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ACCOUNTING FOR MANAGEMENT AND MANAGING ACCOUNTING: REFLECTIONS ON RECENT CHANGES IN THE UK*

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ABSTRACT

This paper uses data derived from interviews carried out in a number of UK companies to explore the extent to which management concerns are driven by accounting practices, and also how accounting practices are mediated by the views that managers have of the role of accounting. The paper also analyses accounts given by UK managers of the ways in which changes in accounting are being managed. Two specific issues relating to accounting change are examined: (1) the impact of new information technology on accounting change, and (2) the competition between accounting and alternative bodies of expertise as mechanisms for change. In studying accounting in the context of wider organizational change, the paper focuses on a number of distinct, yet related, themes: (1) management accounting's power to reinvent itself; (2) the interface between management accounting practices and employee empowerment (as one example of 'new' management practices); and, (3) contradictions in using management accounting calculi to facilitate the 'new' organization.

INTRODUCTION

Over the last two decades, management accounting in western economies has come under attack, by leading academics as well as practitioners and consultants, for failing to serve the emerging needs of businesses in a rapidly changing, global economy. This challenge has formed part of a broader re-evaluation of received management wisdom prompted by intensified competition and, in particular, the unexpected successes of Japanese and Pacific Rim companies in penetrating major western markets. For example, Drucker (1990), a leading management

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guru, has criticized conventional management accounting systems (MAS) for: (1) being based on the realities of the 1920s in focusing on direct labour costs which have now become a much smaller fraction of what they were then; (2) relatedly, quantifying the benefits of a change in process or in method predominantly in terms of savings in labour costs; (3) reporting only the costs of producing, and ignoring the costs of non-producing, even though it seems that the latter are of the same magnitude as the former; and (4) focusing on, and treating, the factory as an isolated entity in a way that ignores costs/benefits elsewhere in the company. For example, automation is invariably reported as a cost but never as a benefit. For management academics, as well as practising managers as we show later in the paper, there are demands for specific roles they expect accounting systems to play in modern organizations. Many management practices are construed to rely for their successful implementation on the availability of specific types of accounting information.

Similarly, in the sphere of management accounting, a two-pronged attack on its established forms has been spearheaded by academics-turned gurus. The first prong of the attack (Johnson and Kaplan, 1987; Kaplan, 1983, 1984) maintains that until the 1920s managers of most American enterprises focused on cost management and contends that, by then, management accounting systems (MAS) had developed the disciplines that were needed to run businesses successfully. By 1925, these authorities argue, virtually all management accounting practices that continued in use until the mid 1980s had been developed. The intervening 60 years are described as a period of stagnation, characterized by a gradual shift from an emphasis on cost management (evaluating the company's internalized processes using cost information) to cost accounting (calculating costs primarily for incorporation into financial accounts). In this process, the information provided by MAS became progressively less relevant to contemporary organizations. The effect on MAS of changes in manufacturing technology and improved information technology (culminating in the emergence of the 'factory of the future'), it is argued, was exacerbated further by the deregulation of public utilities, the increased intensity of local competition, and the collapse of protective barriers to entry in the face of sustained global competitive pressure. In short, during those decades of stagnation MAS *lost their relevance* as an aid to managers in the running of their businesses. Still, for such authorities, these deficiencies do not render MAS a lost cause. Instead, it is claimed that MAS can, and must, *regain* relevance by refocusing attention on cost management. For them, the solution is to revitalize MAS by realigning its systems to the strategy of the organization, and by responding to the opportunities created by the new technology, the new forms of corporate ownership emanating from deregulation of service industries, and the much improved and more competitive financial markets.

The second prong of the attack (Johnson, 1994) asserts that MAS have *never* been relevant to the efficient running of business organizations:

> . . . accounting systems were capable of distorting product costs nearly as much in the early 1900s as they did after World War II. Moreover, accounting reports were no more timely in the 1920s than they were in the 1970s. (Johnson, 1994, p. 261)

And hence

> *Relevance was not lost by using improper information to manage; it was lost by improperly using accounting information to manage.* (Johnson, 1994, p. 262; emphasis in original)

MAS are criticized for striving to manage results rather than contributing to the managing of processes. Johnson's remedy is to *replace* the use of MAS with total quality management (TQM) for the purposes of decision making. *Inter alia*, TQM is championed by Johnson because it seeks to manage processes by shifting the emphasis from top-down control to bottom-up empowerment. It is argued that employees' potential is released by enabling them to exercise discretion in dealing with emerging problems without being unduly frustrated by financial and bureaucratic constraints.

It is not the intention of this paper to assess the detailed arguments of such attacks on management accounting (see Ezzamel, 1994b; Ezzamel et al., 1990; Yuthas and Tinker, 1994). It is, however, pertinent to note what these attacks share. First, each prong is motivated by a problem-solving approach, and each fails to problematize many received wisdoms, such as the accepted diagnoses of lost competitiveness and the associated plausibility of the proposed remedies. Second, and of more direct consequence for our present concerns, accounting is represented as reduced to a set of technicist activities that can be manipulated, and in Johnson's case disbanded, at will. Accounting as a social and organizational practice is thus stripped down to its crudest, and most mundane skeletal form. Missed is an opportunity to examine the constitutive power of accounting that renders it enduring and (on occasion) endearing (Ezzamel, 1994a; Ezzamel and Bourn, 1990; Ezzamel and Hoskin, 1991). In contrast to the critics of management accounting who are preoccupied with questions of how to modify or abolish it, we are concerned with the extent to which management accounting endures in situations of organizational change and in the face of competition from other bodies of managerial expertise. This we try to relate to the demands made by modern managers on accounting.

Our approach to these questions is through data derived from interviews carried out in a number of UK companies. For our informants, accounting could be taken to mean somewhat different things: some focus exclusively on bookkeeping issues while others may refer to broader management information provision. Such differences as may arise help to remind us that as a socially constructed discourse, accounting practices are both problematical and contested. In the context of this paper, there are two specific issues relating to accounting change to which we wish to draw attention. First, new developments in information technology could potentially have major consequences for the organization of the accounting function as well as for the nature of the accounting information provided. Second, change situations, such as those faced by the companies where the interviews reported in this paper were held, tend to promote diverse and competing change mechanisms underpinned by alternative bodies of expertise. As our main concern here is with accounting in its organizational context, it is of crucial importance for us to examine the extent to which other disciplines – for example, total quality management – are mobilized and presented in change situations as being more relevant than accounting for attaining commercial success.

The remainder of the paper is organized as follows. In the following section we consider how, in practice, management accounting has come under attack and the extent to, and manner in, which it has reacted to such attacks. Our concern here is not whether accounting has lost its relevance as a means of control, but rather to explore accounting's power to sustain, and even enhance, its importance. We then focus more specifically on the role of management accounting in the development of more 'empowered' employees. In addition to exploring the relationship between empowerment and accountability, we highlight some contradictions in using accounting calculi to facilitate the 'new' organization. This leads into a discussion section where we suggest that, somewhat perversely, accounting is frequently identified as the most reliable and effective means of ensuring that empowerment is harnessed to the accomplishment of corporate agendas.

MANAGEMENT ACCOUNTING AND CHANGE

The appeals made by Kaplan (1983, 1984), Johnson and Kaplan (1987) and Drucker (1990) provided a powerful impetus for a number of researchers to investigate the extent to which management accounting practices were changing in response to changes in work and information technologies, as well as to changes in the wider organizational environment as manifest in more intensified local and global competitions. Much of that investigation has surveyed current management accounting practices and sought to identify which practices were innovations similar to those promoted by academic gurus – such as activity-based costing; back-flush accounting; target costing; zero-inventory and zero defect policies (e.g. Bromwich and Bhimani, 1989; Coates and Longden, 1989; Innes and Mitchell, 1989; Littler and Sweeting, 1989). This line of research has provided many useful insights into the extent to which contemporary management accounting practices correspond to the 'best' accounting practices proposed by the gurus. The emerging general conclusion appears to be one of small correspondence between the two. However, much of this research also follows in the footsteps of the theoretical underpinnings of the work of academic gurus. Observed changes in management accounting practices are likewise viewed as a response to the needs for improving the economic efficiency and competitive edge of business. Lack of change in accounting practices is presented as being not only detrimental to business interests but also threatening to corporate survival. Little or no attempt is made to step outside the conventional functionalist focus of the academic gurus in a way that may illuminate or problematize the persistence of many old accounting practices over time.

In contrast to that conventional tradition, Miller and O'Leary (1993) have developed the notion of the 'politics of the product' as an organizing slogan for examining the diverse discourses, including those of management accounting, that have emerged and competed to represent the translation of raw materials and human labour power into goods and services. Product politics, they argue, have interrelated elements: (1) a problematizing activity through which accounting, among other technologies of representation, is linked to the operation of the factory and to the manufacture of products; (2) a programmatic terrain that articulates and promotes new ways of acting on the factory and the product in a manner that aspires to eliminate recognized deficiencies; and (3) operable technologies that are capable of translating programmes to the factory level to improve the product by intervening in the manufacturing process.

It is through this triptych of problematizations, programmes and technologies that Miller and O'Leary (1993) seek to understand the 'significance of the politics of the product in relation to accounting' (p. 190). The politics of the product framework is intended to provide a means of understanding *why* accounting's relevance to the factory and to the product has been questioned. First, it is suggested that, historically, expert managers of 'tall' hierarchies were drawn to the precision of a calculus that could guide their decision making. This abstract calculus now stands accused of rendering managers remote from the 'real world', as reflected, for example, in their neglect of tangible results and inappropriate knowledge of the product and the factory. Associated with this accusation is the call to correct this deficiency because 'it has blurred a crucial distinction between an accounting *for* financial magnitudes, essential to financial policies and strategies, and the fraught attempt to *represent* physical production processes in financial terms' (p. 197). Secondly, it is contended that the technologies of accounting for manufacturing have become obsolete. As a consequence of these limitations, Miller and O'Leary argue, the privileged role of accounting in organizations has been called into doubt: new ways of accounting are now being demanded, ways that break away from the past. In the place of the old methods, accounting practices that are intended to secure the excellence of the factory and the product are developed:

> Excellent accounting helps to open up these fields of visibility and modes of dialogue in which activities, no matter how spatially remote from the factory, are pondered upon and judged in terms of the value they add to the product. ... *Novel accountings are to help give visibility to a myriad of activities* – 'establishing vendor relations, purchasing, receiving, disbursing, setting up a machine' (Turney, 1989, p. 25) – that are to be the objects of the continual pragmatic innovation that the new economic citizenship is seen to require'. (pp. 200–1; our emphasis)

The strength of the perspective adopted by Miller and O'Leary lies in its concern to understand current attempts to 'reform' accounting as something more than a technical means for gaining better representations of new manufacturing technology. In Miller and O'Leary's analysis, these techniques are embedded in an appreciation of broader changes in corporate governance – for example, the increased attention being given to the management of supply chains and customer care. Accounting is 'politicized' explicitly by situating its fate in relation to the product, the factory, and emerging modes of governance.

Our main concern in this paper, however, is to explore the extent to which management accounting practices endure over time, notwithstanding criticisms, primarily through self-perpetuating themselves. Specifically, we wish to examine how, if at all, embedded accounting practices constrain efforts to change them.

We also seek to explore some scenarios, even in those cases where accounting is seen to be changing to overcome identified deficiencies of established practices, in which many, but by no means all, of the 'new' solutions tend to come from within accounting. Our purpose in doing this is to gain some appreciation of what makes accounting adept at surviving in the face of fierce criticism. We explore more fully the Miller and O'Leary thesis that accounting plays a crucial role in rendering organizational activities and technologies (more) visible. In doing this, accounting simultaneously establishes and reaffirms its centrality by providing visibility in financial terms, thereby renewing rather than weakening its central role in defining and delivering the commercial interests of business.

It is accounting's continuing command of a position of pivotal importance in the new workplace – even when it is simultaneously the subject of 'bad press', perplexing as this may be – that presents one of the most intriguing questions to management accounting researchers. In seeking to shed some light on this conundrum, we draw on our recent research on changes in management practices in UK companies. The method of investigation initially involved collecting responses to a lengthy mailed questionnaire from 130 of *The Times* 1000 companies. This was followed by a series of semi-structured interviews of up to four senior and middle managers in 27 companies selected from those who responded to our questionnaire. Subsequently, this research has been extended further through detailed case studies on the relations between accounting and organizational change in six more organizations. It is primarily the interview material collected from the 33 organizations that informs and illustrates the arguments of this paper. Twenty-four of the companies in which we held interviews came from manufacturing, which covered a wide range of activities such as garments and home furnishings, control instruments, high-tech, chemicals and pharmaceutical, glass, steel, heavy equipment, etc. Company size as measured by annual sales revenue ranged from 30 million pounds at the bottom end of the scale to over one billion pounds. The remaining companies came from financial services (6), utilities (2) and extractive (1) industries, all of which are very large.

The presentation of interview material in a paper such as this involves elements of both description and explanation of the accounts given by informants. While recognizing the problems of separating description from explanation, for the way certain descriptions are given can affect their means of explanation just as the eagerness to stick to some explanations can influence the way the interview material is described, the preliminary nature of our investigation has resulted in us placing relatively more emphasis on description compared to explanation. Given the limitations posed by our wide-ranging empirical investigation, we have attempted wherever possible to offer explanations of some of the accounts given by our informants. More complete explanations would hopefully be provided by future researchers focusing more specifically on fewer issues in a much smaller number of companies. On the positive side, the less structured and fairly broad approach we adopted in interviewing in a large number of companies coming from a variety of industries has enabled us to solicit many interesting accounts from our informants that should help our readers raise numerous research questions for future investigation.

ENDURING ACCOUNTING: PARRYING ATTACKS

Management Accounting Comes Under Attack

At the start of each of our interviews we did not ask explicit questions about accounting in general or its specific relations with our interviewees' organizations. None the less, accounting issues frequently emerged in the course of their reflections on recent organizational change. Once our interviewees raised such issues, they were quick to identify accounting problematics. Similar themes were identified by many of our informants but because of space limitation we can only mention a few here. For example, commenting on how accounting practices focus more on the past but not the future, the sales and marketing director in a manufacturer and assembler of control instrument machines said:

> 'Accounting has been used in our kind of companies as being a method of recording history and assessing the answer of the situation. It seems to me that accounting is that element of skill and capability that ought to be in a strategic stage and ought to be very much part of the planning. It should be a before the event contributor to the strategy.'

The old ways of doing accounting were perceived as being of little relevance to the new realities of the workplace:

> 'He [the accountant] can ... sit upstairs and crunch the numbers and simply give you a set of management accounts if you like which is reporting history, give you your statutory accounts and have them all audited and all this is lovely and tidy, and *has very little meaning in managing the business*.' (Manufacturing Director, automotives; our emphasis)

Criticisms of accounting voiced by this manager parallel the charge of accounting's remoteness from reality (cf. Miller and O'Leary's (1993) representation of criticism of accounting that led to managers' remoteness in the rhetoric of the 'politics of the product'). Despite, and indeed partially because of, its illustrious history, our interviewees consistently told us that accounting is coming under the critical microscope of the modern manager. When seeking to justify current accounting practices, it was no longer sufficient to invoke the weight of custom and practice, in the form of accounting's established position. For our informants past practices would survive only if they could be located and legitimised in the new discourses of flexibility and added-value. As another of our interviewees reflected:

> 'I believe that management accounting tries to put everything in boxes. ... I am not sure which is the cause and which is the effect. Perhaps it is the organization that was set up that way but management accounting has then sort of cast that in concrete and said, "That is the way you've got to report." So it has to be more flexible and there is no such thing as a fixed cost either. But it creates a lot of problems and equally everything ... marginal costing, variable costing, incremental costing, can get you in an awful lot of trouble as well. *The principles are fine but ... running the business on the basis of some fairly*

> *arbitrary allocation of costs, and they are arbitrary even though there might be some logic behind them, is very inappropriate.*' (Managing Director, agro-chemicals; our emphasis)

In the discourses of the managers we interviewed, flexibility is deemed to be of paramount importance for corporate survival. In this world, management accounting is perceived to be unhelpfully rigid; and accounting's rigidity is understood to translate into organization-wide rigidity as 'management by the accounting numbers' permeates and transcends all levels of the organization hierarchy. However, masked by such criticisms is an implicit acknowledgement by our informants of the power of accounting's subtle ability to perpetuate its own existence, despite their disillusionment with its relevance and appropriateness. Accounting is seen by them to generate 'tidy' information that can be audited and, hence, that derives its weight and legitimacy from its capacity to satisfy statutory requirements. Accounting is also recognized by these managers to have institutionalized its (professional) norms of representation in a way that has effectively removed and insulated it from the complexities and uncertainties associated with the practicalities of producing goods and providing services. And although it is important to recognize that there is a certain lack of real-world currency to the varied academic criticisms of accounting, it is equally important to note that extant sources of legitimation *are*, nevertheless, starting to come under increasing pressure.[1] In response to these developments, accounting has had to bend in order to avoid being broken or discarded. In the next section, we examine the extent to which the management accounting function is reported by our interviewees to have changed.

Changes in the Management Accounting Function and in the Functioning of Accounting

Our interviewees have suggested to us that a number of changes in the accounting function have occurred in their organizations. Consider as a starting point the following observations which point to a number of general changes in the management accounting function:

> 'I cast my mind back to when I was a cost analyst and the tools of my trade were a big sheet of analysis paper and a pencil with an eraser. Right? And now of course the guy's got Lotus or whatever he has and to be frank, whereas I used to be able to pride myself that I could do every job in the department cos I've done it, now I would have a job coming to terms with it. ... Whereas say 20 years ago I'd have had ten pricing analysts now I've only got two because their tools of the trade are so much slicker that they can get out the data much quicker.' (Executive Director, Finance, motor manufacturer)

Here, an interviewee reflects on how accounting is implicated in the new wave of management practice. Accounting is seen to be intertwined inescapably with the process of organizational change. Old ways of accounting and the conventional tools of the accounting craft are perceived to be redundant, in the wake of new technologies. The quote also points to two themes that we examine here; first the rationalization and reorganization of the accounting function in contemporary organizations, and second the possible changes in what is being calculated and how it is being calculated. Thus, the model of recent accounting transformation seems to operate at two levels: a significant reduction in accounting personnel, and a change in the nature of accounting (both in terms of *how* and *what* accounting is done) facilitated by new developments in information technology. The two modes seem to go hand in hand; new developments in information technology are seen by our informants to make possible savings in the accounting function. These shifts raise the interesting question of how far management accounting, as a distinctive practice, can survive the possible demise of the management accountant, as a distinctive and ubiquitous practitioner. Computerization seems to act as one vehicle for the instantiation of these shifts, principally through its representation as the latest solution to the ongoing 'problem' of the efficiency of operations. Even those companies that in the past had limited computerized information systems were actively exploring the scope for savings and for improving the accuracy and internal dissemination of information:

> 'We've eliminated a lot of duplication, a lot of unnecessary double handling of documentation etc. There's still more to go, that will happen when the computer systems come in.' (Managing Director, agro-chemicals)

Similarly, the production co-ordinator of a steel manufacturer lamented the inaccuracy of manually processed accounting information and suggested that in order to improve their accuracy: 'What we've gotta get is a database that has one set of figures that is agreeable by everyone so that once them figures are entered once, them figures shoot throughout the system.'

Top UK managers, including senior accountants, see scope for further reductions in accounting personnel. This is not just because 'bean counting' can be automated using new technology but because other disciplines were presented as being equally relevant for commercial success. As the financial controller of an agro-chemical company put it:

> 'We're not moving fast enough. You see, the UK is very accounting orientated and if you compare us to Germany or Japan, where the accounting profession is really a very small element of highly qualified people, I think we've got to move down that route a lot faster. And I think that causes a problem because you have the resentment within the accounting profession with CIMA, the certified and chartered accountants. Most boards are overflowing with accountants rather than anybody else, which is a crazy situation because you can't survive. And I believe that's one of the reasons why the economy in the UK is a mess, as an accountant [laughter].'

The automation of accounting functions has enabled the size of accounting departments to be slashed. Not atypical was the massive reduction of staff employed to process accounts payable in a motor manufacturer. Commenting on the capacity of new technology to re-engineer established business functions, the executive director of finance for this company remarked:

> 'In the early eighties we had about, God, not far short of a hundred people working in accounts payable, doing the traditional things, you know, matching the invoices with the purchase order and advice notes, paying the supplier.

And I went and I looked at [a comparable size Japanese car manufacturer] and I found they only had two people in their accounts payable department and we looked to see how they did it. They didn't have invoicing, they paid by ERS, which is the way they automatically credit the guy back with what he's delivered via the interbank computer bureau and straight through to a credit to his bank account. So we actually embarked upon that ourselves. ... Now the Japanese have gone one further and in fact they just credit the bank account not on the advice of what's come in the received bay, but based upon the production schedule on the release. ... I mean, they've gone even farther than we have dared to go. So I'm down to about just over 20 people in accounts payable, but I haven't got down to two.'

The above quotes highlight two relevant issues. First, they indicate how an economizing drive has been extended to the accounting function itself, a development that was occurring even prior to companies' investment in new information technology. Secondly, they highlight the strength of conviction, or at least hope, in the major advantages that were expected to accrue from the adoption of new information technology, including the generation of new types of accounting information. The operations manager in the above agro-chemicals company suggested that there is scope for additional advantages from the introduction of new information technology at the operational level.

'There is a company strategy to replace that IBM 38 with a networked system so we'd have, you know, better tools to do the job really. On the shop floor ... we already have instrument and control computation, computer equipment. In fact, one of the plants has a distributed control system so we'd link in those to this system. And also from the point of view of initiating maintenance requests and instructions, that would also be shop-floor work. And also we'd get probably time off requests, holiday requests, things like that on. That's about all from the shop-floor, most of it's for technical people and managers. Most of the plants have already got some sort of system where the energy consumption over raw materials usage is continually monitored and reported to the operators who then respond to that.'

In other companies that we visited, our interviewees reported changes in both how and what accounting is done. As expected, the use of modern information technology made it possible to perform the same accounting tasks more cheaply. But new accounting calculations were also being performed – for example, regular quantification and reporting of energy consumption, quantification of the cost of quality rejects, making more clear the contributions of key business segments to the performance of the company as a whole, etc. In this respect, it is possible to suggest that the (remaining) accounting function's successful colonization of much of the organizational deployment of information technology enabled accounting to defend itself (through managed self-sacrifice in the form of rationalization based on accounting calculation) while simultaneously increasing its purview (as indicated later) and hence reaffirming its centrality. The interview material suggests that the two types of change are interrelated; improved information technology has made it possible for new calculations to be performed;

and the ability to perform new calculations yields increased legitimacy to invest in information technology. Moreover, the demand for new information systems is seemingly triggered not only by restructuring the organization but also by the growth and complexity of activities. The strategic planning manager in an oil company commented on the greater flexibility and sophistication of information systems requirements that were revealed by the recent reorganization of the company into business units:

> 'There's certainly been an increased need, a higher proportion which is I think more to do with the growth and complexity of the business than the reorganization. The difficulty you have once you move to this level is that although you split yourself into business units you know basically on a day-to-day basis most things cross over more than one business unit and there is an increasing need to have multi-access to information and be able to transmit information around the organization.'

From the perspective of operations, the introduction of new information technology was presented by our informants as a major asset that will facilitate change on the shop-floor: promoting individual initiative; expediting operations; minimizing inputs of factors of production, including labour, for the same level of output; increasing awareness of, and facilitating the co-ordination of operations interdependence by networking individuals and groups within the organization. More generally, it is viewed by them as a powerful tool for extending the managerialist prerogative over corporate operations.

The reported changes in the accounting function and the emergence of some new accounting measures were often represented by our interviewees as examples of 'best' accounting practices which add value to their businesses. As accountants are gradually coming out of their 'ivory tower' and interacting more directly with managers at various company locations, our informants have suggested, the contribution of accounting to the constitution and successful implementation of the company's commercial agenda is becoming more visible (see also Ezzamel et al., 1994; Munro and Hatherley, 1993). For example, in commenting on the increasing financial focus in the roles played by accountants in his company, the group accountant of a garment manufacturer and retailer said:

> 'The basic recipe is one of commercial management as opposed to financial accounting. People like X [an accountant], will spend a lot of time working with the operational managers at his level within the business – not acting as a bureaucratic control but actually working with them to work out, you know, "How do we optimize the margin from these things? What is the optimal level of stock we should be buying to support the business?" ... and actually gaining a credibility every day by sitting down with those people and *adding value to the business*.' (our emphasis)

The idea of accounting as score keeping after the event, or the idea that accounting is nothing but a bureaucratic control activity remote from the everyday reality of the business, has been progressively discounted and displaced, at least by accounting staff (but note their self-interest), as a new identity for accounting – in this particular case one that emphasizes its commercial relevance and value – is constructed.

The accounts we have presented thus far are at once indicative of the changes in management practice in recent years and illustrative of the criticisms that have been targeted at conventional MAS. That alternatives to accounting have been demanded and promoted is unsurprising. What is more intriguing is that, on the evidence of our studies, the outcome is not the marginalizing, let alone abandonment of accounting. Evidence of the limited role of accounting in Germany and Japan seems to have been subtly translated, enabling numerically based management to find its way into even the most virgin territories of the 'new' organization such as TQM initiatives as we argue later. Certainly, routine accounting tasks have been automated, while other disciplines are being identified – by accountants as much as by other specialists – as necessary components of strategic management.

The Pervasiveness and Adaptability of Accounting

However, our informants have suggested that, in the main, accountants remain evidently influential despite any reductions in their numbers. In virtually all the companies we visited, the finance director was subordinate in influence only to the chief executive officer. Accounting staff are viewed in these companies as a major resource on which the emerging new organization is heavily dependent. For example, in identifying those key foundations in the company's future plans, the computer services manager in a steel manufacturer said: 'We have identified just over a hundred people that we feel have got an important role and play an important role in getting this new philosophy accepted in all areas and not just in the factory, but also in the management accounts and in the cost accounts [and] purchasing.'

Another demonstration of the power of accounting in the face of calls for change is that when 'solutions' for problems emerged from other bodies of managerial expertise and threatened to displace the central role of accounting, the response from accountants was not to dismiss these solutions but, rather, to show how accounting is critical for the effective definition and enactment of such alternative expertise. Either space was created for accounting to work side by side with the new solutions or attempts were made by accountants to apprehend the new solutions. One example of this concerns the strong emphasis placed by many companies on product quality and customer service through TQM. Thus, in commenting on whether TQM might eventually displace MAS, the group accountant of a garment manufacturer stated:

> 'Well, there's a place for both is the honest answer. I mean, I think process management is again something which we are very, very heavily involved in here [in] the finance function, the commercial function. ... In the quality programme one of the things you're doing is you're setting the performance indicators for tomorrow. But, you know, unless you're actually measuring the actual results, how do you know whether you've ever got there or indeed whether the goal posts have moved. So I think the two have got to work absolutely hand in hand but you've got to carry on measuring your business as well.'

Thus, to avert the threat posed by the introduction of TQM, accounting was quickly construed as being capable of process, rather than result, control and also as an ally to, rather than being superseded by, TQM. This particular garment manufacturer reorganized its manufacturing activities around teams where quality measures that were administered on the shop-floor by supervisors were derived from best production records kept in the accounting department and subsequently revised by quality assurance staff to reflect best practices in the industry. To ensure the attainment of these quality measures group performance was regularly measured and monitored by the factory accountants and team payment was synchronized with production quality and volume through a multiple skill-band reward system that was operated by the accounting staff.

Similarly, in other companies accounting was presented as being so inextricably linked to quality initiatives such that the earliest manifestations of new quality programmes are given expression and visibility through accounting:

> 'Quality is one of the prime things ... and this is becoming increasingly important from the customer's point of view. Because they are required to get it right first time and to work to higher levels of quality and in a sense it becomes the first bit of accounting, they measure it much more.' (Group Financial Director, steel industry)

Accounting practices have therefore been used, our informants have claimed, both to quantify the benefits/costs of quality initiatives and to report on the cost of quality failure in production once these initiatives are implemented. Even when there is a perceived need for new, non-traditional physical measures they are seemingly produced side by side with conventional management accounting information. As the manufacturing director in a steel producer commented. 'We are running the traditional management accounting practices, OK? Together with what I wanna see as a modern way of physically controlling the business.' Hence, when the contribution of accounting comes under attack, accountants have apparently been able to deflect or even reverse this challenge by demonstrating its relevance for the successful prosecution of new techniques and innovations. In this sense, accounting and accountants endure as accounting *practices* and rhetoric continue to be widely deployed. This suggests that as this occurs the credibility of senior accounting staff and, in particular, the genuineness of their specialism's commitment to commercial objectives can be greatly enhanced by their willingness to take the lead in offering their staff as targets for redundancy and rationalization. But reductions in the numbers of accounting personnel and effects of developments in information technology do not imply that accounting as a practice has been left on the sidelines, for the accounts given above by our informants in their diversity suggest that much of the conventional accounting information continues to be produced in addition to new types of information being demanded (e.g. the cost of quality rejects).

Even those informants who have been critical of accounting practices for always lagging behind other changes in the organization, or for simply being impervious to change, have not suggested that accounting should be displaced by such change. It is not just accountants but also other managers who assert that accounting is needed, at the very least, to support these changes rather than be erased by them. For example, the garments controller in a manufacturer/retailer said:

> 'Departments like our own are actually pushing change much faster than the finance people are being able to keep up with. . . . Until somebody screams about the way we're accounting for something, nothing happens.'

Similarly, the furnishings controller at the same company lamented the lack of interface between the accountants and other company staff: '[Although] we've got lots of accounts departments all over the place, [they] have really remained very much unchanged. . . . The sort of relationship we've had with the accountants has really remained very static.' He went on to suggest that a more active interface between the accounting function and his own department would be 'extremely useful'.

In the following section, we illustrate and further develop this understanding of the dynamics of accounting change as we focus more narrowly on the role of accounting in promoting and facilitating accountability and empowerment. These two themes provide additional contextual evidence on accounting's capacity for readjustment and its adeptness at survival.

ENDURING ACCOUNTING: EMPOWERMENT AND ACCOUNTABILITY

Accounting for Accountability

The drive towards greater levels of employee empowerment has been seen by the managers we interviewed to necessitate increased measures of accountability. For these managers, accountability and empowerment go hand in hand; if managers at all levels are to harvest the fruits of self-autonomy and individual initiative offered by empowerment, then, many of our informants have asserted, the scope for opportunism and the possibilities for inefficiency must be checked through increased accountability. For example, the group finance director in a steel manufacturer said:

> 'We are trying to change the philosophy and way of working in a significant way across the factory by pushing down to the lowest level responsibility. So that we are looking eventually for the man [*sic*] on the shop-floor running his machine to be much more accountable for what he does.'

Such presumed close relationship between empowerment and accountability was echoed by many managers, including the operations manager at a motor assembler who suggested: 'With empowerment comes accountability, so you are accountable for that which you do.' Other managers emphasized the emergence of greater accountability in more subtle ways:

> 'We've set a team up of three people from the floor, in the department as it were, and we've said, well, we've tried it through the hierarchy, let's try a different approach. Let's empower the people to come up with their own mechanisms and they've said, "Well, we can't go round and monitor everything, this is a self monitoring thing." You know the score yourself, in your own area, and we collect those and make them visible, like the Japanese principle. Monitor yourself and I think this way will be a lot more successful

> because we've got the people on the floor to introduce it themselves so there'll be a nice group pressure there.' (Director of Finance and Strategy, steel)

Managerial accountability, it seems, is presented by our informants in a most seductive way; it is construed as the twin sister of empowerment, the other 'welcomed' side of the coin, for it is through accountability that, these managers assert, we are assumed to shed our inhibition and enjoy a greater scope of personal initiative. Accountability is therefore perceived, or presented, as the saviour from rigidity and restraint and the deliverer of self-autonomy and entrepreneurship because it simultaneously assuages the existential insecurity associated with change. However, such grandiose claims serve only to reveal the nature of the notion of 'empowerment' that tends to be employed in the managerial lexicon – merely that of decision-making autonomy over the means by which key performance parameters are to be achieved. But these 'virtues' of empowerment are at once reinforced through the engineering of a 'new' way by which accountability is exercised. The old 'negative' top down methods of exerting hierarchic control are apparently abandoned in favour of the more 'humane' ways of self-assessment and self-monitoring. And here, as ever, accounting plays its old trick again: as human performance is collapsed into an apparently parsimonious set of accounting numbers, the extent of one's achievements is at once rendered visible for all to see. By emphasizing an internal monitoring system that utilizes accounting measures of performance (e.g. the cost of quality rejects; production cost overruns, etc.) and linking them to individual/group incentive schemes) control is internalized into organizational subjects in the form of self-discipline (or responsible autonomy), thereby rendering obtrusive hierarchical control, redundant while achieving the same ends. Thus, one informant in a company that has introduced an incentive scheme to 'facilitate' the operation of its empowerment initiative said: 'They're [management] less directive of the workforce, simply because the workforce are becoming more self-disciplined and you expect them to accept those controls themselves' (Operations Manager, motor assembler).

Yet, despite these accounts of accountability through internalization of control in the subjects by means of self-discipline and self-monitoring, our interviewees were virtually unanimous in indicating that greater emphasis on overt accountability has now become commonplace in their organizations. This is manifest in their accounts of the myriad of new practices that have accompanied, or quickly followed, the introduction of empowerment programmes in their own companies. These include: greater investment in accounting and management information systems, the introduction of tighter control procedures, demand for greater amounts of detailed information and greater emphasis on short-termism, etc., with the objective of improving bottom line results. *Prima facie*, these developments are at variance with the rhetoric of internal monitoring and self-accountability; a point to which we shall return. First, we discuss these accounts in more detail.

Accounting in Control

One of the common themes that emerged from our interviews was the greater emphasis placed by companies on developing quantitative measures of performance and on 'managing by the numbers'. Consider the following:

> 'We're developing much more quantitative measures. So that's corporate performance, and therefore within that, individual performance. Now it is more numbers oriented and it's not just on the supervisors' own personal whims quite so much, so it's seen as being fairer. ... People can buy into it, to use the buzz word.' (General Manager, Corporate Development, financial services)

Emphasis on improving bottom-line results in the short term, it has been suggested to us by our informants, is widespread among UK companies with all that this entails in terms of more use of accounting and other quantitative controls:

> 'Certain items of course are central, funding, style of reporting the accounting, and more and more items of financial control are dictated by manual. But as regarding how he [car dealer] sells and how he sets his stall out and how many staff he wants, how he runs it, he's got a reasonably free hand. And if he doesn't succeed within a reasonable time, i.e. 18 months, two years, he'll get fired.' (Personnel and Commercial Services Director, motor dealer)

As in many companies, the emphasis on short-termism and bottom-line results in this company was perceived as a manifestation of a deliberate and carefully orchestrated change towards a more calculative style of management. For example, the above interviewee suggested that in his company the managing director had put in a 'lot of management controls', resulting in a change of emphasis 'from seat of the pants management where it didn't matter that much if you didn't make any money to a very analytical carefully controlled management'. The use of accounting-based monitoring schemes has also been buttressed by physical controls in order to ensure the attainment of production targets. Thus, the works director in a steel manufacturer suggested:

> 'Part of the discipline is that the foreman has to go round twice a shift in most areas, and go and check each machine, each operator in terms of the output and at that point you pick up whether the person is on schedule or behind schedule or ahead of schedule in terms of what is required from that machine on that day, and equally takes them to the point if there is a problem, then the foreman has to get something done about that problem.'

With such increase in physical supervision comes a greater use of standard operating procedures and manuals, thereby effectively constraining the scope for discretion at lower managerial levels; according to the computer services manager in the above company, managers 'have gone into great length on standard operating procedures so that people can turn open a manual and know exactly what to do in any situation, and how he would like to see us move further down that road'.

Thus, despite the claims made earlier about the removal of bureaucracy, according to many interviewees there has been a change away from the entrepreneurial, 'seat of the pants approach' towards the more 'carefully controlled management', the management that is more financially aware and more adept at 'managing by the numbers' (Ezzamel et al., 1990) which requires a greater extent of information sharing than ever before. Seemingly, information now has to be accessible to all layers of management, as one director in a motor dealer suggested: 'The business is so run by business management information that before they get to managing they're exposed to some of that information.' Many of our informants have also suggested that with the exposure of all employees to information that was previously restricted to top management levels came an increased demand for additional, more detailed, more timely, and more frequent information; for example:

> 'There is a big demand from the shop-floor and from everybody for information about how profitable the business is and what things cost. So where you used just to get monthly reports on how the business was performing, we do really need them much quicker and with added information.' (Operations Manager, agro-chemicals)

It is as if the organization is attempting to become nothing more than its representation as a web of information, for all its participants. This suggested incessant drive towards empowerment through self-accountability does not sit easily with the greater emphasis on quantitative, short-term measures and the increased use of manuals and tighter control procedures. It is as if managers have little faith in notions of empowerment and self-accountability. Of course, it could be argued that additional and more timely calculations enable the individual to check and monitor his/her own performance and therefore improve self-motivation. It might also be argued that contemporary managers are over-anxious about the 'damage' that the sudden release of personal initiative through empowerment might bring, in the form of opportunistic behaviour, incompetence, unchecked discretion, etc. As a consequence, they are seemingly seeking to 'qualify' and control self-accountability by installing new kinds of bureaucratic procedures. Certainly, parts of our data could be interpreted as being supportive of this latter possibility:

> 'If you've got the team highly focused towards a well defined objective, then in some cases peer pressure would take over to assume that all members are fulfilling their role, fulfilling their responsibilities. But if you're not careful what happens is that everything deteriorates to a lowest common denominator because the other side of peer pressure is that everybody just wants to get along.' (Plant Manager, engineering)

If such measures were intended to be transitory, this was never made clear to us by our interviewees. But even if this was intended, what emerges is a ramshackle system of control premised on internal contradictions. It would appear that modern managers are caught up in the ambivalence of how to operationalize the ideals of empowerment and self-monitoring while at the same time maintaining their hold over bureaucratic control procedures:

> 'I think making people accountable and spreading decision making around in a controlled manner is good for the company. [But] some people have struggled

> with it because they've thought that they were moving for independence and then find that they don't have that decision-making independence.' (Financial Controller, extractive industry)

Contradictions of Account-ability

It is worth noting that some of the interviewees have demonstrated keen awareness of a number of serious problems encountered by their companies as they sought to redesign their accounting systems in order to facilitate the emerging new mode of empowerment, however qualified this may be, coupled with emphasis on greater and increasingly ubiquitous accountability. In some companies, there was confusion as to whether the attribution of accountability was meant to be aimed at teams or individuals:

> 'I think the teams themselves would see it [level of accountability] being the team [where that sits]. I think our mindset would still see it being at the individual level.' (Operations Manager, motor assembler)

This suggests that while at the operating level companies may have managed to negotiate a shift away from linework towards teamwork, for some the structure of decision making within the organization, and with it responsibility accounting, remains strongly focused on the individual as a centre of accountability. The problem, in part, appears to be due to the difficulty of partitioning the new organization into centres of accountability; as the financial controller of an oil company suggested: 'It's really difficult to know how to carve up the company and look at it from a performance point of view that's actually meaningful and leads to good decision making.' Faced with the ambiguity of identifying what constitutes a 'team', some companies seem to find it easier to retain emphasis on individual responsibility, a well tried and trusted method of accountability in the UK corporate sector.

Moreover, the emphasis on bottom-line results, caused in part by the desire to outlast the economic recession since the late 1980s, has resulted in managers' attention being focused on improving their performance records in the short term at the risk of compromising corporate long-term interest. In a climate of 'downsizing', each employee's contribution must be seen to count. This tendency has been noticed by our interviewees, although the manner in which they expressed their concern ranged from the gentle to the most explicit. An example of the latter, where one informant articulated the increased concern in his company for greater quantification of activities and increased cost awareness, is:

> '[The company] had this ongoing business which kept the machines running, and the machines were designed for large-batch production, and the telecoms and the military were all large batch production and everything else, whereas the rest of the world out there was changing and it's almost like the dinosaurs. They don't see the writing on the wall because they're too wrapped up in their own market segments. Even some of the product managers you talk to now they'll say, "I need to put that on that machine because it's a lower cost", or "We need a bigger batch", and you put 10,000 in stock and you use about

> four. It's bloody ridiculous. But really at the time when we were running that the management team should be looking at not just two and three years down the road, but identifying the markets that had potential.' (Finance Director, electronics)

Hence, the tension and potential contradiction between empowerment and a detailed and all-encompassing accountability, as suggested by our interviewees, is not only manifest in the new wave of management practice but translates across to the way in which accounting systems are being redesigned and implemented. In sum, there are several issues of concern to those interested in the role of accounting in organizations. Accounting systems are being called upon to provide more timely, more frequent, and additional quantitative information in order to facilitate the transition towards greater empowerment and accountability. Accounting is also being called upon to partition the new organization into new centres of calculation. In attempting to do precisely that, accounting is getting caught up in a new web of challenges: how to define new centres of responsibility and accountability that criss-cross different functions; how to identify definite boundaries between teams so that each becomes a clear target for managerial surveillance; and how to render the performance of the individual a homogeneous part of group performance while at the same time endowing it with distinct visibility in order to promote entrepreneurial spirit and preserve the motivation of individuals.

DISCUSSION

Irrespective of their functional specialism, UK managers acknowledge the central importance of accounting calculations in their impact on the everyday activities of the business. For example, the sales and marketing director in a control instruments manufacturer said:

> 'The accounting information that I see fundamentally are print-offs from computers so I can identify the profitability and cost ratios for the product that I sell in the marketplace. So I can identify the products which we have been selling at a reasonable margin and making some money out of it and I can identify products which we appear to be giving away, OK, making a loss out every time we sell one.'

Accounting information is thus increasingly presented by modern managers as being fundamentally intertwined with the commercial agenda of the organization (Ezzamel et al., 1994) by helping make the company more competitive and more profitable.

As the 'politics of the product' framework developed by Miller and O'Leary (1993) suggests, accounting practices, both old and new, are increasingly being linked by managers to the manufacturing of products, and indeed to the marketing of products. Accounting is seen as an indispensable technology of representation that can be deployed, along with other technologies, to improve the competitive edge of business. The walls that were said to have once existed between the accountants' 'ivory tower' and the factory are gradually crumbling. Despite repeated criticisms of what is perceived to be outdated past accounting practices, the relevance of accounting to the 'needs' of the modern manager is simultaneously being re-established and strengthened via discourses and rhetorics that promote additional methods of calculation that come predominantly from within accounting. 'Excellent' accounting practices that add value to the business are espoused by contemporary managers.

Changes in accounting are seen to be part and parcel of wider moves intended to reinvigorate the commercial dynamism of western companies in an effort to defend or restore a dominant position in world markets. Central to these agendas are a number of tensions, perhaps most importantly that between the representation of the release of entrepreneurialism as the route to success and the continuing importance attributed to organizational control and coherence. Despite a number of challenges to accounting from within this emerging discourse, accounting has endured, generally by building alliances with the new organization. Through its expertise in the operationlization of financially based representations, accounting presents itself as *the* expertise and technology which can square the commercially seductive circle of entrepreneuralism and control. Through the capacity to convert human performance into financial and non-financial measures, accounting becomes central to the managerial rhetoric of empowerment and responsible autonomy; by generating numbers that permit management at a distance, responsibility can be delegated to lower management without sacrificing top management's hold over control. The translation of diverse aspects of the commercial milieux into the language of accounting continues to facilitate comparison, coherence and control. Reformed accounting measures constitute the commercial orientation of current change agendas in the fabric of the organization as accounting alone purports to show how changes count.

Our interviews suggest that many companies are re-examining the technical capabilities of their management accounting systems with a view of improving costing calculations in the hope of enhancing their efficiency and effectiveness. However, tensions remain. Despite occasional references to their desire to monitor processes, the managers we interviewed continue to be preoccupied with the monitoring of results. The personnel and commercial services director in a motor dealer firm stated:

> 'X [accountant] is a team leader of a project called "Process Improvement" for the admin. [They are] looking at the process of running a dealership and we're just wondering if there's a better way of doing it. We haven't actually found one yet but we're trying to reinvent the wheel by analysing how a dealer operates, how he [*sic*] serves a customer, how he feeds back information to the group to see whether there are cheaper ways of doing it.'

Our interviews suggest that an emphasis on managing results was present in virtually all of the companies we studied. As managers have been vociferous in extolling the virtues of employee empowerment programmes, it is becoming increasingly obvious that such process-oriented initiatives are on a collision course with the old and 'trusted' model of managing results in which 'process' is operationalized as a detailed series of discrete 'results'. Emerging hand-in-hand with the rhetoric of empowerment is an intensified emphasis on establishing clear lines of control, on evolving modes of accountability, on expressing an ever increasing proportion of organizational activities into quantitative measures, and on emphasizing bottom-line results. At present, management accounting is rarely being called upon to evolve qualitative and non-financial measures that might enable modes of employee empowerment to operate in a climate of discretion – for example, by focusing on accounting for processes and on increasing awareness of interdependence and promoting trust. Instead, by and large, many of the old demands on management accounting are still being made: pressure for greater quantification of results, more emphasis on the short term, and more frequent and timely information for the purposes of monitoring performance.

The very notion of accountability in this context is seen to be rooted in accounting's 'special' ability to render human performance financially quantifiable, and hence commercially visible. The visibility is manifest in two senses; visibility of one's performance to oneself and also to others. By rendering one's own performance visible to oneself, a chain of self-monitoring actions is set in motion in which: (i) current performance is compared against one's own past performance; (ii) one's performance is compared against targets and one's claims for rewards against corporate resources; and (iii) one's performance is compared with those of peers. Rendering individual performance visible to others acts as a corrective mechanism in those situations where self-monitoring is deemed ineffective; here conventional top-down accountability is presumed to operate in an overt way to realign individual behaviour to the interests of top management. But even when self-monitoring is perceived to be operating well, visibility of individual performance to peers and superiors plays an important role in reinforcing discipline (see also Munro and Hatherley, 1993). Visibility is a deterrent for those who may contemplate deviation from standard behaviour. It is also a constant reminder of the set of corporate values (financial and otherwise) that are expected to be enacted by each employee.

Yet, it is precisely because of this emphasis on rendering performance visible that accounting can demonstrate its power and, curiously, its vulnerability. Using a set of rules (many of which are contestable), the organization is sliced into a myriad of visibility centres that transcend functions, product lines, and hierarchical levels ultimately reaching the individual. Complex tasks, unobservable behaviours and messy interactions are apparently rendered by accounting into measurable, visible and hence manageable phenomena. Accounting's power is therefore enshrined in every manifestation of visibility. But, as our interviewees have indicated, as accounting seeks to quantify and make performance visible, a space emerges for counter-claims. Because some accounting rules are arbitrary and contestable, they could be seen by some constituencies to force artificial boundaries on to the organizational space, frequently creating contentious centres of visibility, and in the process masking or abstracting major interdependencies and sensitivities. This gives rise to other claims and counter-claims yielding alternative sets of calculations and with them alternative levels of visibilities. *A wide door is therefore opened through which accounting can be* *repeatedly attacked but also through which new accounting calculations can be invented or old calculations repackaged thereby reaffirming the legitimacy and endurance of accounting.*

Our interviews also provided some insights with respect to the extent to which accountability is implicated in constituting empowerment. Frequently, our interviewees defined empowerment through accountability. By invoking the dictum that 'you are accountable for that which you do', the extent to which one can be rendered accountable at once defines the level of empowerment permitted. When accountability is absent or not possible, empowerment is also perceived to be absent. The danger of this line of argument, however, is that through causal reasoning it can be taken to the limit of functional determinism. Thus, variations in 'empowerment' across different organizations can be seen solely through variations in the possibilities of accountability among these organizations. While not wishing to deny this possibility completely, we prefer that our argument allows for the constitutive effects to operate in both directions. As management is compelled, or indeed willing, to promote higher levels of empowerment, so this may trigger the search for and design of modes of accountability that support the desired level of empowerment.

CONCLUSIONS

The interview material analysed in this paper has yielded many intriguing and interesting insights concerning the role of accounting (and by implication accountants) in modern organizations. There are, however, some caveats that should be borne in mind when interpreting these insights. First, the empirical evidence reported here is exclusively UK-based and hence it is possible that our observations are UK-specific. This may explain some of the differences between our findings and those of Miller and O'Leary (1993), based on evidence from the USA, in which accounting is presented as being much less central. Second, at the time of conducting our interviews our sample of companies were in the throws of major change situations in a recessionary economic environment and many of the processes we were examining were still fluid. It is therefore possible that our findings are of a more transitory nature than initially suspected. For example, it may be too early for us to ascertain whether 'empowerment' is an alternative or a supplement to tighter bureaucratic control.

Despite these limitations, our study sheds light on what we consider to be intriguing dynamics of how accounting as a practice can perpetuate itself. Those lobbying on behalf of accounting secure its survival by first admitting to its limitations and then demonstrating that new credible solutions can be generated from within it. In the face of the recent sustained attack on accounting by academics, gurus, and managers, practising accountants have been quick to seize the opportunity and to join in the attack rather than remain entrenched by seeking vainly to protect old practices that have become discredited. But the process of 'self-criticism' and reflection seems to have been 'managed' in a subtle way. While admitting to the limitations of old practices, the accounting craft *in itself* has been spared. Criticisms of old and obsolete practices have been hung, conveniently, on the hook of 'conventional accounting', and the debate was switched to the 'new accounting' which promises new solutions. *Old* accounting is proclaimed dead, but simultaneously *accounting* is proclaimed alive and well, albeit in a 'new form'.

The 'new' accounting has maximized its propensity to survive by demonstrating its flexibility to readjust in two main ways. The first relates to the ability of accounting to link its procedures and methods of calculation to the recent developments in information technology, and hence capitalize on the potential to manage large financial databases, and the opportunities for information sharing and networking within the organization. By deploying an information technology that is capable of storing massive databases, detailed activities, no matter how mundane, can be checked and appraised on a regular basis. By networking individuals operating at different locations, their activities can be checked frequently and more readily. As such detailed, comprehensive and constant monitoring can be secured, and as information is widely shared, through multi-access schemes, around the organization, interdependencies may be recognized, and mutual adjustment can be promoted so that ultimately the very ethos of control is internalized in the subject. A second way in which accounting has demonstrated its capacity for reconstruction relates to its central role in promoting new types of calculations. The numbers of staff employed to 'do' accounts may be shrinking, and the ritualistic preparation and presentation of cost and management accounting reports may be declining. But the actual use of accounting to quantify and monitor human activities is, if anything, increasing as it is adopted by other specialisms to demonstrate and legitimize the value and effectiveness of their contribution.

The managers we have interviewed have suggested that accounting measures are being harnessed to implement the 'new' ways of management. Yet, it would be misleading to suggest that contemporary accounting practices are little more than 'old wine in new bottles'. Some important changes in accounting are taking place. New accounting calculations are being developed that are seen to be more 'relevant'. This ability to change and to generate new alternatives from within itself enables accounting to perpetuate its existence and, indeed, its central importance to both those who manage and those who are managed. Even in those cases where seemingly competing alternative solutions, such as TQM, are adopted, those with some accounting expertise, who are not necessarily accounting specialists, have found ways of making accounting operate *with*, rather than being supplanted by, these alternatives. Assisted by the accounting function's control of computerized databases, much general management information is re-presented as 'new' accounting. The redundancy of 'old' accounting enables the colonization of the organization by other quantitative measures as new accounting techniques are adopted. While this enables 'bean counting' to survive, over time, it is possible that accounting's increasing involvement in non-financial information flows, coupled with increasing financial awareness in other specialisms, will begin to threaten its distinctive identity as a function. Yet paradoxically, its success within the new game depends on its ability to maintain such an identity which, of course, remains founded on its external reporting role. If we are to acquire a more adequate understanding of why and how accounting has remained so pervasive and central in organizations, despite and indeed through the sustained attacks to which it is becoming subject, then we must undertake analyses of both its vulnerability and its enduring presence and power.

NOTES

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[1] In part, this arises from a marked weakening of confidence in the reliability and impartiality and 'professionalism' of the most visible face of accounting, the audit. See Sikka and Willmott, 1995.

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