QUALITY MANAGEMENT 25 YEARS ON: WHAT CAN WE LEARN ABOUT INITIATIVES IN CONSTRUCTION?

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The British Construction industry has a history of initiatives, which have been promoted to improve it. Seldom is there a reflection from a historical perspective of these developments, merely a restatement of the recurring failings. In 1979 the British standard BS 5750, a management system to assure customers that what they receive was consistent, was introduced. This paper seeks to derive learning from the developments and implementation of this over the last 25years. A number of quality managers in the Midlands were interviewed to reflect on and relate their experiences and to establish whether they had achieved improvement in this time. The results show that there was, and still is, a number of contradictions in initiatives, in particular, that between bureaucratic control and people management. The reservations that many had about the use of formal Quality Assurance in the 1980s, can be seen in recent initiatives such as benchmarking in *Rethinking Construction* in 1998. The developments in TQM following the former and Respect for People following the latter demonstrate the dynamic character of these initiatives within the circumstances of their time. Organisations recognised that the fundamental element of quality or performance is people and that by investing in them, long-term and sustainable improvement can be ensured. The learning is that initiatives are contradictory but require an ability to work with this in order to drive change but take people along.

Keywords: Quality, Improvement, Culture, Management.

INTRODUCTION

Every government report on the British construction industry since the war has bemoaned its failings and suggested initiatives for its improvement (Langford and Murray 2003). The industry seems very recalcitrant to such initiatives and to change in general, yet few studies track how these initiatives have been received and what actually happens when they are introduced and developed in practice in non-demonstration cases. Although not introduced into construction as a result of a government report, the quality movement in the form of the British Standard BS5750 was heralded as the progenitor of radical change in practice and a consequent improvement

BS 5750 was introduced in 1979. Although the original intention of this standard has been subject to debate, it is accepted that it provided guidance for organisations in how consideration could be given to introducing a management system to assure customers that what they receive is consistent. However, as commentators on quality have observed, whilst consistency may have increased, quality (if viewed in terms of improvement) was not necessarily increased by BS 5750 (or it's successor ISO 9000).

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Construction organisations, like those in all other sectors have discovered that formal QA (Quality Assurance) using BS 5750 presaged the development of a long phase in "quality" and that there is definite evidence of the way that improvement in many aspects of the process of construction has occurred.
The paper follows this historical journey through of quality management in the construction industry. The journey starts with BS5750 and Quality Assurance (QA), moves through Total Quality Management (TQM) and rests at the moment with Respect for People initiative of the Egan Agenda. These are all initiatives of their time placed into a British and construction industry context. They are mirrored by similar initiatives in other sectors and in other countries but the idiosyncrasies of their implementation in construction draws out their significance. In particular the paper focuses on ***contradictions*** both in the implementation and development of these initiatives. From this, the paper addresses what the catalysts of change are and what can be learned from initiatives.

METHODOLOGY

The research involved taking these questions into a number of organisations that we have regular contact with and talking to those involved in what is generically referred to as 'quality management'. These people had experienced and were continuing to experience what these quality initiatives really meant in practice. We have tried to use these peoples' own words to relate the developments of quality management in practice. This was very much a naturalistic inquiry in which "the necessity is to investigate human action in its natural or everyday setting" (Gill and Johnson, 1997:177).
The stance of this paper is that understanding develops from knowledge collected during events as they occur. Data that emerged during this research was entirely shaped by the particular interrelationships that existed in the three organisations studied. These interrelationships were entirely dependent upon the time and place that the players found themselves in. Moreover, their approach to what they believe goes on around them is determined by their own personal belief systems.
The discussion that we have put around these and the induction of explanation has this subjectivity. The value is in assisting us to learn from experience. They are not, per se, intended to be read as direct criticism of the desire to improve construction, rather to provide understanding of why change is not happening as speedily as had been predicted by some; most notably the authors of Rethinking Construction (1998).

QA 'THE FIRST STEP TOWARDS QUALITY'

The following two quotes exemplify the feelings about the industry 25 years ago and why quality assurance was heralded to improve things:

> "When you think where this industry was twenty five years ago, we were in the dark ages. I here the line about the good old days. What you have to ask these people is what were the cars they drove like then. If they are honest they will tell you that they were, certainly if they were built around here [The Midlands] crap. Then ask what they now drive is like. That's tells it all. Car manufacturing has shown us the way. If we as an industry cannot respond we will be overtaken by those who can."

> "There is no doubt that quality assurance was the catalyst for change. Before that, there was a belief that we did what we did and if the client complained we argued that was as good as we could as we could do. The reality was that there

> was, and still is [his emphasis], some pretty shoddy work done. QA allowed us to exert influence over some of the worst subcontractors. Don't get me wrong, I hate the additional paperwork that is needed. The thing is, it also allows you to wave it as a 'stick' to say, 'Don't blame me, I have to follow the system. There may be some who argue that you can get quality without QA. In this industry we had to go through it to deal improve what we produce." A site manager

The origins of BS 5750 in 1979 are reported elsewhere (Morrison, 1994; McCabe, 1998). However, it is worth remembering that its introduction heralded the establishment of 'quality' in a way that forced organisations to formally address its methods of production and administrative systems. The need to be accredited to BS 5750 meant that organisations were forced to allow specialist third party assessors to inspect their systems for controlling operations. To ignore the 'BS 5750 bandwagon' was viewed as something that no sensible organisation could do; most especially if you depended on clients who demanded it. Government provided leadership by requiring that organisations supplying products and services to various agencies must be accredited to the standard, in order to continue such with trading relationships. Because many construction firms, particularly those that were larger, procure business from government, it was inevitable that many firms implemented QA. For an industry that prided itself on 'action rather systems' (to quote one of those interviewed), this necessitated the installation of a level of bureaucracy that was alien, to most operating on domestic construction work, as opposed to, for example, nuclear installations. It is perhaps this that caused the alarm that accompanied the introduction of BS 5750 into construction in the 1980s. One site manager described his experience as follows:

> "It was a nightmare. We were told that the decision to go for 5750 had been taken for sound business reasons. That was fair enough. The trouble was, those who are at the 'sharp-end' [site] were not consulted. We got a box full of manuals and procedures and, apart from a briefing course at head office were instructed to get on with it.
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> What annoyed us most was you'd get audits from head office to see whether you were adhering to it. That's where it really got 'heavy'. Some were given the impression that unless they did what they were told they would be sacked. I can tell you, in one or two cases, it got nasty."

This draws out our first contradiction. In the UK, initiatives are commonly of the form of rational procedures and bureaucratic control, as was certainly the case with quality assurance and BS5750. As such there was an inbuilt contradiction with people, in that it is people that have to implement and operate such procedures and that these were imposed from the hierarchy. Because of this, there was opposition to the imposition of the initiative and it could be said that this: reduced trust in the process, elongated the implementation, and made the transition towards subsequent 'people-centric' quality initiatives more difficult. However, there is some contradiction about whether QA helped or hindered subsequent developments in TQM
One manager who was interviewed stated the following:

> "There were many [in his organisation] who believed that quality would be a 'five minute wonder'. They thought that all that was required was to implement any quality system that would give the impression of doing things differently and try to convince themselves that they had become better. They

> now know that this was not just incredibly naive but stupid. If you want to do it at all, you might as well do it properly. That takes greater effort, for sure, but the benefits are worth it."

Although QA also introduced the idea of not just being efficient but, crucially, able to demonstrate to customers their commitment to customer service and value, this realisation was not universal in the organisations. If there is hierarchical pressure to implement an initiative, this gets agreed on the surface but deep in the organisation there is merely a perfunctory response. Indeed the rhetoric of the organisation is for the initiative but in reality the operation of the organisation has not changed. There are advocates and dissenters who wage a non explicit battle, taking opportunities to score points off each other but not really improving practice. This cynical attitude is part of the resistance to change but also part of a failure to really engage with people.
The response of some in the organisation was to search for more people centred approaches to quality, as one manager revealed:

> "When we had a new manager in the quality department who said that he wanted to attempt to implement this thing called 'total quality' there were many I know who felt that this was just going to be even more paper to deal with."

This company had now developed systems based upon total quality management which, the manager admitted, he found much easier to cope with. However, he believed that peoples' experience of the implementation of QA had made them suspicious of TQ.
However others saw that QA induced a positive climate for change. The transition towards quality based upon the inclusion of peoples' desire to improve how they did things has been achieved by moving from the formality of QA to the apparent informality of TQ. As one quality manager put it:

> "That's the way it worked in this country. If I had come along and started explaining that the firm wanted to create a system of managing that relied on goodwill and the need to develop better relationships with subbies and suppliers they'd have laughed at me. At the time there was no argument. We had been told to get QA and we got it. Those who knew how things worked here realised that no resistance would be tolerated. I have no doubt that a few heads were 'banged' in the process.
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> Working with people is all based on psychology. Once you've done the softening up, it makes getting the next stage much easier. When it was suggested that we'd adopt a softer approach to quality, people were suspicious until they realised it would work in their favour. By that time dealing with QA had kind of become second nature."

This sentiment was one that others made – albeit less explicitly; that the 'journey' to TQ was well served by the apparent pain that the introduction of QA had caused. Moreover, as was strongly suggested on a number of occasions, the traditional culture of construction had been one that, wherever possible, ignored formal systems of managing day-to-day activities; even where they were based on demonstrable good practice!
QA, it seems, was a peculiarly British way of attempting to improve quality in the 1980s. As many proclaimed, there was an alternative and, crucially, it had been shown to produce remarkable results elsewhere.

TQM IN THE UK

The revival of British manufacturing since the 1970s is well documented (see, for instance, Ferry, 1993, and Teare et al, 1994). As these commentators tend to suggest, the rehabilitation of British manufacturing was predicated on a desire to match the achievements of Far Eastern (Japanese) competitors, some of whom, were involved in inward investment. The most obvious examples of this tendency were found in the automotive and electronic sector. What British producers discovered, was that overseas competitors could provide an alternative that was not only cheaper but, crucially, that it performed to levels of consistency previously unheard of. Accordingly, Total Quality Management (TQM) evolved as a means by which to institute principles that might enable an organisation to achieve quality standards comparable to the Japanese.

If implementing procedures was all that was required, then becoming as excellent as the Japanese would have, in all likelihood, been a straightforward matter. However, in studying TQM it is notable how advocates avoid hard definitions, in contrast and contradiction to QA. For example, take the definition that the British Standards Institute (BSI) use:

TQM is a management approach, centred on quality, based on the participation of all members and aiming at long-term success through customer satisfaction (BSI, 1995:27)

This is, of course, an ambition that all organisations would claim to subscribe to. The difficulty, as many discover, is translating words into meaningful action. Moreover, as those who read texts dedicated to TQM realise, the message is that simply instituting systems to control are unlikely to produce change that will engender a different attitude. What underpins such sentiment is the belief that what is really required is to create conditions that will cause culture to change:

[In order to promote TQM it is necessary] to go some way towards promoting a culture where people feel free to contribute their ideas, where improvement in problem solving and decision making is the norm. (Atkinson, 1990:55)

This was expressed by a quality manager, so:

> “A great deal of time and effort was spent on getting QA. This meant a lot of procedures were written, some of which were good, some of which were too cumbersome. Therefore, when the decision was taken that we were going to go for TQ, I was personally very happy because it would allow me to try and address some of the problems that the legacy of QA had left
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> “What I wanted to do was to get everyone here to realise that the procedures are there to assist them to do their day-to-day jobs more effectively. Improvement, I stressed was the key word. If they believed that a procedure was not allowing them to do things better, then that’s fine. All I would ask them to do is to provide some sort of descriptor that would show the main elements in any task they carry out.

That employees are crucial is the message that becomes apparent when consulting material that explains how certain Japanese organisations managed to achieve levels of quality that allows some to claim they are pre-eminent. Despite recent debate about the economic rise and fall of post second-world war Japan, there is unanimity as to the original stimulus; the influence of American management experts Drs. Deming and Juran.

However, even TQM has a contradiction, in the period that followed the Japenese surrender, General MacArthur, as commander of American forces decided to dismiss

those senior and middle managers who had been in charge of companies during the war. Therefore, those new – and inexperienced – managers who listened to lectures presented by Deming and Juran proved to be 'fertile' to the message that improvement in quality could be achieved by the use of statistical process control by employees at every level; most especially those on the shop floor. Thus, being people centred only referred to people with the right attitude not to everyone. Similarly, one construction quality manager, who implemented TQM and culture change, also believed that you had to get rid of people who were resistant to this culture change, responded:

> "You had to change the man or change the man"

In addition, as Deming in particular stressed, post war Japanese managers were in crisis and had nothing to lose by implementing radical solutions. It is the contention of many commentators on British construction that there was not enough awareness of just how much needed to be done to improve it's reputation; that is, the feeling of crisis was never sufficient to induce real change.

CHANGE IN CONSTRUCTION PROCEDURES TO PEOPLE

What we have perceived with the introduction QA and the subsequent accession of TQM, appears to be a norm with the establishment of initiatives in construction. The initial initiative is procedural and economically led. There is an attempt to induce a crisis as a way of forcing change led by the government. This is also initiated top down in any organisation which causes a superficial engagement with the initiative in which some individuals are seen as advocates and others are seen as dissenters. In order to move change on, some agent who sees a wider picture searches for a people centred approach to the same problem. In this there is a change of emphasis but also often a change of meaning which is hidden.

The Rethinking Construction initiative (Egan, 1998) can be seen similarly. It did not pretend to present an idealised view of how construction might change. Instead, it argued that change was no longer optional, i.e. the inducement of a crisis. Thus, for example, it stated that even though the authors believed that there were examples of excellence, 'there is no doubt that substantial improvements in quality and efficiency are possible' (ibid:5). The Task Force identified five key drivers for change: committed leadership; a focus on the customer; integrated processes and teams; a quality driven agenda; and, commitment to people. Much of its drive was in setting annual targets for improvement and instigating benchmarking, thus this report was adopting hard procedural means which it believed would lead to rapid and demonstrable change. Accordingly, construction organisations were faced with the prospect of clients who would refer to a report that indicated it could procure end products and services that could be potentially cheaper, faster and to a higher quality. Although mentioning a commitment to people, it did not place this centrally to its agenda. Ball(1988:217), in his economic treatise on the British construction industry, would see this as the general belief that technology is to blame for its poor image, rather than the way that it is organised. There is a tradition in construction, he contends, by which people are treated in such a way as to indicate that their long-term development is considered unimportant. This is a view that has received much attention in the last decade. As a succession of reports on construction argue, the transformation of other sectors of industry was achieved by an attitude to people that relied on investing in their development through continuous education and training. As one of our managers comments:

> "The last thirty or so years was a disaster for this industry. Everyone was treated in a way that made them believe that the dog-eat-dog attitude was ok. It was all short-term obsession with survival. No-one trained if they could get away with it. Now we cannot get good people at any level. If you can get them they demand an 'arm and a leg'. What I believe has to happen now is widespread culture change that means we see each other as partners in improvement."

A number of developments have resulted as a consequence of Rethinking Construction. For example, 'Respect for People' (launched in 2002) is the most obviously explicit recognition that improvement must be based upon the input of those who work in the industry. As such this development can be viewed as the similar to the introduction of TQ in construction.

The respect for people initiative is one that acknowledges how poorly construction has become in the way that workers (both professional and operative), have been treated. As many assert, there is not only a strong moral position to this, there is also a very strong business case.

"Respect for People is about showing respect to our workforce, while simultaneously winning respect from them and from the general public. The results will benefit everyone. […] To improve performance, it is important to involve, engage and empower everyone in the process. Without this, profitability will not improve and business will not be won." (www.rethinkingconstruction.org/rc/respect/)

Many construction firms have attempted to make the transition towards management that is based upon creating opportunities for improvement and value. As such, there are, even within the relatively small number of firms that we collaborated with for this paper, a number of initiatives being undertaken. For example, almost all have implemented 'Investors in People' as a method to demonstrate their commitment to total quality. A smaller number have embarked implementation of the EFQM [European Foundation for Quality Management] Excellence Model as the means by which to develop and, more particularly, benchmark their success. One has considered how it might apply the principles of lean construction to reduce waste.

Asked to explain what these benefits are he replied:

> "Firstly, if you use quality properly you can start to target areas such as waste which, everyone knows, is massive in this industry. The figures quoted vary but, if you assume that we waste at least ten to fifteen percent, and that's conservative, that represents a great deal of money that you can use to either boost profit and increase training. Once you are into that 'zone' you don't need to convince people."

Asked how far into this 'zone' he was, he was more evasive and simply replied that 'a great deal more work needed to be done.' Another manager concerned with improvement told us that her organisation had been through QA, TQM and now was concentrating on implementing EFQM:

> "EFQM has been built on the discipline that we have brought to the way that we control processes. What we have also had to do is to ensure that people see their role as being inter-linked to each other. If we are to make it successful we want everyone in this company to see their task as being dedicated to maximising customer value. That way we all benefit."

DISCUSSION AND CONCLUSIONS

Construction has, undoubtedly, made many efforts to change the way that it operates and, more especially, to increase the level of client satisfaction since the introduction of BS 5750 in 1979. This, of course, is commendable. As to how much could have been achieved without QA is debatable. As has been suggested, there is a severe danger of 'quality-fatigue' from the plethora of initiatives that have been introduced. The reality is, all within practice accepts, that improvement is constant. Perhaps this paper is best summed up by the following statement from one of those we interviewed:

> "I've seen many quality initiatives over the last few years. The trouble is, everyone thinks that we've done 'quality'. The reality is that there is a complacency now that work is plentiful. My view is that in the future those that can really achieve high levels of consistency and value will be the best placed to survive. That's what has happened in manufacturing. Construction, by and large, talks about quality but, if we're honest, despite being a lot better than it used to be, still has a long way to go." A quality manager in a large contracting firm interviewed

This paper has followed the 25 year journey of a major initiative (quality movement) to improve the construction industry. Through individuals' accounts of the experience of this journey, it has determined that the journey was not as anticipated and that it was exemplified by contradiction. Initiatives are born of a belief that change results from goal directed action that force organisations and employees to change. It appears a fact that the outcomes seldom match the goals. Also the time frame is much longer than expected to show signs of effect. In the UK, initiatives are commonly of the form of rational procedures and bureaucratic control. This was certainly the case with quality assurance and BS5750. As such there is an inbuilt contradiction with people, in that it is people that have to implement and operate such procedures. Because of this, there are always opposition to the imposition of the initiative. There are calls for people centred approaches to the same goals in this case Total Quality Management. These two forms of an initiative are in contradiction because of their differing objectives and control mechanism even though they purport to deliver the same goals. Unfulfilled objectives are often blamed on the lack of attention to the other. Thus for QA there was a call for a change in culture. That QA had a positive effect on the industry is undeniable but this can be seen more from it inducing a greater acceptance of less bureaucratic and people centred initiatives (i.e. softening the ground) and also from removing the old guard (change the person or change the person). Equally when people centred approaches do not deliver there is a response to increase procedures and audit compliance. These contradictions in operation appear part of the history of initiative and may be seen as rhetorical as much as real (Gowler and Legge, 1996). In addition, this appears a peculiarly British approach and may be regarded as part of its belief in adhocracy (Mintzberg and Quinn 1988) whilst having a history of tortuous industrial relations. The fact that others perform differently in the face of the initiative is used as part of the pressure to implement the initiative and presented as a threat to people from imported labour or from organisational competition from abroad. The calls for the change in culture seldom translate to better industrial relations practices whether an investment in training, longer term employment contracts or a infrastructure of welfare.

This leaves us with a dilemma about whether initiatives work and what we can learn about improvement in the construction industry. If we see the move to the Respect for

People initiative as part of our quality management journey then the industry has learnt that people are important. Equally it can be seen that this is a function of its time when there is a shortage of skills within the industry (McCabe 2003). The EFQM model integrates all these dimensions and becomes its own field of contradiction. After 25 years every large and medium company in the industry has a quality procedures manual. The consistency of practice in these companies has been developed and improved to the benefit of the industry. This is triumphed by QA advocates as a positive feature of operations to be adhered to. It is also used by them to berate others. To these others who are not advocates, QA is seen as a bureaucratic imposition of the companies lack of trust in them as people; they want to get on with the job. Thus the contradiction is still there; it is used and abused depending on context. The learning is that initiatives are contradictory but require an ability to work with this in order to drive change but take people along.

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