



Grounded theory methodology and practitioner reflexivity in TQM research

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Abstract *There is a paucity of research which seeks to develop TQM theories based on a deep and rich understanding of both socio-political and technical issues. Resultant theories from such an inductive approach could potentially give a deeper insight into TQM, based on sound theoretical evidence. Studies of this kind should not be confused with descriptive case study analysis and examples of applications. While these helpful approaches contribute to the overall TQM discourse, they do not of themselves develop underpinning theory. This paper describes a grounded theory research methodology for TQM, rather than the actual theory and results. The methodology was applied to 19 organisations and to a longitudinal case study. The methodology makes a contribution from two aspects. First, a comprehensive grounded theory approach for developing TQM theory based in practice was developed and applied. Second, the methodology enabled the practitioners involved in the study to be critically reflective and reflexive in their thoughts and influence throughout the study. This reflexivity resulted in the case study organisation evaluating and implementing TQM-based change throughout the study.*

Introduction

The body of knowledge known collectively as total quality management (TQM) continues to grow exponentially both in academia and in practice (Hendricks and Singhal, 1999; Tai and Przasnyski, 1999). The associated proliferation of studies and case examples has led to critical perspective writings which look more closely at the underlying assumptions and theoretical basis of TQM (Wilkinson and Willmott, 1994; Spencer, 1994; McAdam and Leonard, 1999). In developing theory and TQM, Giroux and Landry (1998) show the longitudinal theoretical development of TQM and develop a series of tests for the theoretical convergence of TQM. Furthermore, DeCock (1998) and Lawrence and Phillips (1998) link the theoretical development of TQM with postmodernism and critical theory, viewing these philosophies as a means of transforming TQM. However, these studies identify a lack of practice-based research studies from which underpinning TQM theories can be developed.

The response from those working in the field has been an increasing series of empirical deductive studies which rely heavily on cause-effect relationships and cartesian style thinking (Wilkinson and Willmott, 1994; Carson and Coviello, 1995). These studies (e.g. Wiele and Brown, 1999), have helped to establish causal relationships at a macro level within TQM in differing organisational sectors.

However, many fundamental questions and issues remain unresolved, at least to any rigorous and cogent level. For example, what if key events in TQM in organisations are not linear cause and effect relationships, but rather are phenomena within their own right, in which meanings are unclear? Wilson and Durant (1994) pose the question: “is there a clear coherent quality philosophy underpinning existing TQM methodologies?” Furthermore, do such philosophies and theories need to be elucidated, what research methodologies can be used to achieve this purpose?

TQM is historically rooted in practice (Krishnan *et al.*, 1993) and a rich source of data and experience exists from which theory can be developed. It is essential that research methodologies which seek to develop richer pictures of TQM avail of this resource and, in the words of Carson and Coviello (1995), “have an integrated approach” which involves both researcher and practitioner.

The aim of this paper is to describe a modified grounded theory research method for TQM in organisations which enables TQM theory to be developed based on rich empirical data from multiple organisational sources.

The associated objectives of the paper are to:

- critique the literature on grounded theory in relation to TQM research;
- describe a modified grounded theory TQM research approach that has been developed and applied;
- show how the methodology enables practitioners to become critically reflective and reflexive; and
- to enable the researchers to develop TQM theories.

While this paper covers the research methodology used in the study it should be noted that the research resulted in conceptual models based on the research issue of how TQM can be effectively implemented in an organisation over a four-year period, which are not covered in this paper. The measure of effectiveness was taken as a score of 500+ on the Business Excellence Model (EFQM, 2000), as measured by independent assessors.

Why inductive research and grounded theory in TQM?

Management research is predominantly based on deductive theory testing and positivistic research methodologies (Alvesson and Willmott, 1996). These approaches incorporate a more scientific approach with the formulation of theories and the use of large data samples to observe their validity. However, these approaches, by and large, fail to give deep insights and rich data into TQM in practice within organisations:

In many areas of the social sciences existing deductive, theory testing research methods do not adequately capture the complexity and dynamism of the context of organisational settings (Perry and Coote, 1994, p. 3).

Juran (1991) and Wilson and Durant (1994) emphasise this point by saying there is a “paucity of systematic and rigorous evaluation” in many TQM studies. Furthermore, Wilson and Durant state the need for more theory

grounded and contingency based research rather than be restricted to deductive approaches.

It is suggested that a methodology which inquires more deeply into TQM-related events within the organisation is needed to enable a coherent and firmly founded set of TQM theories to be elucidated. In this situation a phenomenological perspective is considered to be more appropriate: “appreciate the different constructions and meanings that people place upon their experience . . . explain why people have different experiences, rather than search for external causes” (Easterby-Smith *et al.*, 1993). With this social constructionist approach, the use of the interpretist approach in place of the deductive option is much more appropriate for the rich complex research issue of establishing theory from TQM-based organisational practice. In this approach it is important to listen to practitioners (Terziovski *et al.*, 1996; Lewin and Stephens, 1993) and to focus on meaning and reflection of the complex issues observed: “interpretist researchers see language as the means of communication in which there may be differences and nuances of meaning” (Allan, 1998, p. 91).

Grounded theory

One of the most developed inductive research methods is that of grounded theory (Glaser and Strauss, 1967). In this methodology (Figure 1) the researcher starts with minimalist a priori constructs, inquires deeply into organisational behaviour and events and gradually tests and forms theoretical constructs.

The “researcher being able to develop theory through comparative method . . . looking at the same event or process in different settings or situations” (Easterby-Smith *et al.*, 1993, p. 35). Sitter *et al.*, 1997) state that grounded theory uses abstract concepts to describe and analyse a series of general phenomena, but based on practical experience. It is this intrinsic link to practical experience that makes the method attractive to theory forming within the practice of TQM.

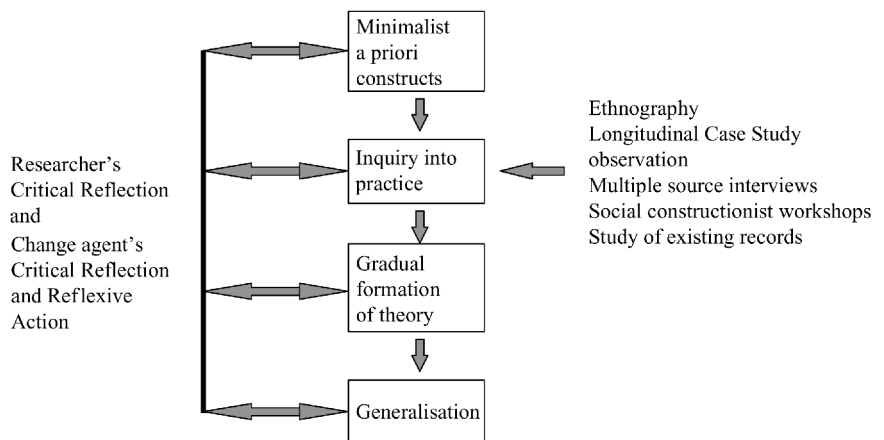


Figure 1.
Generic grounded theory
research methodology
(modified from Strauss
and Corbin, 1990)

Ropo and Hunt (1995, 1994) emphasise the recursive processual nature of grounded theory (see loops in Figure 1) which leads to an interplay of organisational and individual characteristics across time and grounded in data.

Grounded theory
methodology

Key elements of grounded theory in relation to TQM

Theory building

As already stated, those working in the field of TQM need to further establish underpinning theories that are consistent with TQM practice. Even the large-scale quality models (e.g. Baldrige, Business Excellence Model) attract the attention of critical writers who question some of their underpinning philosophy in regard to TQM principles. For example Grint (1995) and Wilkinson and Willmott (1994) inquire if a coherent quality philosophy underpins these models. Wilson and Durant (1995) see theoretical weaknesses in that these TQM models can encourage a “motivational/directional effect”, in other words fulfilling award criteria is rewarded rather than achieving business goals. This is a form of goal displacement where the award model criteria become pseudo business goals. Furthermore, the models encourage evaluation against a standard rather than evaluation of the standard. Many of these problems are identified by Carr and Littman (1990) as relating to TQM’s lack of theory and definition based on in-depth qualitative studies. Thus, a clear coherent philosophy underpinning TQM methodologies can be elucidated using the research methodology of grounded theory. To avoid TQM being perceived as an “atheoretical black box”, a systematic and rigorous approach to TQM theory building must be adopted.

The grounded theory approach to TQM theory building (Figure 1) has potential for further development. This methodology does not exclude practitioner insights and data, rather multiple sources of data are embraced and engaged in a recursive sense-making process. Thus theory building by grounded theory capitalises on the rich practitioner-based knowledge base of TQM. Sources of data can include TQM team meetings, interviews with TQM managers, TQM case studies, etc. (Perry and Coote, 1994).

Strauss and Corbin (1990) show how such data can be gathered from “streams of research” (Carson and Coviello, 1996) and data interpretation can be guided by existing literature and theory. This is a highly recursive process between theory building and theory testing (Wolfgramm *et al.*, 1998). Thus an opportunity exists for grounded theory research methodologies to be developed which will realise the potential of rich practitioner TQM data and enable coherent TQM theories to be developed. In turn this theoretical development should lead to more informed organisational applications and TQM award models.

Processual case study

Grounded theory is a longitudinal research methodology, unlike many deductive approaches which intrinsically rely on questionnaire data taken at a given point in time. Wolfgramm *et al.* (1998) describe grounded theory as

inquiring into the “processual pattern of change at institutional, organisational and strategic level”. Grounded theory can focus on the temporal dimension of a TQM-based organisational setting and investigate contemporary phenomena within its real-life context. Van de Ven (1992) and Yin (1989) argue that case studies are especially appropriate within grounded theory methodology where real-life contexts are being investigated over a period of time. Glaser and Strauss’s original work (1967) was a longitudinal or processual study. Carson and Coviello (1996) point out that longitudinal case studies have much to offer as part of grounded theory. Thus, any grounded theory research methodology for TQM is likely to benefit from incorporating a longitudinal case study approach. In this situation, practitioner-based change can contribute to TQM theory building through an improved understanding of the effects of the temporal dimension. The longitudinal case study must be highly recursive to ensure theory is continuously tested as well as built (Wilson and Durant, 1994).

Practitioner involvement

Much deductive research in TQM involves a strict separation between the researcher and the practitioner (in this paper taken as organisation employees and managers involved in TQM activities). This polarity is viewed as preserving “objectivity”. However, as pointed out by Alvesson and Willmott (1996) such objectivity cannot be preserved while dealing with socio-political issues that are central to TQM theory building. The grounded theory methodology not only realises the impossibility of excluding these factors, rather the methodology incorporates these factors as increasing the richness of the data and understanding of the phenomena involved (Strauss and Corbin, 1990). Thus, as shown in Figure 1, ethnography, for example, can be used within grounded theory, where researchers actually participate in TQM-based organisational change programmes to gain greater insights into the issues.

However, despite practitioner involvement, many current grounded theory methodologies still fail to properly account for practitioner reflectivity and reflexivity. For example, the grounded theory literature emphasises the need for the researcher to be critically reflective (Figure 1) in theory building and theory testing as he/she attempts to make sense of the literature. This critical reflection is essential to ensure “taken for granted” and “underlying assumptions” are questioned (Burgoyne and Reynolds, 1998) and hence grounded theories are rigorous and not merely alternative expressions of the status quo. What about critical reflection on the part of the practitioner or “management evaluation” (Wilson and Durant, 1994)? As the researcher(s) continuously interact with the practitioners over a considerable period of time, often using highly interactive methods, it is reasonable to assume the practitioner will reflect in a different manner to some of his/her experiences, often in a critical manner (Figure 2).

Furthermore, the practitioners’ future action will therefore be affected, critical reflexivity, resulting in changes to the practitioners and TQM change programme being studied. Thus, a potentially large opportunity exists. In this

approach the researcher will become subjective to at least some degree (Wilkinson and Willmott, 1994). This subjectivity was balanced in the current study by contacting a wide range of people within the organisation, using a range of research techniques and using multiple researchers, as suggested by Yin (1989). Researchers and practitioners can share insights throughout the longitudinal grounded theory research process. Gustavsen (1996) points out that managers will obtain the language and tools which enable them to develop their own organisational theory. With both practitioner and researcher being critically reflective and mutually influencing each other there is an increased opportunity for creativity where traditional norms and assumptions are questioned (Strauss and Corbin, 1990; Carson and Coviello, 1996). This will result not only in rigorous grounded TQM theories, but also in improved organisational applications of TQM resulting from increased reflectivity and reflexivity among the practitioners. Thus, TQM-based grounded theory research methods should encourage and develop practitioner involvement and reflection and reflexivity to enhance both theory and practice (Figure 2).

A final aspect of practitioner involvement is knowledge about TQM. Carson and Coviello (1996) state that those involved in grounded theory research must have considerable knowledge and experience about the topic area, namely TQM. The total sum of this knowledge and experience is that of the practitioner(s) and the researcher(s). These factors were implicit in Glaser and Strauss's (1967) original research.

Accuracy – triangulation

Ultimately, any research study into TQM must be based on reliable data. In deductive methods the debate is centred on sample size, however in grounded theory the reliability issue depends more on multiple sources of data (Eisenhardt, 1989; Berg and Smith, 1988). Within each data source there is an emphasis on depth and quality rather than population size (Eisenhardt, 1989). The process of comparing different sources of data to obtain valid theoretical constructs is referred to as triangulation (Carson and Coviello, 1996). Grounded theory research methods in TQM can therefore include data sources which

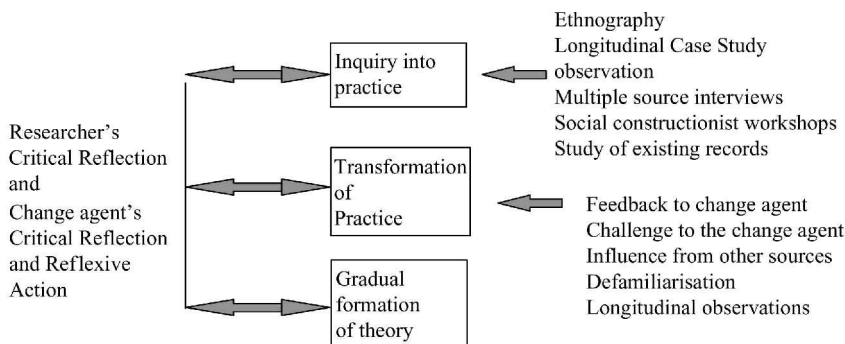


Figure 2. Researcher and practitioner critical reflection and reflexivity in TQM-based grounded theory

possibly were previously discounted by deductive methods. Typical data sources could include interviews, observation, archived material, current documentation, etc. Once again, practitioner-based data sources and inputs are essential to ensure triangulation and theory building and testing within the research methodology (Strauss and Corbin, 1990).

The modified grounded theory methodology

There were three main issues in developing the modified grounded theory research method. First, there is the need to provide both breadth and depth to the data and provide the analysis stage with enough data from a large enough sample. This approach will ensure that valid and reliable interpretations are being made in generating theories and in creating models to articulate the theories.

Second, the data had to be rich enough and detailed enough to go beyond the potentially limited depth of explanation of the theories that occur in large-scale research. Relationships, attitudes and meaningful insights had to be obtained from the research to allow the practitioners' views to be put forth and to be clearly stated so that discussion could be built around them to establish without misinterpretation the relationships and real attitudes TQM engenders in industry. Thus, the researchers could go beyond simple linear cause and effect relationships, which were found to be too limited, rather, the research revealed a much more complex organisational operation.

Third, the practitioner had to be challenged so that the critically reflexive learning could be applied, resulting in TQM-ased action in organisations (Figures 1 and 2).

The three-phase approach

In response to these issues an empirical study was developed which focused in a layering manner on the important issues. This approach resulted in two tracks of research, each running in parallel, consisting of three phases as shown in Figure 3. Phases one and two allowed theories and models to be developed which then could be tested in phase three.

Phase 1 – the macro study

The first phase focused on providing the necessary “breadth” to produce an understanding of the application of TQM and from which reliable patterns and theories could be formed. The second phase of this research track focused upon the issues uncovered by the first.

Phase one was termed the “macro study” and it provided an overview, not only of TQM's practice in industry, but also a database of each company's attitudes, history and application of TQM. During the macro study, interviews were held with the resident quality managers, or if this title was not in use, whoever was considered by the company as most knowledgeable or responsible for TQM. The study concentrated on the strategic application and impact of TQM which inherently means focusing on the corporate level of the

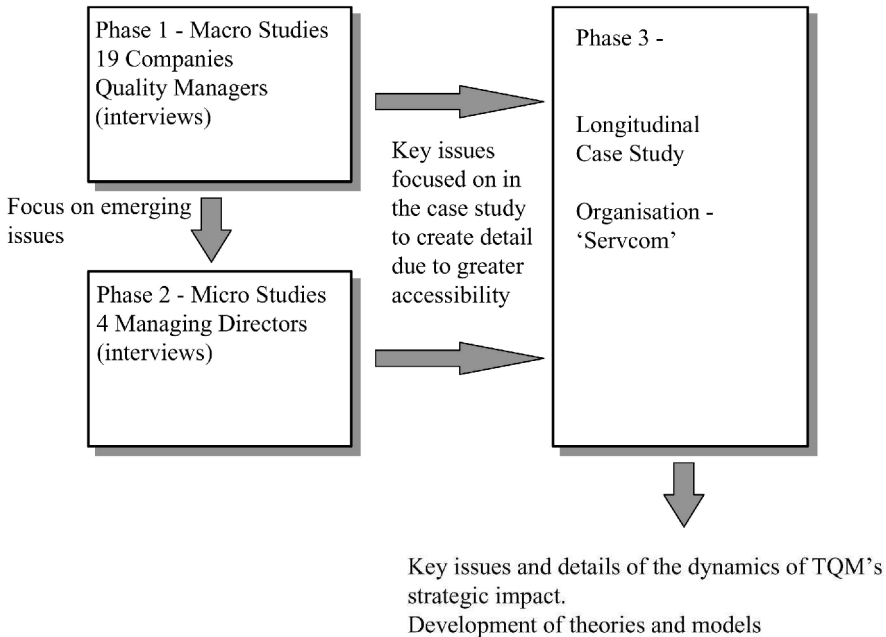


Figure 3.
Research methodology

organisation. During the initial phase, the quality manager provided an essential insight and understanding of TQM's strategic application and its importance. In regard to the number of companies selected, the 19 companies exceed the lower limits as discussed above (Hedges, 1985) and comfortably exceed the numbers suggested to ensure adequate data complexity and richness (Miles and Huberman, 1984). The 19 organisations provided a wide range of companies and perspectives, which created a richness not only through their variation but also in each individual case, which is, as Patton (1990) points out, the real determinant in selecting the number of studies.

Once the macro study had been completed and the patterns, models and theories were developed, key companies identified as the most important from the analysis were selected to be re-examined to focus on the most pertinent questions that had arisen in phase one. This second study was referred to as the micro study. It provided the corporate view of TQM by interviewing the managing directors (Figure 3). This study provided multiple respondents which overcame the problem of using single respondents within each company in phase one and another aspect and dimension was added to the data. It also provided a degree of validation.

Phase two – the micro study

At this stage the managing directors (MDs) were approached, at which point the critical issues that emerged from phase one were focused upon. Having already established a database from the initial interviews on the organisations'

TQM history, phase two MD interviews were more focused and directed. Furthermore, the initial interview allowed a relationship to be established between the interviewer and the TQM-related manager in the organisation. This relationship created a secure, professional understanding and relationship of trust on which the manager could base his/her introduction of the interviewer to the MD and secure an interview. The professional understanding and trust was established by the managers gaining access to university studies in TQM, feedback reports and the researcher's and MD's integrity. Again, a semi-structured, in-depth interview was established, providing enough flexibility to ensure that the MDs could freely discuss the issues concerned. It was important that the MDs did not feel restricted by the interviewer as it was this rich, open honest and free expression of feeling that was being sought.

The first two phases of case studies were devised to provide a breadth of data and understanding of the practice of TQM. These phases involved one interviewer per quality manager and later one interviewer per MD from the reduced selection of companies in the macro study. The third phase provided more rich and deep data. The macro and micro studies involved each interview being taped and transcribed verbatim to ensure that the full interview could be examined and analysed without any of the language, meaning or phrasing of quotes being lost or misinterpreted.

Phases one and two are specific and as detailed and rich in data as the third phase, but they were limited in time and access. Thus, specific areas of inquiry could be examined, but a true "behind the scenes" and multi-faceted picture and understanding could not be provided. To provide such multi-faceted, behind the scenes, rich data, a longitudinal case study was needed that would allow a significant access to a range of managerial levels and allowed the use of various types of research technique. This constituted the third phase which ran in parallel with the first two phases.

Phase three – the Servcom case study

This case study, carried out on an organisation given the alias "Servcom", gave the opportunity for a longitudinal study which involved a range of research techniques. These techniques included participant observation, semi and unstructured interviews, ethnographic observations, facilitated focus groups, university-organisation meetings, facilitated management discussions at the university and review of company documents and archives, which allowed a multi-perspective view of an organisation's history, attitudes, views and practice of TQM from a strategic perspective. In total the formal interviews consisted of the entire senior management team and managing director (20), 30 middle managers and a wide cross-section of employees. All formal interviews were taped, transcribed and coded. Many managers were revisited for second and third formal interviews, depending on the data analysis. This unprecedented access was a result of a university-industry four-year partnership with the organisation. The goals of the partnership were to develop learning and understanding in regard to TQM theory and practice and to

enable research methodology and results for the university-industry studies to be developed, hence the development of the modified grounded theory approach during the partnership. The research study partnership lasted four years. In the author's experience, the research approach of grounded theory (Strauss and Corbin, 1990) needs a long timescale to observe the TQM development and to develop conceptual models based on coded data. Time limits were not a problem as managers could be visited on an ongoing basis, working around their schedules to ensure that a full and complete interview could be completed answering all questions and indeed returning at a later date to seek clarification to ask questions that arose. In addition, a wide range managers and staff were interviewed to provide a range or layers of attitudes and to avoid a bias or unqualified opinion which can be a problem in single respondent studies. This issue is of particular concern in regard to strategic research, where using MDs as single respondents has been shown to be problematic due to the lack of objectivity and perspective of the MD in recalling, for example, intended and realised strategies (Bowman and Ambrosini, 1997).

A critical point is that this was a longitudinal study where the development of the organisation in regard to its changing attitudes toward TQM could be observed. These observations included reaction to external and internal environmental impacts. It allowed a more detailed history of the organisation to be plotted, with wide access to documentation providing a clear picture of the reasoning for TQM's adoption, and the selection of existing tools and techniques and its strategic importance. Therefore, the case study research included an element of ethnography as what was being attempted was to learn the rule of life in the organisational context and not only to accept or listen to the views articulated but also to actively engage those views in discussion. Thus, the practitioners were challenged and in turn could become critically reflexive in their thoughts and actions. This development in the practitioners was recorded over the four-year timescale at university-organisation meetings, interviews across a range of managers and ethnographic observations.

Critically, as this third phase of research was being carried out at the same time as the multiple case studies, the key issues being uncovered in phase one and two could not be studied within themselves. These issues were therefore brought over and their parallels examined in Servcom. The specific question raised in a macro case study could not be specifically answered in regard to a particular company by the reactions in Servcom, however, wider issues that were replicated throughout the macro study in regard to a generic issue were examined. In this manner Servcom allowed greater depth and more intricate issues to be dealt with.

The other critical role of Servcom was to aid in the validation of the theories and models developed from the macro and micro studies. The wider sample was used to establish the models and the Servcom single case was used to examine its parallels and test the completed models. It was vital that Servcom was not used to create the model or theories, since these would be based on one

specific and unique scenario and would not be viable to be considered generalisable or generic enough for theories and further discussion to be based on. Similarly, as in the case of phases one and two, Servcom interviews were taped and transcribed verbatim to allow once again the full value of the interviews to be gained and to have data as rich as possible. The data were then coded individually by a number of different researchers. Next, the researchers came together to recode the data, adding other information such as ethnographic observations. This process was long and tedious but enabled rigour to be added, ensuring the coding was a true reflection of the research. Following the coding constructs and conceptual models were developed for further testing and validation over the remainder of the research study.

Generalisation of theory based on case study research

The qualitative versus quantitative debate which centres around the premise that scientific or experiment-based research is the ideal method of sampling and, therefore, the best approach to use to generalise theories to a population. The population size and nature is established, and an appropriate sample size is selected and tested, then using t-tests and other confidence testing methods, generalised findings are produced. The basis of this argument considers that case studies to have two main flaws, the limited size of the sample taken into consideration and the rigour of the investigation, analysis and presentation of results and conclusions. First, consider the sample size and its reliability to base a generalised theory.

Yin (1989) answers this issue by citing the frequent critical comment on case studies, which is to ask how one can base a theory and generalise based on one case study. Yin points out that in regard to scientific lab-based experiments, results are rarely based on one experiment, but on a set of experiments, and the same basic principle applies to the case study situation – that is, by means of replication studies can be compared and examined. In the case of phases one and two, multiple case studies were used. Multiple cases are a powerful means to create theory because they permit replication and extension among individual cases (Eisenhardt, 1991, p. 620). However, the question still remains about the ideal number of case studies that should be examined. The number will still be significantly lower than in the case of a mailed questionnaire that could select an entire population or significant sample size consisting of hundreds or thousands. Perry and Coote (1994) state that the literature on the issue of case study sample size varies significantly from the view that the number selected is at the discretion of the researcher, to saturation and to the point of redundancy. Indeed Patton (1990) considers that as there are no set rules for selection of a sample size in qualitative research and that each scenario needs to be considered in context. However, Eisenhardt (1989) considers that four cases should be the lower limit, since any less would create difficulty in generating theory with complexity.

As for the upper limit, Hedges (1985) takes into consideration the constraints of time and finance in regard to the work load of such research and considers an

upper limit of 12 cases, while Miles and Huberman (1984) suggest 15 cases. However, Patton states that rather than following set rules:

Validity, meaningfulness and insights generated from qualitative inquiry have more to do with the information-richness ... and the observational/analytical capabilities of the researcher than with the sample size (Patton, 1990, p. 185).

However, in regard to this single case study Chelly (1996) points out that:

Good story telling about a single case would provide better theoretical insights than multiple case research based on creating good constructs (Chelly, 1996, p. 77).

The rigour and practitioner reflexivity of case study research

Another critical consideration in regard to case study research is that of its rigour. This primarily relates to: “equivocal evidence or biased views to influence the direction of the findings and conclusions” (Yin, 1989, p. 21). However, this is as applicable in the situation of quantitative techniques, in the bias construction of a questionnaire for example. To ensure that the case study research is as rigorous as possible issues discussed above can be concentrated upon in regard to multiple case studies, replication and multiple respondents. The other key issue to ensure rigour is the construction of the procedure.

The objective of this research was to provide rich, deep data that placed an emphasis on the practitioner’s view, with an attempt at “letting the practitioners speak”, this placed a large focus on language, meaning and description. There are two main ways to write the results of a case study, the first is descriptive, the second is to combine analysis and description where quotes from the interviewee would be included as an essential element of the analysis and description (Simon *et al.*, 1996). By adopting the second approach and mixing direct quotations into the analysis and description, the practitioners are allowed to “speak” and the full meaning and richness of the opinions and attitudes can be allowed to come across. This allows the practitioners to have a greater input and hence to be critically reflexive:

Clearly, a better integration of practice-focused research into academia will entail co-operation with managers. Managers need to understand that they are more than the mere source of academic data (Eccles and Nohria, 1992, p. 185).

This approach was adopted in all phases of the research. Furthermore, the practitioners increasingly started to question the “norms” and underlying assumptions of their own knowledge of TQM, as the industry-university partnership progressed. Thus the TQM programme moved from a simple training programme to one where managers embraced and institutionalised change based on beliefs. Examples were reward and recognition schemes designed with employee input, appraisal schemes with TQM goals and TQM goals integrated with business strategy. This questioning led to the development of critical reflexivity where actions were changed as a result of the new way of thinking. An example related to a senior manager who previously adopted a strategy-management and workforce-operations approach. He modified his thoughts and behaviour by allowing and inviting employees of all

levels to participate in planning by using the Business Excellence Model (EFQM, 2000). This action was a bold step, as other managers at this level were using the model as a management tool and excluding employee input. However, this manager argued that he had become convinced that employee input was essential to obtain business benefit from the model. He also became a very effective role model to influence other managers.

Conclusions

The study has shown that TQM research is predominantly deductive, resulting in research methodologies which are based on large sample questionnaires and theory testing. In comparison, TQM-based inductive research studies are much less frequent and often less rigorous, being limited to qualitative case descriptions. This paucity of rigorous grounded theory building research in TQM has contributed to the debate prevalent among critical perspective writers regarding the theoretical basis of TQM. For example, the quality award models are criticised for encouraging “goal displacement” and “motivation/direction” and lacking a coherent underpinning TQM philosophy.

It was found that the grounded theory research methodology could add considerably to the body of knowledge on TQM and help establish hitherto elusive grounded TQM theories that have been rigorously tested and triangulated by multiple data sources.

The grounded theory approach incorporated longitudinal case study data analysis which helped maximise the contribution from practitioners. The increased critical reflection and reflexivity of the practitioners contributed both to the theory building and the ongoing organisational change effort. Furthermore, data sources previously discounted by deductive methodologies could now be fully utilised by the grounded theory approach.

Overall, the grounded theory based methodology that has been developed and applied is a rigorous basis for building, testing and establishing TQM theory while also contributing the organisation’s TQM change effort.

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