawings to promote middle school improvement. *Schools in the Mid.* 1998, 7(3): 38- 43.
- [20] T. Hill. *Operations Management*, 2nd ed., New York: Palgrave MacMillan, 2005.
- [21] M. J. Juran. *Juran on Leadership for Quality*. New York: Free Press, 1989.
- [22] K. Krippendorff. *Content analysis: An introduction to its methodology*. Beverly Hills, CA: Sage, 1980.
- [23] A. Parasuraman, A. V. Zeithaml, and L. L. Berry. A conceptual model of service quality and its implications for future research. *J. Mark.* 1985, 49 (4): 41-50.
- [24] C. T. Powell. Total Quality Management as competitive advantage: a review and empirical study. *Strategic Manage. J.* 1995, 16 (1): 15-37.
- [25] S. B. Sitkin, M. K. Sutcliffe, and G. R. Schroeder. Distinguishing control from learning in total quality management: A contingency perspective. *Acad. Manage. Rev.* 1994, 19 (3): 537–564.
- [26] N. Slack, S. Chambers, and R. Johnston. *Operations Management*, 5th ed., Essex: Financial Times Prentice Hall, 2007.
- [27] N. Slack, S. Chambers, R. Johnston, and A. Betts. *Operations and Process Management*. Essex : FT Prentice Hall, 2006.
- [28] E. Soltani, R. van der Meer, and M. T. Williams. Challenges Posed to Performance Management by TQM Gurus: Contributions of Individual Employees Versus Systems-level Features. *Total Qual. Manage.* 2004, 15 (8): 1069-1091.
- [29] E. Soltani, R. van der Meer, M. T. Williams, and P. Lai. The compatibility of performance appraisal systems with TQM principles – Evidence from current practice. *Int. J. Operat. Product. Manage.* 2006, 26 (1): 92-112.
- [30] R. Sousa, and A. C. Voss. Quality management revisited: A reflective review and agenda for future research. *J. Operat. Manage.* 2002, 20 (1): 91-109.
- [31] S. Stemler. An overview of content analysis. *Practical Assessment, Research & Evaluation*, 7(17) Retrieved March 29, 2006 from <http://PAREonline.net/getvn.asp?v=7&n=17>, 2001.
- [32] J. Storey. *Development in The Management of Human Resources*. Oxford: Blackwell, 1992.
- [33] J. Storey. Introduction: from personnel management to human resource management. In: J. Storey (ed.). *New Perspectives on Human Resource Management*, London: Routledge. 1995, pp. 1-18.
- [34] A. D. Waldman. A theoretical consideration of leadership and total quality management. *Leadership Quart.* 1993, 4: 65-76.
- [35] A. D. Waldman, T. Lituchy, M. Gopalakrishnan, K. Laframboise, B. Galperin, and Z. Kaltsounakis. A qualitative analysis of leadership and quality improvement. *Leadership Quart.* 1998, 9 (2): 177-201.
- [36] P. R. Weber. *Basic Content Analysis*. 2nd ed., London: Sage Publications, 1990.
- [37] A. Wilkinson, and H. Willmot. Quality management, problems and pitfalls: A critical perspective. *Int. J. Qual. Rel. Manage.* 1996, 13(2): 55-65.
- [38] A. Wilkinson, M. Marchington, J. Goodman., and P. Ackers. Total quality management and employee involvement. *Hum. Resource Manage. J.* 1992, 4 (4): 1-20.
- [39] A. Wilkinson, T. Redman, E. Snape, and M. Marchington. *Managing with Total Quality Management: Theory and Practice*. London: Macmillan Press Ltd, 1998.
- [40] K. R. Yin. *Case Study Research: Design and Methods*, 2nd ed., Thousand Oaks, C.A.: Sage Publications, 1994.