



CIMA

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Management Accounting Practices of (UK) Small-Medium-Sized Enterprises (SMEs).

Improving SME performance through Management
Accounting Education

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Key conclusions

- The emphasis on management accounting in SMEs tends to be on control information rather than aiding decision-making; there is a tendency to make decisions without adequate, or indeed any, financial information or analysis;
- In smaller enterprises, the management accounting is often undertaken by the owner-manager/entrepreneur, resulting in significant opportunity costs. Where more structured use of management accounting techniques could add value, it might be appropriate to employ a management accountant 'business partner' to address this problem;
- There is considerable variation in the amount and type of management accounting undertaken, seemingly conditioned by a number of factors:
 - i. size (larger organisations do more management accounting than smaller ones);
 - ii. financial constraint in terms of profitability, cash flow and credit availability (severely constrained organisations do more management accounting than less constrained ones);
 - iii. external stakeholder requirements;
 - iv. background and experience of senior management team (senior managers with non-financial backgrounds being less likely to employ management accounting);
 - v. nature of the operations and the environment in which the enterprise is operating.

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Abstract

This paper reports on the findings of a CIMA sponsored study of the management accounting practices of SMEs. Contributors to the management accounting literature (e.g. Nandan, 2010) have suggested that failure or underperformance of SMEs is often due to their failure to utilise appropriate management accounting tools. Given its mission, this issue is clearly of concern to CIMA.

The findings of our exploratory study suggest that, while the situation is not as bad as some commentators had feared, there is significant scope for improvement through better dissemination of the accountant as 'business partner' concept and improved understanding/awareness of management accounting decision-support tools. There is also a need to ensure awareness among small enterprises that, while not using certain management accounting tools may be appropriate for small organisations, it will not be appropriate when the organisation grows in size and complexity; education in the use of such tools may therefore be desirable for SMEs hoping to grow in future.

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1. Introduction

SMEs are the backbone of the UK economy. They employ around 59% of the workforce and contribute around 50% of private sector output; 99.9% of all enterprises in the UK are SMEs. During his 2011 budget speech, the UK Chancellor, George Osborne, put much emphasis on SMEs, introducing a number of measures to provide incentives for them. SMEs, then, are widely seen as key to stimulating growth in the UK economy.

SMEs are business enterprises which satisfy two of the following three criteria:

	Small	Medium
Sales turnover (up to)	£6.5m	£25.9m
Net assets (up to)	£3.26m	£12.9m
Number of employees	50	250

Source: UK Companies Act 2006

Given the importance of financial issues and the increasing need for enterprises to operate economically, efficiently, effectively, efficaciously and ethically, management accounting has potentially a crucial role to play in improving the quality of planning, control and decision-making. However, little is known about the role of management accounting in SMEs and its contribution.

Whilst acknowledging that this is an under-researched area, previous contributors to the management accounting literature (for example Mitchell and Reid, 2000; Nandan, 2010) have suggested that SMEs are often failing to leverage adequately the potential of management accounting for helping them achieve their financial objectives, including profitability and liquidity. This suggested a need for research into the management accounting practices of SMEs, which was the rationale for this project.

2. Objectives

Given that this was widely acknowledged in the literature as being an under researched area, this project was concerned with examining whether management accounting in SMEs is being adequately leveraged to enable these enterprises to fulfil their potential in terms of productivity, efficiency and ultimately, profitability.

Specific objectives included:

- To evaluate the overall quality of management accounting in SMEs
- To understand how the management accounting function is resourced in SMEs
- To understand which particular management accounting tools are used by SMEs and which are not and in the latter case why not?
- To identify areas where the management accounting function can be developed and strengthened in SMEs in the current business and economic environment

3. Research Methodology

In order to achieve these research objectives, we carried out eleven exploratory, in-depth case studies of a mix of small and medium sized enterprises:

Small enterprises.

- Satellite Communications Equipment Manufacturer (£0.75M turnover)
- Air Conditioning Equipment Distributor and Consultant (£3M)
- Engineering and Maintenance Services Provider (£4.3M)
- IT Systems Consultants (£2.5M)
- Registered Charity for Conflict Resolution (£5.2M)
- Car and Van Rental Company (£5M)
- Alternative Books Publisher (£1.5M)

Medium- sized enterprises.

- Lawn Care Products Distributor and Consultant (£23M)
- Cosmetics and Hair Care Products Manufacturer (£10M)
- Financial Services Firm (£7M)
- Accounting Services Provider ("in excess of £10M")

3.1 Research Method

The research method consisted primarily of interviews with the CEO/Owner-Managers and, where appropriate, other senior managers such as the FD, using a semi-structured questionnaire. Despite the relatively small sample size, these exploratory findings provide important insights which can inform the development of hypotheses for future large-scale survey research. The study was particularly focused on establishing whether the following management accounting tools (widely advocated in textbooks and professional accounting syllabi) were used –and understanding, if not used, why not.

- Product costing (including methods for allocating indirect costs)
- Budgets for planning and control
- Standard costing variance analysis
- Cost-Volume-Profit (including break-even) analysis
- Responsibility centres/accounting
- Capital expenditure appraisal techniques (payback, NPV etc.)
- Working capital measures (debtor days, creditor days, daily cash balances, stock turnover)
- Short-term decision support tools (relevant cost analysis; tools for dealing with risk and uncertainty)
- Strategic management accounting*

*Although there is no universal agreement of what constitutes strategic management accounting, we have taken it to include the techniques most commonly appearing in the textbooks (for example Hoque, 2006) under this heading. These are:

- Costing the Value Chain
- Competitor accounting
- The Balanced Scorecard
- Product life cycle costing
- Quality costing (use of cost of quality reports and so on)
- Cost accounting systems for 'lean' production –i.e. throughput accounting and back-flush accounting.
- Cost management of supply chains
- Customer profitability analysis
- Benchmarking
- Target costing

4. Main findings and their implications for practical application

One area where there seemed to be scope for improvement was in who does the management accounting. We found that in small enterprises, such management accounting as was done, was usually done by the owner-manager/entrepreneur and this could involve a substantial opportunity cost in terms of senior management time, which might perhaps more usefully be devoted to developing the business in other areas –sales and marketing, new product development and so on.

The owner-managers concerned tended to have a 'bean counter' image of accountants and were unaware of the potential contribution that management accountants –and in particular accountants as 'business partners' could make. This finding should be of interest to professional bodies and educators as it suggests a need for better dissemination of the 'business partnering' concept among SMEs. However, the entrepreneurs concerned were reluctant to employ a management accountant, as they generally expressed the desire to maintain control and have exclusive access to information they considered sensitive. They believed that the process of crunching the numbers themselves provided them with superior insights into what was going on and hence afforded greater control than would be the case if they were simply provided with what they believed would be generic, highly aggregated, summary information by an accountant. An understanding of the business partner concept could well change this perception.

4.1 Individual Management Accounting Tools Used

With regard to the individual management accounting tools investigated, all the enterprises studied used:

- Product or service costs for pricing and/or profitability analysis (but not for cost control -e.g. via standard cost variance analysis);
- Working capital measures (debtor and creditor days, stock turn and daily cash balances), where appropriate – some service firms and the registered charity didn't have stock;
- Informal Cost-Volume-Profit (C-V-P) analysis (and in the case of the medium-sized firms, formal C-V-P analysis). Small firms tended to use the informal approach, whereas medium sized firms used the formal approach*.

These three management accounting tools were considered by all the enterprises studied to be the most important pieces of financial information. This was a very important finding, as it was contrary to suggestions in the literature that:

- SMEs often lack knowledge/understanding of their costs and as a result get their pricing and product mix decisions wrong;
- SMEs fail to manage their working capital and hence cash flow adequately.

Of course, use of these tools does not mean that the enterprises are actually getting the pricing right and managing their working capital well; it is a necessary but not sufficient condition. However, this finding contradicts suggestions in the literature that even this necessary condition is often not met.

Since all the enterprises had been in existence for more than 5 years (the majority of SMEs fail within 5 years according to a recent study by Kingston Smith), these organisations

could be considered exemplars in terms of the basic management accounting 'toolkit' needed for survival, from whom new or would be entrepreneurs could learn. In some small enterprises, formal budgets, responsibility centres and formal cost-volume-profit analysis were also employed where appropriate/relevant to the circumstances. The most significant difference between the medium-sized and small firms in our sample was that the former all used formal budgetary planning and control systems, responsibility centres and cost-volume-profit analysis (including modelling various 'what if' scenarios), whereas the latter sometimes did not.

Table 1 (below) shows the MA tools which were used when their use seemed appropriate (to us). The letter Y indicates that this management accounting tool was used by all the firms; the letter S indicates its use by some firms but not others.

Table 1.
Management accounting tools used when appropriate.

	Small	Medium
Product costing*	Y	Y
Break-even analysis	Y	Y
Working capital measures	Y	Y
Formal budgets	S	Y
C-V-P analysis	S	Y
Responsibility accounting	S	Y

*These were (standard) direct costs only, and did not include allocations of indirect costs. These product costs were used for pricing and product mix decisions.

Our overall impression was that with respect to the utilisation of these six management accounting tools,

*Informal C-V-P analysis – which we will refer to subsequently as "break-even analysis" - consisted of managers knowing roughly what their fixed costs were and how much sales revenue must be earned each month to cover these. Formal C-V-P analysis, on the other hand, consisted of managers, as part of the formal planning and budgeting process, calculating break-even point under alternative scenarios and formally modelling the impact of changes in the marketing mix or cost structure on break-even, margin of safety and target profit.

behaviour was appropriate (at least on cost-benefit grounds). Small enterprises might not really need some of the tools investigated, as medium or large sized enterprises would.

A good example is the use of a formal budgetary planning and control system. Most of the benefits of budgeting (coordination, control, motivation, communication etc.) are not applicable in many small firms where decision making is centralised -often all decisions being made by the same person. The only role for budgeting in such organisations is the resource planning/forecasting one, and the extent to which this is necessary depends on how financially constrained the firm is. We found that, where the enterprise faced very serious financial constraints (such as the availability of credit and low profitability), resource planning was a priority and formal budgets were used. Where not faced with such severe financial constraints, resource planning was not such a priority, given all the competing demands on management time, and so formal budgets were not used – unless required by external stakeholders, as discussed later in this paper.

Similarly, small, simple organisations with centralised decision-making, don't need responsibility centres, or to use responsibility accounting. Consequently, some of the small enterprises did not use these. The other management accounting tool which was used by all the medium firms but only a few of the small firms was formal C-V-P analysis. Small firms often have no influence over the variables in the cost-volume-profit model (selling price, variable costs etc.) since, having little or no market/negotiating power, they must act as 'price takers'. Consequently, there is little point in modelling alternative scenarios involving these variables. As a result, such firms felt that they would gain little benefit from formal cost-volume-profit analysis.

4.2 Individual Management Accounting Tools Not Used (where non-use seemed appropriate)

Table 2.

Management accounting tools whose non-use is appropriate in the circumstances.

The letter N indicates non-use of the particular management accounting tool concerned.

	Small	Medium
Standard cost variance analysis	N	N
Overhead allocations	N	N
Strategic Management Accounting	N	N

The lack of use of standard cost variance calculations/analysis could be considered appropriate as there is considerable research evidence (for example Johnson and Kaplan, 1987, Maskell and Baggley, 2004) to suggest that these variances are not considered useful by managers, being too aggregated and too late to facilitate effective operational control. In large firms, standard cost variances may be of use to senior managers for monitoring junior, operational managers, but in smaller firms this need, typically, is not perceived to arise.

The lack of overhead cost allocations we found is consistent with the findings of previous research (Langlois, 1996), suggesting that smaller firms tend (because of their more limited product range) to have a much higher proportion of their indirect costs in the form of facility sustaining, rather than batch level or product sustaining costs. The former, unlike the latter, are not properly attributable to particular products and should not be allocated to them. Thus, the failure of smaller firms to make overhead allocations seems (on cost-benefit grounds) appropriate in the circumstances.

The lack of strategic management accounting (SMA) seemed partly explicable by the fact that there was very little evidence of strategy –the emphasis being very much on tactical and operational management. Such strategy as there was tended to be, of necessity, 'emergent' rather than 'planned', making SMA tools less applicable. Also, for smaller enterprises, there is the additional problem that the information gathering required for SMA may well be prohibitively costly in terms of accounting resource. Although two of our SMEs did use customer profitability analysis, this was the only SMA tool of which we found evidence.

It seemed to us that, in the circumstances, failure to use these three tools was, therefore, appropriate on cost-

benefit grounds -involving substantial costs but very limited benefits.

4.3 Individual Management Accounting Tools Not Used (but whose non-use was questionable)

Table 3.

MA tools where non-use is questionable (Implying possible inappropriate behaviour)

	Small	Medium
Capital expenditure appraisal techniques	N	N
Relevant costs analysis for decision-making*	N	N
Tools for dealing with risk and uncertainty	N	N

*Actually a couple of SMEs had used this for occasional decisions, but most decisions were made without such analysis. The majority of the SMEs did not use this tool at all.

We found that management accounting tended to be used primarily for management control rather than supporting decision-making (with the exception of pricing and product mix decisions, for which direct product costs were used). This was illustrated by, the fact that:

None of the firms used capital expenditure appraisal tools such as Payback and NPV, but made decisions based on 'strategic' reasons or 'operational imperatives' – i.e. "we have to do this or we're in trouble" as one respondent put it;

There was little/no evidence of management accounting being used for short term decisions, for example, contribution analysis or relevant cost analysis. Such decisions, where they occurred, as with capital expenditure decisions, were made on other grounds with cost analysis playing little if any role.

We found that managers tended to make decisions without much, if any, management accounting information input. They claimed that this was because the decision-making situations they faced were not framed in the way suggested in the management accounting textbooks and were

not, therefore, amenable to financial analysis using the management accounting tools prescribed in the textbooks –identification of 'relevant costs', use of capital expenditure appraisal techniques and so on.

Some managers claimed that they typically didn't have a choice in their actions: the operational imperatives dictated the appropriate course of action. In one of our cases, for example, the respondents were asked how the decision was made as to whether to lease or buy the vehicle fleet (a classic DCF example in the textbooks). The reply was that "we don't have the cash to buy, and the banks aren't lending to small businesses in the current economic climate. So we have to rent!" A different company in our sample, however, took exactly the opposite position saying "We didn't think of leasing –maybe we will look at it in future" (implying that there is a potential role for management accounting decision support tools). There is the possibility in general that management accounting has a role to play in identifying alternatives that may be available, but which SME executives are not aware of.

Other managers claimed that there is too much uncertainty to permit the sort of formal financial analysis prescribed by the textbooks. The alternatives available are often not all known and the costs and benefits of the alternatives that are identifiable are surrounded by uncertainty; it is not therefore possible to meaningfully put numbers on the alternatives available. In this situation, the firm has no alternative but to use a tried and tested 'rule-of-thumb' to guide the choice of action (rather than a DCF analysis of relevant cash flows, for example).

We were not entirely convinced by these arguments concerning the non-applicability of management accounting tools to decision-making and felt it might be a case of the executives concerned not trying hard enough. Our impression was that there were broadly two possible explanations for why SME executives didn't typically use management accounting information in decision-making (with the exception, as noted previously, of general pricing and product mix decisions):

1. The psychological profile of entrepreneurs (it seemed to us) is often such that they are not naturally inclined to the sort of careful, painstaking analysis involved; they tend to be impulsive and tend to act on instinct/'gut-

feel'. To the extent that this is the reason, there is scope for improvement via training/education, for example in the contribution a 'business partner' could make- and indeed the management accounting tools themselves.

2. The sort of decisions they are faced with (unlike, say, large conglomerates) are not really susceptible to such financial analysis. There is, they believe, a very limited range of options available (often only one –as, for example, in one of the cases cited above concerning the decision to lease rather than buy the vehicle fleet). Also, the costs and benefits of such alternative courses of action as are available are not known, even roughly, unlike in the decision problems presented in the textbooks. In the typical decision faced by SMEs (other than pricing and product mix decisions, for which they use standard direct cost), the benefits tend to be in the form of savings in the opportunity costs of management time –for example, should we acquire a new ERP system? It is, the owner-managers believed, impossible to quantify these opportunity costs and so such decisions have to be made on the basis of other 'qualitative' factors. This may or may not, in fact, be the case: it might be that they are simply not trying hard enough, due to their natural disinclination to undertake the sort of analysis required. An accountant acting as 'business partner' could challenge this general assumption.

To establish the cogency of these competing explanations, further detailed research into the nature of decisions faced by SMEs is warranted – as perhaps is research into the psychological profile of SME executives (particularly owner-managers).

Overall, our impression was that there was scope for applying management accounting decision-support tools. This was based, for example, on the contrary case cited above where the respondent admitted that he hadn't thought of vehicle leasing and may well do in future – in other words, the decision was not dictated by operational imperatives and there is scope for a financial appraisal of the alternatives. Also it seems, intuitively, highly likely that decisions will occur from time to time in most enterprises where contribution analysis, relevant cost analysis and application of concepts like opportunity cost and the time

value of money are applicable.

4.4 Factors explaining the amount and type of management accounting undertaken

We identified a number of possible explanatory factors which influenced the amount and type of management accounting undertaken. These factors could be the subject of future, larger scale, research, designed to test their significance as influences on management accounting practice.

As already noted, size appeared to be an explanatory factor, with medium-sized enterprises tending to use more management accounting tools than small enterprises. This tended to be the result of the increasing complexity that accompanies increased size and the need for management accounting tools required for decentralized decision-making, such as budgets and responsibility centres, not relevant in smaller enterprises.

Within the small firms, there was significant variation in the amount and type of management accounting done, seemingly conditioned by the following factors.

1. The extent to which the firm was financially constrained (as indicated by low profitability and cash or credit constraints): the greater the extent of financial constraint, the more management accounting was done (in particular formal budgeting and C-V-P analysis). Several of our firms were severely financially constrained and used a wide range of sophisticated management accounting tools, including detailed budgets, formal C-V-P analysis and customer profitability analysis. In these firms, a top priority for senior management was careful financial analysis for planning, control and decision-making. Where there was less of a financial constraint, such analysis was less of a priority –given the opportunity cost of management time.
2. The educational background and professional experience of the owner-manager/decision-maker. We discerned three broad types of owner-manager: engineering or production orientation, sales or marketing orientation and commercial or financial orientation –the last

being more naturally inclined to engage in financial management and the first the least likely. However, due to our small sample size, it was not possible to separate the possible relationship between background and financial acuity from the effect of the firm's financial constraint on behaviour; there was some overlap between our firms, with some severely financially constrained firms also having owners/senior managers with a financial orientation. Future, larger scale research would need to separate the influence of these two variables. Our impression was that the extent of financial constraint was the dominant variable, but that "the owner-manager exercised a 'critical filter'" (Perren and Grant, 2000). These authors discuss how, based on their own research, "sources of management accounting knowledge for owner-managers include the prior experience of the owner-manager".

3. The nature of the firm's operations and the extent to which these afforded a predictive model. Application of many management accounting tools (such as budgeting and C-V-P analysis) requires the ability to predict costs and revenues with a reasonable degree of accuracy, such as when a business has a standard product and operates in a stable environment. In one of our firms, a jobbing I.T. services company, this was perceived by the owners to be lacking as every job was unique in terms of inputs (i.e. the amount of consultant time and skill grade required) and profit margins. A budget would be "out of date before the ink is dry". It was also claimed that due to the nature of operations - where consultants were simultaneously working on a number of jobs -it was not feasible to record actual labour time on particular jobs and thereby operate an actual costing system (labour being overwhelmingly the largest element of cost). Unpredictability of revenues and costs (and hence margins) also makes formal C-V-P analysis for planning infeasible. This firm does, however, monitor achievement of break-even on an on-going basis each month, based on its actual order book. They "get by" without formal planning and budgeting because, as a small player in a huge and fast growing market, they can be pretty confident that they can always earn enough revenue to cover their costs, without having to scrutinise the numbers too closely – unlike the severely financially constrained firms in our sample. Another factor influencing management accounting

practice in our small firms was the diversity of business segments: where this was significant, responsibility/profit centres were used; otherwise they were not. The amount and type of management accounting done is also influenced by the nature of operations – in both small and large enterprises. Manufacturing organisations which are tangible asset intensive are likely to measure different things than human capital intensive service businesses or charities. Future research could usefully investigate the link between business characteristics and management accounting tool use.

4. External stakeholder requirements. Two of the small enterprises we studied used formal budgetary planning and control because the providers of funds insisted on this –and on seeing the monthly management accounts. One was a registered charity in which donors required detailed management accounting information and systems to be in place. The other operated a business model that involved borrowing large sums of money from the bank and using this to buy motor vehicles to rent out to its franchisees. This resulted in very high financial gearing and the bank required regular detailed management accounting information – budget reports, evidence of C-V-P analysis to support scenario planning and so forth.

Conclusions

The findings of our exploratory study suggest a number of areas where management accounting education could contribute to improved SME performance. Firstly, there is scope for wider dissemination of the accountant as 'business partner' concept both among SME executives and accountants. For small enterprises there is typically no in-house accountant and the only contact with accountants is with the small accounting practice (SAP) that provides the statutory compliance and taxation services. There appears to be scope for the accountants in SAPs to be more proactive in selling/marketing management accounting services (including as business partner). SME executives could benefit from education to dispel the 'bean counter' image and thereby encourage them to use management accountants – either by provision of in-house resource or by asking their SAP. In the medium sized enterprises, the in-house accountants need to stop acting like bean counters; there is scope for educating accountants in how to act as business partners.

Whether done by the owner-manager or by a business partner accountant, the cost-benefit calculus concerning the use of management accounting tools could be altered by the use of IS/IT systems. Although we did not obtain evidence concerning whether SMEs just used Excel spreadsheets or integrated software solutions, the latter could save scarce time and money. Future research in this area might be relevant to CIMA with respect to its educational activities, i.e. educating SME executives and accountants in the use of integrated software solutions.

Secondly, there appears to be scope for raising the awareness among SME executives of the existence and applicability of

management accounting decision-support tools, including contribution and relevant cost analysis, capital expenditure appraisal techniques and tools for dealing with risk and uncertainty (expected values, decision trees and payoff matrices).

Thirdly, there is scope for educating new and would be future entrepreneurs on the basic 'toolkit' for survival, based on the shared experience of the exemplar organisations we studied – that is the need for product costing, break-even analysis and working capital management which all our enterprises considered fundamental and use of which may have helped them survive when so many SMEs have not.

Fourthly, there may be a need for the provision of management accounting education for SME executives, especially in the circumstances in which their businesses are expanding. Although failure to use certain tools (such as budgets, responsibility centres and overhead allocation techniques) may be appropriate for a small enterprise, it may not be for a larger one: there will come a point where some of the techniques currently not used, will become relevant. This tipping point will vary from enterprise to enterprise, but will be determined by the emergence of decentralised decision-making and increased scope in product range.

Finally, we recognise that, due to the small size of our sample, the findings reported here may not be generalisable. They do, however, provide some hypotheses which can be tested by future research on a larger scale.

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