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(Process) Control and Total Quality Management: A Qualitative Study of Three Manufacturing Organisations

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Abstract

This paper empirically examines management perception and understanding of the concept of control at three quality-driven manufacturing organisations operating in the UK. A review of the literature pertinent to TQM would suggest that 'control' is a means of providing information or feedback aimed at both monitoring a process and at eliminating causes of unsatisfactory performance, and that direct control is reduced through increased involvement and empowerment of the workforce. This paper is critical of these assumptions. It was shown that managers at various organisational levels found little difference between TQM and quality control, and that they viewed process control as a means of increasing control over the workforce. In sum, the paper demonstrates the danger that the promised TQM benefits could be vulnerable to management bias towards (process) control, leading to its failure in the long term.

Key Words: Total Quality Management, Process Control, Case Study Research.

Introduction

In response to the question of "does total quality management (TQM) increase control?" Godfrey *et al*. (1997) argue that "whether or not TQM increases management control may depend on the circumstances within each organisation and the manner in which quality management initiatives are implemented" (p. 571). And, according to Godfrey *et al*., although TQM would appear to change the form of management control, but whether or not this is increased is a matter of empirical question" (p. 571). Indeed, these statements echo what the human resource management (HRM) literature has said for years: that TQM … in practice, may be seen as resulting in high levels of control (Legge, 1995, p. 246), and that "while managers seek commitment and co-operation from their employees, increased control over the work process is a cornerstone of TQM" (Wilkinson, 1994, p. 558). For Legge (1995), the aim of initiatives such as TQM is to maximise the surplus value of labour through increased control over the workforce. In a similar vein, a review of the literature pertinent to HRM and industrial relations (IR) indicates that

managing TQM organisations is mainly concerned with control and that to achieve a balance between control and employee's consent an element of disguise is necessary: process control – central to TQM.

On the other hand, in the TQM literature we found almost no mention of control as the exercise of power. In fact, for quality management specialists the concept of control refers to monitoring the work process – as opposed to monitoring the workforce. Dale and Oakland (1994) summarise the position by arguing that "all control requires the establishment of a standard for the means of comparison, the assessment of conformity with the standard, and the application of suitable corrective action where necessary". The implication of increased control over the work process is clear-cut: it provides a greater consistency and predictability, thereby reducing variability and achieving uniformity around a target or nominal value. Handy (1985, p. 327) and Oliver and Wilkinson (1992), among others, see no conflict between the objective of conformity with a standard and the desire to increase employee commitment. However, as Delbridge *et al*. (1992) argue, this seems to be indirect through increasing managerial power at the expense of employees' influence. That is, although direct control of the workforce is not an aim of TQM, but TQM consists of an increasing set of tasks which are closely monitored and strictly controlled, further subordinating the worker to the capitalist (Godfrey *et al*., 1997, p. 561). Oliver and Wilkinson suggest an interesting sidelight on this potential ambiguity: "The critics view Japanese-style practices as insidious control devices, the worst of which are represented by strategies to elicit loyalty and commitment to the company (1992, p. 341)".

An analysis of the aforementioned discussion of the concept of control in the context of TQM reveals that the main area of controversy is the part that process control might be (mis)used by management to tighten their managerial control over the workforce. Clearly, not everyone would agree that TQM is inevitably associated with an absence or otherwise of control. On the one side are railed those HRM/IR specialists who are philosophically inclined towards McGregor's (1960) Theory Y. They see, as McGregor put it, that control and punishment are not the only ways to make people work, instead man will direct himself if he is committed to the aims of the organisation. Accordingly, they would argue that

the desire to increase control over the process is synonymous to increased managerial control over the workforce (Godfrey *et al.*, 1997, p. 559). On the other side, are those from the operations management field in general and quality management in particular who refer to control as a means of monitoring the work process. Such control of the process, it is argued, will result in 'optimal performance' (see Beer, 1966). Oakland (1993), for example, argues that TQM is a change from an external control mechanism to an internal control mechanism.

Clearly, there would appear to be wide variation in the application of control and its associated practices by both HRM/IR and operations management professionals. Yet, empirically based research about its practice and its effects on the achieving TQM and organisational objectives is limited. Consequently, a key question to be faced by advocates of TQM is how control is viewed by the current management of TQM organisations. Is there any difference between control of the process and control over the workforce? Is control over the process is a sophisticated form of workforce control? What we know is that TQM would change the form of management control, but whether or not this is increased or implies control over the workforce, as Godfrey *et al*. (1997) have pointed out, is a matter for empirical research.

The primary purpose of this paper is to help the understanding of the key issues and implications of (process) control in the context of TQM-driven organisation. It tries to achieve this first, through a literature review, then by performing a qualitative study of management approaches to control and its implications for the effectiveness of TQM. Deriving from the research findings the paper next highlights the implications for practice of TQM, thereby making it possible to appropriately apply control mechanisms which bring about enhanced organisational commitment, performance and favourable TQM outcomes.

Approaches to managing organisations and their associated control mechanisms: A review

An analysis of the various approaches to managing organisations reveals that the main area of controversy is the part that the manager is seen to be a rational actor who is in charge and who can control the organisation. Specifically this is the approach, also predominant one, taken by rational-

bureaucratic school. On the one side are railed Taylor (1911) who introduced the science of work – i.e. scientific management which is also regarded as the first strand in the development of modern management – as a managerial function, followed by Weber, Fayol and Brech who articulated the rational design of the administrative structure of management control – the second strand in the development of modern management. Taylor's viewed managers as engineers or inventors and workers as mechanical parts. (see Inman, 2000; Handy, 1991; Stoner *et al*., 1996). Weber (1947) saw the rational-bureaucratic type of organisation became predominant because it gave rise to greater control and efficiency. Here due to increase in the scale of production and vertical integration of organisations, as Weber has pointed out, control would become an organisational problem, followed by problems of co-ordination and complexity. In response to increased size and complexity, Weber developed the idea of the legal-rational bureaucratic organisation – a way to mechanise control and cooperation not just production and operations. Weber suggested that the best way to manage a business or institution was to coordinate through a centralised, hierarchical, and highly departmentalised structure and to control employee behaviour through clear, prescribed lines of authority and codified rules and responsibilities (cited in De Smet, 1998). Later, in an attempt to overcome the problems associated with control and, in turn, to achieve control, Fayol (1949) identified constituent functional elements of the management control process – i.e. planning, organizing, co-ordinating, commanding and controlling – and formulated a set of principles of how to organise in order to achieve control (Inman, 2000). Brech (1963) follows a very similar line, arguing the need to provide an unambiguous definition of what must be done, who is to do it and to whom each is responsible as prerequisite for an effective control system. In consequence, the control became more bureaucratic and embedded in the production technology and in formal systems and procedures (Edwards 1979 cited in Partridge, 1990, p. 204-5).

A major and growing concern, which has developed out of the rational-bureaucratic school was the task-centred approach, as opposed to person-oriented approach, to managing workforce (Barnard, 1938 cited in Partridge, 1990, p. 205). Here the approach emerging was the' human relations', taken by the human

school of management – the third strand in the development of modern management. Much more significantly, the approach seemed to be the very antithesis of that of the previous strand in management. Further reflection suggests that there were two fundamental flaws in the thinking associated with the approach taken by rational-bureaucratic school. One was that it saw and, in fact, treated an effective organisation as machines and bureaucracies. The other is that it did not account for employees' needs for autonomy and affiliation (De Smet, 1998). Such words are also echoed by Bishop's (2004) comment that "rationality does not recognise human needs, it recognises only things". To resolve the deficiencies of the technical approaches to managing organisations – i.e. the rational bureaucratic school – the human relations approach to management suggested that control could be enhanced through person-oriented supervision rather than task-centred supervision: the emphasis for first line managers was to become leaders and motivators of the workforce (Partridge, 1990, p. 205). One of the clearest statements of the aim of the 'human relations' school, along with the underlying rationale for the new strand in the development of modern management comes from Partridge's (1989, p. 205) writing in the nature of managerial work. The 'human relations' school tried to resolve a control dilemma: uncertainty for management could be reduced by taking discretion away from the workforce but, as the production technology became more sophisticated and the competitive environment demanded more flexibility from the production process, management found that it was potentially more technically effective for workers to have discretion (p. 205). The strengths and weaknesses of a control-approach to managing workforce, especially in so far as it is not so visible, have been hotly debated (Gouldner, 1954) and certainly, as Partridge (1990, p. 205) has pointed out, the emphasis upon control has been played down by recent pundits of management such as Dale and Drucker (Willmott, 1984) as well as the widespread awareness among management of organisations who have initiated changes of one sort or another in order to improve their viability. Of these change initiatives, TQM has been undoubtedly the most widely used change programme since 1980s. Basically, TQM is concerned with the developing workforce through delegating of authority, trust and openness, and concern for people as critical for human and

organisational effectiveness. However, critics of TQM view quality-related practices as a means of tightening managerial control over the workforce – as opposed to improving the work process – and argue that the significance of any shift from controlling workforce to developing workforce in the name of TQM should not be overestimated. But whether such claim is valid is a matter for empirical research (Godfrey *et al.*, 1997). Given such unanswered questions, and the potential importance of a sound understanding of the concept of control and its associated practices for the management of TQM organisations, this paper attempts to eliminate such ambiguity surrounding the concept of control towards filling the void between the rhetoric and reality of managing TQM practices.

Research Method

The data for the present study draws on a part of larger research project which aims to explore the application of TQM initiatives in practice in a sample of quality-driven organisations in the UK. Choi and Behling (1997) suggest that, in contrast to testing a few preconceived propositions in large samples, a qualitative approach provides an in-depth understanding of the research subject. Our adoption of qualitative methodology has also a close affinity with Waldman *et al.*'s (1998) argument that there exists little work about the nature of managing TQM practices as organisations pursue quality improvement initiatives. Indeed, due to the absence of a clear and tight definition and the confusion surrounding the concept of control, a qualitative study seems to capture and achieve the intended objectives of the research (see also Conger, 1998; Trevino *et al.*, 2003; Bryman *et al.*, 1988).

To this end, a multiple case study was adopted not least because control is a very broad and complex concept, the existing research associated with control in the context of TQM is insufficient to judge whether control is related to the control of process or control over the workforce, and finally to eliminate some of the current confusion surrounding the concept of TQM-type control, the phenomenon does need to be studied within its context (see Bonoma 1985). Of a sample of nearly 19 manufacturing organisations in our initial large-scale survey (membership organisations of one of the national partner organisations – NPOs – of European Foundation for Quality Management – EFQM – in the UK), 8

organisations agreed to take part in further study of their quality programmes. Of these, a sample of 3 manufacturing cases was chosen for further investigation of their managerial control with regard to TQM programmes (see Table 1). The selection of cases was based on several criteria, namely, there has been a belief that TQM has its root in manufacturing settings – as opposed to service-oriented organisation; they had long experience in adopting TQM initiatives and its implementation (see Garvin, 1988; Oakland, 2003); they had less mobility of their senior management team (see Deming, 1986); and finally, there existed well-established quality departments with vice president (VP) quality to assist the organisation to introduce continuous improvement activities, and they had largest number of employees. It should be noted that all participants in the three cases preferred to remain anonymous, and hence their identifying information had not been disclosed.

Table 1. Profiles of the three case studies

	Manufacturing 1	**Manufacturing 2**	**Manufacturing** 3
Size	1000-4999	5000-9999	5000-9999
Economic sector	Private	Private	Private
Experience with TQM initiatives	16 years	19 years	24 years
No. of interviewees in each case	14	17	16

The primary data sources were semi-structured interviews and collection of documentary evidence with respect to quality policies and involvement of management in planning, implementing and controlling quality-related initiatives. In total, 47 interviews were carried out during 2003 to 2005. To elicit the views and opinions of various managerial levels at the three case organisations on applications of control, its associated mechanisms, and its implications for managers and employees and for the effectiveness of TQM itself, the interviews involved open-ended questions and covered the following topics:

- The nature of control

- The variation in control prior to and after adoption of TQM initiatives
- The consistency between managerial control with that of middle and first line managers
- Employees' expectation and perception of control prior to and after adoption of TQM programmes
- The relationship between control and effectiveness of TQM programmes
- Control versus empowerment and employee involvement

Each interview lasted between one and a half to two hours. During the interviews, notes were taken and all interviews were tape-recorded with the consent of the interviewees and thereafter transcribed verbatim [see Waldman *et al*., 1998]. Following the procedures outlined by Strauss and Corbin (1990) *content analysis* was conducted on the interview transcripts. The primary purpose here was to make valid inferences from text through classifying many words of text into much fewer content categories (Weber, 1994, p. 253), or as Holsti (1969:14) put it, "to objectively and systematically identify specified characteristics of messages".

The qualitative examination of the specified characteristics of the interviewees' responses is outlined below.

Research Evidence

The rationale for control

The view was expressed by many managers that TQM initiatives would not achieve its intended objectives without an appropriate level of control. Specifically, across top and senior management levels, there was an extremely high mention of control over the workforce – as opposed to control of the quality-related processes – as a means of fulfilling TQM's promises of continuous improvement of overall organisational performance.

> We have been implementing TQM for over two decades. Based on TQM, we established a variety of working standards. Now it is responsibility of our middle and first line managers

> and to a great extent shopfloor employees to follow those procedures and standards to make sure that TQM achieves what it is intended for. [Senior Manager – Manufacturing 3]
>
> TQM is a complex concept and difficult to implement. To overcome such complexity and benefit from its advantages, we should impose a tight control over the TQM implementers (i.e. first line managers and shopfloor employees). [Senior Manager – Manufacturing 2]

Such views were also expressed by respondents in middle managerial levels as well as supervisory positions:

> I have been closely engaged in TQM implementation mainly because of my position as a middle manager and my responsibility as a quality manager. Despite the existence of different operational techniques and tools pertinent to TQM for monitoring the whole processes, we have to establish control over workforce to guarantee those TQM-associated techniques and tools are being used as planned. [Middle Manager – Manufacturing 1].

Indeed, the above quotes reveal the increased control over the workforce as a means of achieving TQM favourable results. These findings have some obvious affinities with Delbridge *et al.*'s (1992) view that regards TQM as a control system and a means of increasing managerial power at the expense of employees' influence. Clearly, problems with an appropriate understanding of control in the context of TQM have undermined major efforts by the case organisations to improve liaison between higher TQM effectiveness and organisational commitment. According to some of the respondents at middle and first line levels, there has been a close association between the uptake of TQM initiatives and extending the coverage of control beyond monitoring and eliminating causes of unsatisfactory performance. The analysis of the interviewees' responses indicates a lack of understanding of the concept of control in the context of TQM. In more elaborate language, the evidence shows that those managers who felt they had adopted an appropriate rationale for using control to comply with the TQM requirements had focused only on the more obvious and ordinary type of control: external control –i.e. control over workforce. Similarly, some managers at middle and first line levels considered such approach to control to be

sufficient for desirable TQM outcomes, despite the subsequent negative implications for workforce, about which a large number of managers are still ill-informed.

Despite a strong emphasis on control as a means of achieving TQM objectives, there were no mentions, in particular at middle and first line levels, of control as a means of reducing variation through increased feedback and self-regulation (see Beer, 1966). Such rationale for using control is, however, inconsistent with TQM in that control is regarded as "the process by which information or feedback is provided so as to keep all functions on track" (Oakland, 1993, p. 29). Surprisingly, although TQM seems to be vulnerable to a lack of organisational commitment due to adoption of such approach to control, as our evidence shows, in practice the risk appears minimal. Indeed, the majority of respondents at senior levels attributed such approach to control as a major contributor to their relatively acceptable TQM success. Although TQM requires control of the process, the analysis of the interviewees' responses shows that such relationship is indirect through control of the workforce. This is, however, in sharp contrast to the advocates, both academic and professionals, of TQM's view that "attempting to control performance through systems, procedures or techniques external to the individuals is not an effective approach since it relies on "controlling" others" (Oakland, 1993, p. 29).

Process control versus control over the workforce

Despite having TQM initiatives in place for nearly two decades, and the claim that increased control over the workforce is not an aim of TQM (see Deming, 1986; Oakland, 1993), the majority of managers highlighted a close link between continuous monitoring of individual employee performance and the uptake of TQM initiatives. Much of the interviewees' reasoning for existence of a close association between adoption of TQM and exerting control over the workforce was based on the notion that "quality management is a systematic way of guaranteeing that all activities within an organisation happen as planned" (Collard, 1993, p. 3). To guarantee the expected TQM outcomes, organisations take different perspectives. A review of the literature pertinent to TQM reveals two quite different views on TQM: the 'hard' statistical approach, and the 'soft' people-based approach (Torrington and Hall, 1998, p. 300).

While the former reflects the production orientation of the quality 'gurus', the latter, emphasises on the management of human resources in the organisation and lays particular focus on the need to change culture (Wilkinson *et al*., 1998).

> We use a wide range of manufacturing techniques and TQM tools from the design to the point that the product is delivered. It is obvious that the control of employees who apply such techniques and tools constitutes a huge proportion of our organisational control system. [Senior Manager – Manufacturing 1]
>
> It took us some five years to have a reasonable quality culture in our organisation. What I personally observed during the course of TQM implementation was a clear variation in individual employee's performance followed by negative implications for TQM success. [Middle Manager – Manufacturing 2]
>
> We have established a sound foundation for our quality programmes. To ensure minimum variation of output, all relevant techniques and tools have been established. What we need to do now is to make sure that our workforce achieves the planned outcomes. Obviously this necessitates introducing various control strategies and exerting control over our workforce. [Senior Manager – Manufacturing 3]

There is no doubt that the TQM techniques and tools exemplify the power of TQM (Black, 1993). However, it appears that they are being regarded as a control mechanism to achieve long-term objectives of TQM – as opposed to being viewed as tactics (Pegels, 1993) to help individual employees in carrying out their jobs. The analysis of the interviewees' responses highlights the tendency of all managerial levels to attribute poor quality to poor individual employee performance. Obviously, when TQM is seen from a hard perspective, the concentration is on technical quality of the product and the process. Therefore, it is not reasonable to expect management to attribute poor quality to poor management or any deficiency in system. Clearly, what appears to be the case is that in all three cases TQM seems to have been just applied to the technical manufacturing function. Indeed, this is in sharp contrast to TQM philosophy. These findings have some obvious affinity with Crosby (1979) erroneous assumptions that are held by most management individuals and cause most of communication problems

between those who want quality and those who are supposed to effect it. As Crosby put it, there exists a belief that "the problems of quality are originated by the workers, particularly those in the manufacturing area" (p. 19). However, quality gurus such as Crosby (1979), Juran (2003) and Deming (1986) attribute the poor quality to faulty systems and faulty management practices. Despite such attention, many respondents at senior management levels, however, do seek to tighten their managerial control in the name of TQM and follow the steps proposed by earlier management schools. As yet, as interviewees' responses indicate, there may be relatively little achievement in shifting the blame on individual employees or as Wilkinson *et al*. put it, "largely ignore it in practice" (1998:4). Indeed, Wilkinson *et al*.'s (1998) review of literature on control and TQM gives the impression of a widening rift in the publications on TQM between the academic and business-led research, with little awareness of the vital role of people-based issues, and the academics who endlessly dissect the minutiae of the soft factors but who display little interest of the practical issues and desired TQM outcomes. To magnify this gap, Wilkinson *et al*. (1998:15) borrowed a quote from Hill (1991: 559): "While solutions to the technical issues of designing appropriate systems and procedures are fully specified, there are lacunae in the treatment of the social factors".

Perspectives on control across managerial levels

The analysis of the interviewees' responses to the concept of control reveals that the main area of controversy is the part that control appears to be synonymous with exerting more power to achieve TQM objectives, and that quality control is a developed version of monitoring role of management. Indeed, the findings highlighted two main, but different, views of control: the first viewed control as a means of monitoring employee's behaviour at work through immediate supervisors and work-related standards and procedures; and the second viewed control in terms of both quality control and control as a management function. According to the first view, quality control has been embedded in the overall organisational control. Indeed, this view has very close affinity with management-by-objective in that it evaluates workers by attainment of pre-determined specific objectives.

> For me, control is control. No matter what organisational context we are in. We set goals and we monitor whether it has been achieved or not. [Senior Manager – Manufacturing 3]
>
> Since adoption of TQM, our knowledge of various control mechanisms has been improved both in terms of TQM-related control and much more importantly of monitoring employee's performance. [Senior Manager – Manufacturing 1]
>
> My own view to control, at least for those under my supervision, is two-fold: first, to see the effectiveness of TQM initiatives, and second, to identify the poor implementers. [Middle Manager – Manufacturing 3]
>
> My impression of the current control mechanisms in our organisation is that it has originated from our traditional bureaucratic control which is still in place. Clearly, this is bureaucratic control that shapes our approach to quality control, followed by blaming people for any inefficiency in the system. [Senior Manager – Manufacturing 2]

In contrast, some managers mainly at middle and first line levels were clearly aware of the unhealthy emphasis on controlling employee's behaviour as the main cause of variation in TQM expected outcomes. In their view, the current approach to control systems in their organisations provides pressure on workforce to follow TQM procedures and standards but, as they clearly mentioned, it is managerial pressure and power that determines whether or not TQM achieves what it has been introduced for.

> Although we have been reasonably successful in implementing TQM, but I simply can attribute the effectiveness of our TQM programmes to numerous TQM-related working instructions, activities and procedures followed by tight control of workforce. [Middle Manager – Manufacturing 2]
>
> I agree that TQM is mainly concerned with participation and empowerment of the workforce. Theoretically, this implies reduction in direct control over the workforce. However, I simply can say, ultimately if anything goes wrong, this is the workforce who is held accountable for the failure of the TQM, no more no less. [First line Manager – Manufacturing 1]
>
> I have been managing various quality activities for over 14 years. My impression of the concept of control in quality-oriented organisation is that control under TQM umbrella is

> invisible. In fact, it is a combination of both traditional and quality control procedures. [Middle Manager – Manufacturing 3]

Some interviewees at both middle and first line levels were inclined towards beliefs about TQM that can be regarded as a top management-led philosophy, leading to high levels of managerial control. According to the interviewees, there exists a pervading influence of TQM's means of quality control to achieve business excellence. Such quality control, as the interviewees mentioned, had created a quantitative approach to continuously identifying job-related problems, followed by holding employees accountable for any deficiency observed in the system. As a result of such heavy emphasis on quantitative objectives, one interviewee at senior level called quality control in particular and TQM generally as "quality control approach to employee performance appraisal".

Indeed, the majority of respondents in particular at middle and first line levels found no or little difference between TQM and quality control and viewed TQM as, in the words of one middle manager, "a way to get around the problems of low productivity". Although most managers at various organisational levels recognise the need for higher productivity through well-trained and quality workforce, they seem reluctant to start from the promise that it is the quality workforce that are major determinants of TQM success, and thereby all systems in place should be designed in support. Indeed, our analysis of the interviewees' responses in particular at middle and first line levels reveals that not only have the difficulties of taking a soft approach to TQM been underestimated, so too have the benefits.

Workforce control versus workforce commitment

An important issue that has run through the whole history of TQM is the place of workforce commitment to the process of TQM implementation. It has been argued by Legge (1995, p. 246) and Wicken (1993, p. 86) that a combination of both workforce commitment and control of the process could form the basis for achieving long-term high quality (see Wilkinson, 1994). However, as the analysis of the interviewees' responses indicate, it is extremely difficult to disentangle these two in

practice. Indeed, as the majority of middle and first line managers mentioned, the problems arise when these twin issues cannot be given the equal weight by senior management. On the one hand, senior management require quality control and any associated tools and standards to achieve the TQM expected outcomes, whereas individual employees require absolutely equally empowerment and participation in any quality-related initiatives. What is known from the previous research is that in the presence of commitment TQM will succeed. Surprisingly, as noted by the majority of middle and first line managers, the findings indicate that this is not commitment *per se* that lead to TQM success, rather various external control mechanisms in the name of quality control have resulted in their relatively acceptable TQM effectiveness.

> There is no doubt that we [management] seek higher commitment from our employees for the purpose of higher TQM effectiveness. But we do this mainly through increased control over our employees – rather than enhancing their commitment. I should say the former is much easier [Senior Manager – Manufacturing 1]
>
> We have a variety of quality control tools in place. But when something goes wrong we look for the wrong doer [i.e. the employee] No mater how committed he or she is. [Middle Manager – Manufacturing 2]
>
> This is true that we [senior managers] seek our middle and lower level managers as well as employee commitment not least because of the complexity of TQM itself. But in reality when it comes to its implementation it leaves us no way but to divert our attention to employee control and to a lesser extent employee commitment. [Senior Manager – Manufacturing 3]
>
> My experience of implementing TQM programmes has made it obvious to me that TQM gives limited level of empowerment and employee involvement in practice. This is mainly due to the fact that various quality control tools and complexity of associated procedures would put the employee in dilemma. Let me put it this way, this is not the individual employee who decide on the extent of his or her empowerment over or involvement in TQM activities, rather both are defined within the frame of quality control. Thus, any

> deviation from the limits will be ultimately questioned. [Middle Manager – Manufacturing 3]

The above quotes from the interviewees appear generally to have three common denominators that may be said to characterise the phenomenon of commitment in their TQ-driven organisation. First, commitment to TQM is indirect through quality control tools and associated standards and procedures; second, the nature of quality control seems to be the main source of commitment to TQM activities; and third, how this commitment is maintained and sustained is still questionable. This, in turn, might imply that it is not the management or even employee commitment *per se* which determines the ultimate success of TQM programmes, rather it is the exercise of power via quality control tools which determines the effectiveness of TQM initiatives. To facilitate this relationship employees then are empowered and involved in some specific TQM-related activities within the framework of quality control regime.

Furthermore, in the majority of interviewees' responses at various organisational levels one common theme stands out: there exists a close association between, on the one hand, quality control, and on the other hand, power and knowledge. As the interviewees highlighted, the adoption of TQM had influenced organisational learning not least because it had increased employees' knowledge of using tools, saving costs and performing efficiently. The key point here is that, in the words of one middle manager,

> The increase of knowledge of our employees over their work might be mistaken taken as their high commitment. My point is when you are good at doing something you do it better and better over time, no matter how committed you are. This is simply because you have confidence that you would not be blamed for wrong doing.

As expected, the majority of interviewees at middle and first line levels claimed that their organisations tended to implicitly compromise an increase in employees' knowledge with employee commitment. However, they cited examples of a clearly high staff turnover in their assembly-lines.

Control and its implications for TQM

Finally, the respondents were asked to comment on the implications of their approach to control for effective implementation of TQM programmes. Surprisingly, the majority of managers, in particular at senior and middle managerial levels, talked about control over the workforce as a means of achieving control over the work process, thereby reducing variation in overall performance. Indeed, some interviewees argued that control over the workforce in the context of TQM was made through process control. This, in turn, as one interviewee mentioned, had resulted in relatively positive TQM outcomes.

> My management team and I initially thought that we lost control over the workforce. But we then realised that all TQM-related control mechanisms were a means of comparison of the workforce performance with established standards and procedures in place. This, in turn, facilitated the achievement of TQM objectives. [Senior Manager – Manufacturing 2]

> The uptake of TQM initiatives has resulted in changes in our approach to controlling both work processes and the workforce. Since then, the overall productivity has relatively improved. [Senior Manager – Manufacturing 1]

> What I want to reiterate is that the essence of using TQM tools and techniques has helped our organisations to identify and avoid the variation in work processes and overall performance mainly through close monitoring the workforce performance [Senior Manager – Manufacturing 3]

Consistent with the above interviewees' quotes, other managers, in particular at middle and first line levels talked about the inseparable nature of work-related process control and workforce control. Indeed, those managers dealing with human resource issues confessed to the fact that their TQM programmes would not be regarded as having been effective until the work process control is accompanied by increased control over the workforce.

> Based on my work experience with large organisations, the concept of control or process control in TQM aims at luring hardworking and determined employees back to a culture of scientific management. Indeed, TQM success can be attributed to its use of various process control tools. [Middle Manager – Manufacturing 1]

> I personally do not see anything wrong with the control over the work process. The problem, however, lies in the way we appraise our workforce performance. Whatever happens, we attribute any inefficiency in our working processes to our employees, rather than any flaw in other systems or sub-systems of the organisation. [First line Manager – Manufacturing 2]
>
> Theoretically, control over the work process primarily deals with and handle the system-related factors. However, what we do in practice is that we establish a close correlation between TQM and controlling our workforce through creating standards and rules as a means of comparison, thereby identifying those employees who deviated from the established standards. [Middle Manager – Manufacturing 3]

It is, of course, true that the benefits of TQM will be realised through control over the process and that increased control over the workforce is not an aim of TQM. In practice, however, as the above evidence show, control over the workforce is clearly part of the process control. Despite the above relatively positive impact of various individual-based control mechanisms on the effectiveness of TQM programmes, it is argued that if this trend continues it will result in a high turnover of shopfloor employees. Some of the interviewees summarised the position by arguing that they had the highest rate of employee turnover in assembly and production line. Indeed, this was the position taken by those managers with a high concern for employee commitment. Such managers argued that if TQM meant to control the work process, the focus of the organisation's performance appraisal should be on systems-level factors – as opposed to individual employee. However, based on our evidence, it appears that the uptake of TQM has not changed appraising performance practices over the last two decades (see Bowman, 1994; Soltani *et al.*, 2006). Thus, a critical area, but one that is emphasised is the matching of human resource strategies to TQM. For TQM to be effective it is essential that personnel strategies reinforce the quality message rather than pulling in another direction (Torrington and Hall, 1998).

Discussion and Conclusion

The purpose of this paper has been to provide a synoptic picture of managerial orientations toward the concept of control in the context of TQM and its implications for its success or failure. From our study

of the three case studies, we have learned that the majority of managers of TQM-driven organisations at various organisational levels see no difference or relatively little difference between the TQM desirable type of control –i.e. process control – and control over the workforce. Our findings support the labour process perspective in that control appears to mean the exercise of power that rests with management and therefore is still in their hands (see Godfrey *et al*., 1997, p. 558). Such evidence also exhibits a similarity with some of the views expressed by HRM/IR professionals and could be regarded as a reason for low effectiveness of TQM programmes in the long term (see Redman and Grieves, 1999). The significance of this evidence is at least two-fold. First, TQM researchers and specialists have tended to attribute the TQM low effectiveness and failure to factors such as a lack of integration between quality management and everyday business practices (see Guptara, 1994; Chang, 1993), difficulty in winning managerial commitment (Choi and Behling, 1997; Wilkinson *et al*., 1992; Soltani, 2005), problems of adapting HR practices to support TQM (Delbridge, 1995; Soltani *et al*. , 2005), the effects of recession and restructuring (Redman *et al*., 1996; Jones, 1997), and the poor implementation – to name but a few (see for further details, Redman and Grieves, 1999). However, the evidence reported here implies that the (mis)use of control instead of process control in the name of TQM could be a major determinant of TQM long term failure. As such, our evidence are closer to 'drive in fear' as opposed to Deming's (1986) suggestion that organisations should encourage effective two way communication and other means to 'drive out fear' throughout the organization so that everybody may work effectively and more productively for the company.

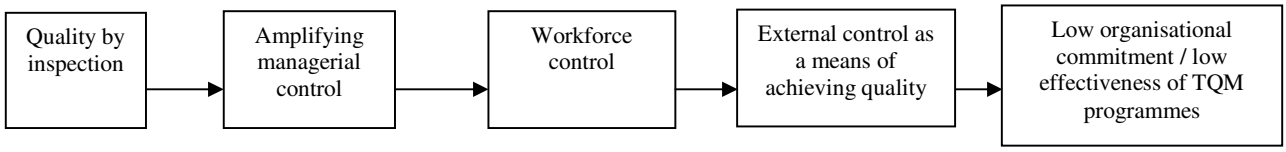
Second, when examining the TQM failure researchers have tended to emphasise that managers at middle and first line levels seem to be less than fully supportive of the introduction of TQM (Rees, 1995; Marchington *et al*., 1992; Redman and Grieves, 1999). In addition to this conflict among various managerial levels, our research findings were somewhat different. To fill the gap between such apparent conflicts in management's orientations toward TQM, the majority of middle and first line managers in the three case organisations seemed to resolve this by exerting greater control over the

workforce. Put simply, inconsistent with previous research both managers at middle and first line levels did not seem to feel under threat from the empowerment of shopfloor employees, rather they had tried to overcome the apparent conflict in their interest with that of senior management by amplifying various control mechanisms and tools in the name of TQM. Indeed, there were much fewer mentions at the middle and first line levels of the long term effectiveness of TQM programmes in their organisations. Instead, the majority of interviewees at the three cases were quick to point out short term successes of their TQM programmes primarily due to as Beer put it, "meta-control mechanism". However, as Choi and Behling (1997, p. 45) pointed out, TQM can be considered a success only when it moves the firm to a substantially higher level of performance. That is, TQM practices must improve quality performance through systematic and persistent application of TQM (Garvin, 1995), rather than through a traditional individual-based control approach to managing quality.

In short, our research findings suggest an inextricable link between the application of TQM and the increased control over the workforce. The primarily characteristics of the current management's approaches to control in the three case organisations can be summarised in Figure 1.

Figure 1.

The implications of a traditional individual-based approach to controlling TQM programmes



In the light of the above analysis, it might be assumed that managing TQM organisations is mainly concerned with control over the workforce – as opposed to control over the work processes. Our research evidence also suggests that there has been a gap between the TQM's espousal of, as Wilkinson *et al*. (1997, p. 800) put it, " liberating" on the on hand and the reality of "controlling" on the other hand, and between TQM's espousal of "commitment" on the on hand and the reality of "compliance"

on the other hand. Finally, although our findings may offer a more typical account of the reality of TQM, much work remains to be done in casting light on how to make most of promised TQM benefits.

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