

The involvement of management accountants in operational process change

Results from field research

Operational
process change

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Abstract *This paper suggests that there is a natural tension between operations managers and management accountants. This tension is particularly evident when decisions are being made about process change. Semi-structured interviews with 40 operations managers revealed that accountants were only involved in about half of change processes. Surprisingly this proportion was the same for both continuous and radical change programmes despite the latter involving greater risk and capital investment. Six case studies were then used to identify the factors which underpin the degree of involvement where there was close interaction between accountants and operations managers. The paper concludes with a discussion of the implications for operations managers and some suggestions for further research.*

Operations management accounting – a natural tension?

In order to understand the nature of involvement of operations managers and management accountants in decisions about operational processes this section briefly outlines their respective key tasks. As a result it is suggested that their differing roles and perspectives may lead to a natural tension between these two groups of people.

The role of the operations manager

The key tasks for operations managers include (Slack *et al.*, 2001):

- developing and implementing operations strategies linking the operation to corporate strategy in order to gain competitive advantage;
- designing products and services and the processes by which they are created and delivered;

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- planning and controlling the materials, customers and information used in the process to create the goods and services, on time, every time;
- continually improving the operation to make it cost effective and competitive.

Operations strategy, design and improvement tend to be longer-term tasks, yet despite their importance operations managers tend to be preoccupied with the shorter-term planning and control activity. Operations managers are under pressure to deliver today's goods and services to the customers currently occupying their delivery channels: face-to-face, via the Web, and on the telephone. "The emphasis within the production managers role has ... been directed toward short-term tasks. The overriding pressures to meet day-to-day targets, and the highly quantifiable nature of the role, have reinforced the tendency of manufacturing executives to concern themselves with this feature to the exclusion of the important long-term" (Hill, 1993). Planning and controlling operations every day, for each hour and minute is a demanding task faced by both manufacturing and service operations managers and "as a consequence, there is substantial pressure exerted to meet the operations requirement in the short term" (Hill, 1991).

When time is given to improving existing processes and designing new processes, operations managers may be concerned with finding the ways and means to bring about change, on the assumption that what they do should improve, at least in the long term, the organisation's financial position. The costs of improvements, especially those based on new technologies, may also be difficult to ascertain, as they have a habit of increasing with implementation. Similarly, some benefits may be expected, or at least anticipated, other long-term benefits may be difficult to judge and indeed some benefits may emerge with use. As a result operations managers tend to be concerned with bringing about change based on an expectation of operational benefits rather than trying to justify uncertain costs and identify unknown financial benefits.

The role of the management accountant

There are three main activities undertaken by the accounting and finance function in most organisations, which in small businesses may be performed by the same person:

- (1) day-to-day recording of financial transactions and their periodic reporting to external parties, principally shareholders;
- (2) financial management, including decisions on the mix of finance and dividend policy;
- (3) management accounting.

This paper focuses on part of this role, the role of the management accountant. Management accounting systems generate financial information to meet three main requirements (see for example Drury, 2000):

- (1) a periodic allocation of costs between cost of goods sold and inventory;
- (2) the provision of information on both an *ad hoc* and regular periodic basis to aid managerial decision making;
- (3) the provision of information for planning, control and performance measurement.

A large part of the activities of management accountants concerns the operation of systems of budgetary control, sometimes referred to as “managing by the numbers” (Ezzamel *et al.*, 1990). The operation of budgetary control requires that managers be made accountable for those costs and revenues for which they are responsible and which are controllable by them. Budgetary control involves setting budgets and then making periodic comparisons of actual performance with budget, followed by appropriate action and organisational learning (Fitzgerald *et al.*, 1991, Ch. 2).

A natural tension

It is at regular meetings to compare actual performance with budget that operations managers and management accountants meet. The management accountants run the systems whereby operational budgets are set, capital projects are approved or rejected, and operational managers are held to account. This is reason enough to understand that there may well be a natural tension between the management accountants and operations managers.

Furthermore, although the purpose of budgetary control is to provide decision makers with a better understanding of past performance to help guide their future decision making, budgetary control is essentially a backward-looking assessment of events and their consequences. This may therefore be the cause of some tension between management accountants and others in the organisation, such as operations managers, who are primarily forward oriented and concerned about the events of today and tomorrow. Extrapolation from past events based on previously prevailing conditions may not be felt by operations managers to be appropriate for existing conditions, as market pressures, technologies and processes may have changed.

An additional cause of tension may occur where budgetary control is poorly exercised, using out-of-date standard costing systems, budgets that do not reflect current business processes and an “over the wall” approach by accountants to the monthly management accounts. As Kaplan (1991) noted, “If substantial changes are taking place in manufacturing processes, the management accounting systems must also change if they are to provide relevant information for managerial decisions and control”.

In essence the natural tension between operations managers and management accountants is the result of their differing perspectives on two issues. First, operations managers tend to be focused on decision making today and in the future whereas accountants are traditionally concerned with reporting on past events. Second, when it comes to improving processes, operations managers are looking for ways and means to change, on the

assumption that what they do should improve the organisation's financial position. Management accountants, on the other hand, being concerned with financial reporting, and responsible for budgetary control, are less concerned about change *per se* and more concerned about the need to be convinced, in financial terms, before any change can take place.

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Tension and the degree of change

The underlying assumption of this paper is that this tension is likely to manifest itself most strongly where operations managers and accountants are brought closely together, for example when operations managers are trying to bring about improvements to operations processes which may have an impact on budgets and capital expenditure. Process change, such as the implementation of new computer-based processes or equipment, changes in delivery systems such as Internet-based trading, or the restructuring of existing processes, roles and responsibilities, may well involve decisions on capital expenditure, risk assessment, allocation of costs, the drawing up of budgets and implementation of new financial and operational control systems (see for example Lynch and Cross, 1991; Nanni *et al.*, 1990, 1992; Shank and Govindarajan, 1993).

Furthermore, it is argued that management accountants are well placed not only to provide such information but also to help design appropriate performance measures (PMs) (Chenhall and Langfield Smith, 1998a, b; Nanni *et al.*, 1992; Shank, 1989; Shields and Young, 1992). More recently it has been argued that a key role for accountants should be to help link the various business processes with corporate goals using multi-dimensional performance measurement methods (examples include the Balanced Scorecard of Kaplan and Norton (1992); the Performance Pyramid of Lynch and Cross (1991); and the Results and Determinants Framework of Fitzgerald *et al.* (1991)).

Conversely, other authors have suggested that the involvement of accountants does not necessarily enhance either the design of performance measurement systems (PMSs) or organisational performance itself (Johnson, 1992; McKinnon and Bruns, 1992). Management accountants may tend to over-emphasise financial PMs, leading to an unbalanced set of PMs (Vollmann, 1989; Eccles 1991). Nanni *et al.* (1992) argue that traditional management accounting performance measures do not track progress in implementing strategy. Furthermore, they assert, the information traditionally provided by accountants has a product not a process view, but a process view is more helpful in integrating activities with strategic priorities (and is particularly pertinent to process change). Another line of attack consists of examples where management accountants have been found to have low involvement or interest in organisational change (Howell and Stoucy, 1987; Eccles, 1991) or even to have resisted change. Examples of resistance include activity based costing systems (Foster and Gupta, 1989) and product life-cycle costing (Shields and Young, 1989). Finally, Lord (1996) argues that many accountants are seeing their traditional roles and status being eroded and are therefore trying to

expand their sphere of influence by getting involved with organisational change and other management activities, often under the heading of "strategic management accounting". Such involvement is, she asserts, an example of "the emperor's new clothes", as other members of management teams already have the necessary accounting skills as well as other skills that accountants do not possess, thus such involvement by accountants is merely a cloak for their underlying redundancy.

The objective of this paper is to investigate how operations managers and accountants can work together to facilitate process change and overcome the natural differences or tensions in their approaches to process change.

The first hypothesis is that, despite this natural tension, management accountants will be closely involved in operations which are undergoing process changes. The second hypothesis is that the amount of involvement will vary between continuous change activities on the one hand and radical, step-change programmes on the other. Continuous improvement is an evolutionary approach to improvement and is a philosophy that aims to root on-going improvement into the basic strategies, culture and management systems (Deming, 1986; Juran, 1989; Stanleigh, 1992; Slack *et al.*, 2001). Radical change, in contrast, is a revolutionary approach involving streamlining, reorganising and integrating activities to create new ways of working to support a process management orientation (Harvey, 1994; Hammer, 1990; Hammer and Champy, 1993). (For a more detailed discussion see Johnston *et al.*, 2001.)

The anticipated difference in management accountants' involvement is on the basis that radical changes will involve greater risk and capital investment, for example, than incremental, continuous change (see for example Imai, 1986; Slack *et al.*, 2001). In short, the degree of involvement will depend upon the potential financial impact of the change.

This study involved two stages. In the first stage interviews were conducted with senior operations managers responsible for change processes. To balance this approach the second study involved interviews with senior management accountants.

Study 1

Methodology

The first study involved face-to-face interviews with 40 senior operations managers in four industries in the service sector; financial, transportation, hotel and catering and professional services. The choice of these four was an attempt to bound the study and the selection of these particular industries reflected the authors' interests. Some 80 organisations were approached from existing databases and personal contacts and 40 organisations agreed to be involved in the study.

The interviews employed a semi-structured questionnaire which was based on a review of the literature and three hours of discussion at a pilot site. The instrument was then further refined at two pilot test sites. The interview questions were both structured and open in order to collect detailed responses

to pre-determined issues and also allow for discussion on the nature of the role of the management accountant.

The questionnaire was sent out to the interviewees in advance of the interview. The face-to-face interviews were conducted by a team of seven researchers from Warwick Business School. The senior managers interviewed were, in all cases, the individuals responsible for overseeing the process change. The discussions centred around a specific process change which they had recently completed. Occasionally the interviewers intervened and asked for an alternative process change if it was clear that the process and change being described referred to organisational change, for example a corporate transformation programme, or it was unclear whether the change was incremental or radical.

The interviewees were asked for a detailed description of the process, which had undergone either radical change or continuous improvement. The interviewees were then asked to categorise the type of change which was cross checked against a variety of attributes which characterise continuous or step change, such as capital expenditure involved, degree of risk, amount of change expected, etc. (see Slack *et al.*, 2001; Imai, 1986). A number of more open ended questions were then asked about the role of the management accountants in the change process, how involved were they and how they supported the changes.

Results

Management accountants were involved, either fully or partially, in just over half (52 per cent) of the process improvement programmes (see Figure 1). Their role included, for example, helping to set costs, approve expenditure or provide advice when asked. Surprisingly accountants appeared to play no part whatsoever in 48 per cent of the change programmes.

Out of the 40 process changes investigated, 13 were examples of incremental, continuous improvement activities and 27 were step-change processes involving significant amounts of expenditure and risk. Our assumption was that accountants would be more involved in the radical change programmes and less involved in continuous change programmes where budgets had been set earlier and little capital expenditure and risk was

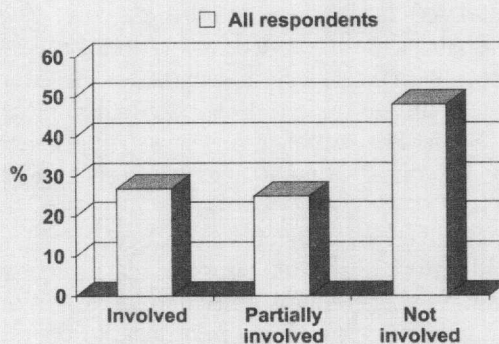


Figure 1.
Involvement of
management accountants
in process change

involved. Contrary to expectations management accountants were only fully involved in less than a quarter of the radical, step-change improvement programmes and not involved at all in over half of them, despite the business risk associated with these activities, the importance of financial targets and the high levels of capital expenditure required (see Figure 2).

Indeed management accountants appear to be more involved with continuous change rather than radical change which runs counter to our expectations (see also Brignall *et al.*, 1999).

The open-ended questions in the interviews with the operations managers revealed not only a tension but also a significant amount of scepticism regarding the skills and potential of management accountants to make a contribution. In particular operations managers:

- reported that accountants were unwilling to participate in the operations, indeed they seemed reluctant to expose themselves to the operation and were unwilling to “get their hands dirty”;
- were sceptical of the potential role that could be played by management accountants, dismissing them as having no understanding of the processes or problems;
- did not believe that the change programmes required any specialist management accounting skills and when such skills were felt necessary they were often provided by non-accountants;
- saw accountants as a means of preventing things from happening.

It would appear that, contrary to the hypotheses, management accountants are little used to drive or even support process improvements in many organisations. Worse still they appear to be much maligned and their potential misunderstood and under-utilised, especially in radical step-change programmes where business risk and capital expenditure is greater than in continuous process change.

As a result of these findings it was decided that the next stage of the study would investigate six sites in detail where management accountants were fully

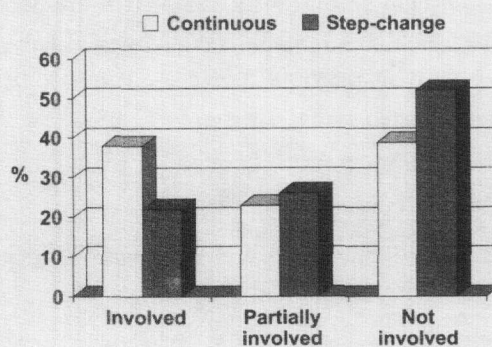


Figure 2.
Involvement of
management
accountants in
continuous step-change

involved in the change processes in order to assess the conditions for, and implications of, their involvement.

Study 2

Methodology

The second stage interviews focused on the role of the management accountants in process change. Three were organisations which had provided an example of step-change in the stage one interviews and three had provided a continuous change example.

The six case companies were:

- (1) Case 1: a bank assurer.
- (2) Case 2: a railway train operator.
- (3) Case 3: a firm of information systems consultants.
- (4) Case 4: a transport infrastructure maintainer.
- (5) Case 5: a firm of project and facilities management consultants.
- (6) Case 6: a chain of hotels.

The individuals identified and interviewed in this stage of the research were, in all cases, the most senior accountant in the organisation who had some involvement in the change programmes, usually the financial director. They were identified as the most appropriate person by the senior operations manager who had previously been interviewed in stage one.

Using Yin's (1994) criteria, we undertook a case-based study to explore and explain accountants' involvement in process change. A case-based approach was appropriate because of the complexity of the relationships under investigation and the many contextual variables that might affect them. The format was semi-structured and wide ranging but focused on the role of the management accountant and the accounting systems in the change activities undertaken by the organisation, usually involving discussion of the change activity documented in the earlier interview. In each interview the following points were covered:

- (1) Why are management accountants involved in the change programmes?
- (2) In what ways are management accountants involved in the change programmes (using the previous interview as a specific example)?
- (3) Why does it seem to work in this organisation?
- (4) The role of accountants in project or change teams.
- (5) How do they support change?
- (6) The planning mechanisms and the accounting team.
- (7) Allocation of time, duties and responsibilities.
- (8) The management accounting systems in place.

- (9) The culture of the organisation and its view of accountants.
- (10) The strategic and commercial roles of the accountant.
- (11) Management accounting versus financial accounting roles.
- (12) The role of information technology.

While each of the six cases was different, some common themes appeared to run through them. These themes did not flow from prior theory but from an inductive, hermeneutic, grounded theory approach to the development of theory via case studies (Glaser and Strauss, 1967; Strauss and Corbin, 1990, 1998). The Strauss and Corbin (1998) grounded theory paradigm has five parts:

- (1) Causal conditions relating to the object of study, e.g. the reasons why management accountants become involved in process change.
- (2) Conditions related to the organisational context in which the object of study (management accountants' involvement in process change) has occurred.
- (3) Intervening variables related to the organisation's external environment which have impacted the object of study.
- (4) The actions, interactions and strategies that management has adopted in response to 1-3 above – in this case, some five key roles ("process") that management accountants have adopted to further organisational process change
- (5) The consequences and outcomes of 1-4 above, e.g. to what extent have management accountants been involved with process change? In particular we shall consider the relative success of the process changes studied in the six case companies compared to the rest of the first stage sample; their use of non-financial performance measures; whether changes were made to the six companies' management accounting systems; and so on.

(In items 4 and 5 the first three factors are combined into six "prerequisites" for management accountants' involvement in process change.)

Results

Our analyses of the six case studies identified six prerequisites to the successful involvement of management accountants in organisational change and five key roles which should further their involvement. The prerequisites and roles constitute a "contingency framework" where the prerequisites are necessary contextual factors and the roles are contingent on these factors.

The six prerequisites (causal, organisational and intervening variables) are:

- (1) *Team players*. All the management accountants we interviewed were key members of the senior management team (we found in our survey that all the process changes we studied were initiated and controlled by senior managers) and many of them were major strategic players in

their own right. In addition they were closely involved in several cross-functional improvement teams. In some cases (for example, case 1), being a "good team player" was an important part of an accountant's performance reviews.

- (2) *Sound and well-established accounting systems.* In cases 1, 4 and 5 the management accounting systems are computerised and well developed, freeing time for involvement in non-traditional cross-functional roles. In case 2 the accountant was not heavily involved in traditional accounting work (only 20 per cent of his time), having been specifically recruited for his change expertise. In case 3 the small size of the company meant that accounts could be prepared on a spreadsheet, taking only 15-20 per cent of the accountant's time. In case 6 the use of "good enough accounting" (Johnston *et al.*, 2002) achieved a similar freeing of time. Thus in all cases the accountant's time was not dominated by traditional tasks, although the means by which they were freed from this varied across four subcategories. Several interviewees were also developing their use of non-financial performance measures: the development of a balanced scorecard in case 1 is an example.
- (3) *Business and process knowledge.* All the accountants we interviewed had an extensive understanding of the business and most of its operations and processes. They spent time out of the office getting to know people, their roles, the operations and processes they were linked to and the information they needed. However, the extent to which they did this varied: in case 3 some three days per month are spent out of the office, but almost the reverse is true for case 5. Accounting information was seen as a common good in many cases, owned by the business and not the accounting function (as mentioned by the interviewee in case 1, for example).
- (4) *Flexibility.* All the accountants wanted flexible job boundaries, but the extent to which this happened varied. This meant that each had a flexible view as to what he or she should be involved with, covering operational, tactical and strategic aspects of management decision making. While accounting information was viewed as an important support to decision making, these accountants accepted that in some situations non-financial information might validly lead managers to take decisions that were not financially attractive.
- (5) *Interpersonal and communication skills.* The accountants we interviewed saw good interpersonal and communications skills as key to their ability to work with others: not just their fellow senior managers but with their other internal customers at all levels, to understand their needs and so be an efficient conduit for appropriate information flows. In several cases (1, 2 and 5) it was mentioned that proficiency at these skills formed part of the accountant's annual appraisal and was a key determinant of promotion prospects for more junior accountants.

- (6) *Challenge and change.* At all six sites there existed conditions (organisational or intervening variables) which helped to challenge the status quo and so facilitated culture change and an enhanced role for the management accountants. For example, in some cases the successful involvement of the accountant(s) in process change was facilitated by the accountant being new to the business (cases 2, 3 and 5); or by the business being privatised (case 2). In others the business was a new venture on a green-field site, meaning the organisational culture was malleable (case 1). Other reasons for the successful involvement of accountants in process change included the small size of the business, which was also growing very fast, so necessitating the accountant's involvement in carefully managing cash flow and providing information for key pricing decisions (case 3), for example. Finally, the impact of regulation or deregulation was important in cases 1, 2, and 4.

The prerequisites described above combine factors that directly caused management to introduce process change with organisational and environmental variables that conditioned the response of the management accountants.

The five key roles (management accountants' involvement strategies) are:

- (1) *The generalist.* In all six cases the management accountant was a senior member of the executive team (at least at local level: case 6) and in most cases not only had direct responsibility for the usual tasks of the accounting function, such as budgeting and cash flow management, but also awareness of commercial issues and a shared responsibility for making commercial decisions. Having a clear view of the nature of their business and its component parts, they had often developed devolved management accounting systems within SBUs to provide local support to decision making (cases 1, 3 and 5), while retaining a strong strategic overview.
- (2) *The non-traditional accountant.* The accountants we interviewed did not "hide in dusty back rooms" but were in close touch with what was going on in the business. Rather than spending much time in their own office trying to make the accounting numbers still more accurate, they believed in "good enough accounting" (case 6). This gave them time to familiarise themselves with business processes and operations and those running them so that they might better meet their information needs. The accountant in case 2 was actually given a non-accounting title, as customer operations manager, although he had an accounting team working for him. These accountants were "hands-on" and "in-touch" individuals with outgoing personalities (cases 1, 2 and 5).
- (3) *The linchpin.* The accountants seemed to have a key role as the linchpin of the organisation (cases 1, 3 and 5). They appeared to link the business up, down and across the hierarchy using financial and non-financial

information as the “glue”. They shared commercial responsibility for change activities and were fully functioning members of the interdisciplinary teams charged with designing and implementing them (cases 1, 2, 4 and 5).

- (4) *The facilitator.* The accountant’s role on cross-functional improvement teams was to act as a facilitator. The accountant not only collected and disseminated information, but also encouraged a flexible focus on real-time information relevant to the particular process change (cases 1, 2 and 5).
- (5) *The interpreter.* Although the accounting function is based on technical skills, the accountants saw it as part of their role to demystify accounting (and other) data. By analysing and explaining data they turned them into information for others to use (cases 1, 2, 5 and 6).

Summary and conclusion

This study had a number of limitations which also provide pointers for further research. For example, we accept that a more controlled approach, involving the study of some cases where management accountants were not involved in process change, would have been preferable, but such an approach was not possible within the time allowed for our study. Also, given the limited number of cases, more replications are needed to improve confidence in the validity of our findings.

Despite these limitations we have confidence in our conclusion that the natural tension between operations management and accountants described earlier is frequently a reality. This tension manifests itself through a lack of involvement by accountants in process change, even radical process change where not insignificant amounts of capital expenditure and risk might be involved.

From a grounded theory analysis of the six cases there appear to be six prerequisites that appear to aid and underpin collaboration:

- (1) team-working;
- (2) sound and well established accounting systems;
- (3) accountants with good business and process knowledge;
- (4) accountants with a flexible view of their roles;
- (5) accountants with good interpersonal and communications skills;
- (6) accountants who were willing to challenge the status quo and facilitate change.

The accountants who worked closely with operations managers in process change appear to be non-traditional accountants, who act as facilitators and lynchpins for business decisions.

Although this research has focused on the role of the management accountant in process change we would venture to suggest that there are

several issues for operations managers in order to break down the tension between operations managers and management accountants. First, there is a need to encourage accountants to become involved in the operation and to understand, first hand, the issues facing operations managers. Second, this may be achieved by greater use of cross-functional teams not only to share understanding but also to create common ownership of problems. Third, operations managers need to recognise and use the skills of the accountants, in particular encourage their roles in providing non-financial information and use their skills in interpreting and disseminating information. Fourth, operations managers should see accountants as facilitators not as a barrier to change.

It would appear that the potential of management accountants is much maligned and misunderstood and their skills undervalued and under-utilised in process change – a key task for operations managers.

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