Management accounting tools for today and tomorrow

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Acknowledgements

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Survey design by Ivan Kovachev; data analysis by Ivan Kovachev and Louise Ross; report by Louise Ross and Ivan Kovachev.
About the survey

The CIMA management accounting survey asked about current and intended usage of more than 100 management accounting and related tools, and was completed by 439 respondents in July 2009.

The survey covers techniques familiar to other management disciplines, and includes general approaches as well as the applied techniques suggested by the term ‘tools’.
A selection of management accounting tools

The survey covers 11 categories of management accounting tools, split into operational, managerial and strategic groups. The number of tools in each category varies from five (reward systems) to 16 (strategic tools). Use of the tools is not mutually exclusive – for example in relation to the operational group’s ‘pricing tools’ category, different segments of the business may use different pricing strategies, or two or more tools may be used in combination (for example cost-plus pricing and transfer pricing between business units).

The importance of selection

Management accountants must choose the right tool for the specific context, a decision based on their technical knowledge, professional experience and judgement. While an accountant involved in financial reporting operates in a standardised environment that allows little choice, a management accountant must use a wide range of skills to choose the right tool for the job.

A healthy turnover

Using the right tool for the right context means that practices change as organisations’ needs change, and also as new tools are introduced, proven and disseminated throughout regions or industry sectors. The management accountant should reassure users that such a ‘turnover’ in the use of tools is natural and beneficial, and does not signify a sudden lack of confidence in a tool, or an admission that its former application was a mistake.

What the survey tells us

The survey asks respondents both about their current use of tools, and their intentions to drop or adopt tools. From this we can draw conclusions about the extent to which respondents have settled on their range of tools, or are searching for better solutions. The information captured by this survey represents practices and intentions from the surveyed population as at summer 2009, which can be compared to other relevant surveys, and act as a ‘snapshot’ or baseline benchmark for ongoing CIMA research.

Interested parties

This paper identifies the most popular current management accounting tools in each category. Further data from the survey will be published subsequently, to allow practitioners to identify those tools which most respondents intend to adopt within the next two years, which might therefore be worth investigating by non-users; the least popular tools, and those which current users most intend to drop – results which may indicate that certain tools are becoming outdated, or are a source of disappointment to users.

Other management disciplines may be interested to learn about the range of tools (or functions) with which the management accountant is or can be familiar, and also about general developments in the discipline. This will be of interest too to relevant teaching and research academics. Consultants, software developers and other solution providers will be interested in the identification of popular and unpopular tools, and trends in their usage.
1. Overview of results

The ten most used management accounting tools across the whole survey are shown in figure 1.

Figure 1: Most used tools (percentage of respondents)

1.1 Organisation of the finance function

It is interesting to note some of the responses in respect of the organisation of the finance function.

- Just over 50% of respondents advise that their finance function is organised as a shared service centre which serves all business units.
- 26% of respondents advise that some finance activities have been outsourced.

1.2 The influence of organisation size

For most management accounting tools the size of the organisation is a factor: larger organisations are more likely to use each tool. This was seen even for simple tools – for instance more of the very large organisations use payback, an unsophisticated investment decision making tool.

There were some areas where organisation size did not seem to influence usage – strategic tools and, to a lesser extent, budgeting tools.
1.3 The range of tools currently in use

Most organisations use a range of management accounting tools. An average for each category is given, but further research is needed to determine which types of organisation, or which region or industry sector, use most tools as this may suggest dissatisfaction with current techniques or a willingness to experiment.

1.4 The tools most likely to be introduced soon

As an indication of how the management accounting discipline is developing in the short-term it is particularly interesting to look at those tools which respondents intend to adopt within the next two years, as follows (figures in brackets are the number of respondents intending to introduce that tool):

1. Balanced scorecard (50) – the tool most likely to be adopted soon, and already very popular.
2. Customer profitability analysis (36).
3. Rolling forecasts (34) – already very heavily used, and apparently to become even more popular.
4. Activity based management (ABM) (31).
5. Environmental management accounting (29).
6. Product/service profitability analysis (28).
7. Activity based costing (ABC) (25) – although evidence from other studies suggests many users do not achieve full implementation.
10. CIMA strategic scorecard (22).
2. Responses by sector

Half of the survey’s respondents are employed in the service sector, made up of professional services, financial services and other services (see figure 2). Almost one third of the responses are from the manufacturing sector. Note that the sector labelled ‘other’ comprises ‘public and education’ and all ‘other’ responses (from industry sectors such as retail and trade; IT and telecommunications; hospitality etc).

Figure 2: Responses by sector

Figure 3 shows how the responses by sector are split across the five regions of the survey. This shows that in the Asian and Europe (other than UK) regions, more of the responses are from manufacturing in comparison to other regions.

Figure 3: Responses by sector within region
3. Responses by region

Figure 4 shows that a large proportion (61%) of the respondents is based in the UK. Almost all respondents are CIMA members who have been specifically invited to complete the survey, with a very small number of other respondents. The regional composition of respondents to the survey therefore reflects global CIMA membership, which is 75% UK based.

Only 12% of the respondents are from those regions which make up the survey category ‘Rest of World’. This comprises any region with less than 30 respondents rather than an attempt to group regions with similar economic or cultural contexts. We intend to encourage more respondents from these regions for future surveys, to explore regional patterns better.

Analysis of the size of organisation from these regional sub-samples shows there is a bias towards smaller organisations in the Africa sub-sample (see figure 5). When any Africa results are considered, therefore, it should be borne in mind that the results are influenced by organisation size as well as region.
4. Responses by organisation size

Figure 6 shows that over half of the survey’s respondents are employed by organisations that are either large (more than 250 employees) or very large (more than 10,000 employees).

Data on the number of business units could only be collected for 110 respondents, but there are no grounds for supposing this analysis is unrepresentative of the entire sample. The results are shown in figure 7. Although more than a quarter of organisations have only one business unit and about four-fifths have five or fewer, the average number of business units within respondents’ organisations is five. This average is influenced by the fact that some very large multinational organisations have hundreds of business units.

Figure 7: Number of business units within the organisation
5. Operational tools

This section is concerned with the traditional operational tasks which the organisation demands of its management accounting function:

• costing of activities
• pricing of products and services
• analysis of the profitability of revenue generating activities
• effective allocation of resources by means of budgeting and investment appraisal techniques.

Respondents were also asked about a range of other operational management accounting tools, including:

• quality philosophies such as total quality management (TQM) and benchmarking
• approaches which are heavily IT-dependent such as customer relationship management (CRM)
• applied and mathematical techniques such as linear programming.

5.1 Costing tools

Figure 8a shows the relative popularity of costing tools. The more traditional tools of variance analysis and overhead allocation remain the most popular.

Figure 8a: Relative popularity of costing tools

The results indicate that respondents use a range of costing tools – on average, an organisation will use four from the 14 tools surveyed. The larger the organisation, the more likely it is to use any tool and the more tools it uses. Figure 8b shows that the largest organisations are the heaviest users of all tools, with the exception of quality costing.
Some tools are very resource intensive, ABC for example, and this may explain the relative reluctance of smaller organisations to implement certain tools. ABC is used by only 22% of small organisations in the survey, compared with 46% of very large organisations.

The pattern of larger organisations using more tools may also reflect the increased complexity of those entities, and a consequent need to call on a range of tools for different contexts.

It seems worth noting therefore where results for individual tools or entire categories of tools, buck this trend, i.e. where smaller organisations appear to use as many tools as larger entities. This is the case with integrated cost and financial accounts for instance: 29% of small and only 28% of very large organisations use these. We see it too with target costing (used by 18% of small and 14% of very large organisations) and quality costing (used by 9% of medium and 2% of very large organisations).
5.2 Pricing tools

Figure 9a shows that pricing tools are also generally used more heavily by larger organisations than smaller entities. On average, respondents use just over two pricing techniques from the six surveyed.

Figure 9a: Use of pricing tools by organisation size

Figure 2 showed that 19% of responses are from organisations which are neither manufacturing sector nor service sector entities, that is they are from the ‘other’ and ‘public and education’ categories. Presumably, many of these entities have a not-for-profit orientation, particularly in the ‘public and education’ sector, so in relation to profit oriented issues such as pricing it is useful to focus only on the results for manufacturing and service sector respondents.

There are two pricing tools whose usage varies significantly by sector – cost-plus pricing and transfer pricing (see figure 9b).

Figure 9b: Use of selected pricing tools by sector
Figure 9b shows that both tools are much more commonly used in the manufacturing sector. This is not unexpected, as it reflects the tendency of manufacturing entities to locate production where wages or tax rates are low, or where raw materials are more readily available. In addition it reflects the link between the two pricing methodologies; the transfer price between business units is generally full cost, while the price to the end user is often full cost plus a profit margin.

The service sector seems comparatively keener on introducing new pricing tools, showing some interest in them all (see figure 9c) but especially in market sensitive pricing and segmental pricing.

Figure 9c: Interest in pricing tools by sector

<table>
<thead>
<tr>
<th>Pricing Tool</th>
<th>Manufacturing</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost-plus pricing</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Market sensitive pricing</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>Segmental pricing</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>Price Skimming</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>Penetration Pricing</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Transfer pricing between BU</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>

This might reflect a more flexible approach to pricing in the service sector, as price comparison is much harder for clients who use services than for customers who buy products. In addition an organisation in the service sector might tend to prioritise other considerations than short-term profit, such as:

- its relationship with the client (whether gaining a new one, or keeping an important existing client)
- the need to gain experience or profile in a new market
- the need to keep resources deployed
- the need to cross-sell other services.

Thus the service sector might have a greater interest in segmental pricing (different prices for different markets), penetration pricing (used to enter new markets or deepen market share) and market sensitive pricing.

Looking at organisation size, there were two results of note. 11% of very large organisations who do not currently use market sensitive pricing propose to introduce it within the next two years (64% currently use it), and 10% of small organisations propose to introduce segmental pricing (but only 22% currently use it).
5.3 Budgeting tools

Again the results show that organisations use a range of budgeting tools – on average just over four, from the nine surveyed.

Figure 10a: Use of budgeting tools by size of organisation

Figure 10a shows the relative popularity of budgeting tools, from beyond budgeting (the least popular) to financial year forecasts (the most popular overall).

The smallest companies make the least use of budgeting tools. This is understandable and expected; budgeting literature suggests that small entities use less sophisticated budgeting techniques as owners have greater control and oversight of expenditure. However, this size effect is not as apparent in the use of the top three budgeting tools as it is in many operational tools – financial year forecasts, cash forecasts and rolling forecasts are used by all organisations to a similar extent regardless of size.
We did not observe significant regional differences in the use of budgeting tools, with the exception of rolling forecasts and financial year forecasts, both of which seem relatively unpopular with Africa respondents.

Figure 10b: Use of rolling forecasts by region

- **Rest of World**: 66% users, 9% intend to introduce within 2 years, 26% assumed no interest
- **Africa**: 40% users, 57% intend to introduce within 2 years, 9% assumed no interest
- **Asia**: 68% users, 2% intend to introduce within 2 years, 29% assumed no interest
- **Rest of Europe**: 69% users, 6% intend to introduce within 2 years, 25% assumed no interest
- **UK**: 67% users, 10% intend to introduce within 2 years, 23% assumed no interest

Figure 10c: Use of financial year forecasts by region

- **Rest of World**: 87% users, 11% intend to introduce within 2 years, 2% assumed no interest
- **Africa**: 67% users, 30% intend to introduce within 2 years, 3% assumed no interest
- **Asia**: 79% users, 21% intend to introduce within 2 years, 2% assumed no interest
- **Rest of Europe**: 86% users, 14% intend to introduce within 2 years, 1% assumed no interest
- **UK**: 88% users, 12% intend to introduce within 2 years, 0% assumed no interest

Note that three budgeting tools – financial year forecasts, cash forecasts and rolling forecasts, make it into the top ten most used management accounting tools overall (figure 1). Figure 10b however suggests that rolling forecasts have not yet peaked in popularity, in comparison with financial year forecasts which appear to be used by every organisation interested in them (at least in Asia, UK and the rest of Europe).
5.4 Profitability analysis tools

Profitability analysis tools are another category where the pattern is observed of increasing use as organisation size increases (figure 11a).

Figure 11a: Use of profitability analysis tools by size of organisation

Respondents use on average two profitability analysis tools. Notable results are:

- there is high overall level of interest in product/service profitability analysis and customer profitability analysis (in particular note the spike for medium companies in the use of customer profitability analysis, figure 11a)
- there is comparatively heavy use of customer profitability analysis in the rest of Europe, with 61% of respondents currently using this tool, compared to 36–47% of respondents in all other regions. There is also relatively high interest in customer profitability analysis from all regions, with 10–16% of those not currently using this approach intending to introduce it within the next two years
- that economic value to customer was not used by any Asia respondents, although the averages for all other regions ranged between 4–10%, and peaked for Africa where 20% of respondents currently use this technique.

Figure 11b shows in more detail the widespread interest in profitability analysis tools. The most popular tool is product/service profitability analysis with 17% of UK non-users, 12% of rest of Europe non-users, 22% of Asian non-users and 13% of African non-users intending to introduce this tool.

Figure 11b: Interest in profitability analysis tools by region
5.5 Investment decision making

On average, respondents use between three and four investment decision making tools of the ten surveyed. The surprise apparent from figure 12a is the relative popularity of payback, which is the least sophisticated (one might even say, crudest) appraisal technique.

Figure 12a: Relative popularity of investment decision making tools

Figure 12b shows that payback retains a strong foothold, even in the very largest organisations, which presumably have more and larger capital projects and more specialist finance staff, thus might be expected to use more sophisticated techniques.

Figure 12b: Investment decision making in very large organisations
Figure 12b shows that while one in six very large organisations use capital asset pricing model (CAPM) and one in seven use real options to evaluate investment decisions, they are not as widely used as the other tools. This seems surprising as both tools are well established, relatively easy to use and widely taught.

Another unexpected result is that respondents from small organisations report using investment appraisal tools (especially CAPM and real options) more than medium entities. 8% of small organisations use CAPM, compared with 3% of medium organisations, and 4% use real options compared with 2% of medium organisations.

5.6 Other operational tools

This is an interesting category, as organisation size does not seem to be such a strong influence on tool use. On average, respondents use just over two operational tools out of nine surveyed. Figure 13 shows that although all these tools are used more by the largest organisations, this tendency is not as strong as for other tool categories.

Figure 13: Use of operational tools by size of organisation

Benchmarking is the dominant management accounting tool for organisations of all sizes though it is less prevalent in the (possibly more secretive) small organisation.

Also popular are 360 degree reviews, customer relationship management (CRM) and total quality management (TQM) – though this last is not as popular in very large organisations as in medium and large ones. It is possible that very large organisations have bespoke quality initiatives designed for them, which they do not consider TQM.
6. Managerial management accounting

This section is concerned with how performance is measured, managed and rewarded. The nature of some of these management accounting tools – with their reference to profit, or capital employed – suggests it is necessary to adjust for the influence of industry sector.

6.1 Performance measurement tools

Figure 1 showed that profit before tax is the second most widely used management accounting tool overall. Figure 14 shows clearly that when it comes to the use of performance measurement tools by sector, profit before tax is the most widely used measure. On average organisations use between two and three performance measurement tools out of the five surveyed, a relatively high proportion compared to other categories of tools.

Figure 14: Use of performance measurement tools by sector

Three of these performance measurement tools are among the most used of the 100+ in the entire survey – ROCE, CFROI and profit before tax are all in the top 20 most used tools, illustrating the importance of these measures.
6.2 Performance management tools

The common pattern of increased popularity of tools by successively larger organisations is very notable for performance management tools (figure 15a). On average organisations use just under two out of eight performance management tools. Large organisations use on average twice as many performance measurement tools as small or medium ones.

Figure 15a: Use of performance management tools by size of organisation

Figure 15a shows the balanced scorecard is the most widely used measure in all organisations. Other surveys confirm similar results for the balanced scorecard, for example it is used by 60% of Fortune 1000 (i.e. very large) companies. Its popularity shows no immediate signs of abating, it being the most likely tool (of all those in our survey) to be introduced by current non-users of all sizes (see figure 15b).
Figure 15b: Interest in performance management tools by size of organisation

- Total performance scorecard
- Value based management
- Value mapping
- Performance prism
- Business process re-engineering
- Activity based management
- Six sigma
- Balanced Scorecard

Percentage of non-users proposing to introduce tools within two years:

- Very large
- Large
- Medium
- Small
As a category, performance management tools are the ones that most respondents intend to introduce in the next two years; they are approximately three times as likely to be cited as other categories of tool. This was observable across all industry sectors, and all regions. Of particular interest to respondents are balanced scorecard, ABM, BPR and total performance scorecard.

Note that figure 15b shows that no very large organisations, which generally use the most management accounting tools, intend to introduce Six sigma in the near future.

Overall, the proportion of current users of Six sigma was 14%. This is a smaller percentage than that recorded by another survey which found Six sigma was used by 22% of its respondents, but that population may have been biased since respondents were readers of a publication about quality initiatives. The findings from this other survey did however confirm the relative popularity of Six sigma in the manufacturing sector, also commenting on the high proportion of those using Six sigma who seem to stop after three or four years.

Figure 15c shows that (with the exception of ABM and Six sigma) most tools were similarly popular across all sectors.

Figure 15c: Use of performance management by sector

![Figure 15c: Use of performance management by sector](image_url)

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1 Quality Digest Survey 2870 respondents at [www.qualitydigest.com/feb03/articles/01_article.shtml](http://www.qualitydigest.com/feb03/articles/01_article.shtml) which included results from Dyncorp survey.
6.3 Reward systems

Four tools were surveyed, including executive incentive schemes (for senior directors) and management incentive schemes (for managerial roles). On average, organisations use just under two reward systems.

Figure 16a shows the regional analysis, which indicates that profit sharing schemes seem relatively unpopular in Asia, with only 13% of respondents currently using them, and relatively popular in Africa, where 37% of respondents currently use them. Of the other regions, the UK behaves more like Africa (with 27% currently using profit sharing schemes), and rest of Europe and the rest of World behave more like Asia (with 16% and 19% of respondents respectively using them).

Figure 16b shows that small organisations appear to behave more like large organisations when it comes to profit sharing schemes (i.e. they both use them much more than medium sized organisations). This may be explained by the fact that the employees of micro and small companies are typically other family members and the owners are more likely to be giving them a share of the profit. Medium sized organisations may tend more to be privately owned, thus owners do not feel obliged to share a percentage of their profits with the staff. Finally large and very large organisations may find incentive schemes more effective than ‘command and control’ management to motivate the desired behaviour amongst a numerous and dispersed workforce.
This section is concerned first with how profit and performance are reported to senior management and (often as key performance indicators or KPIs) to external stakeholders, and second with the use of strategic management accounting tools to support strategic decision making.

### 7.1 Performance reporting tools

Respondents used a combination of measures to report performance, on average just under three from the five surveyed. Gross margin after full cost of sales, net profit margin after allocation of overhead and contribution after variable costs are the most widely used tools.

**Figure 17: Use of performance reporting by region**

Figure 17 shows how usage is relatively uniform across all regions, with the exception of the relative underuse of segmental contribution after attributable costs in Africa. This is used by only 20% of respondents in Africa, around half of the 38–43% of users in all other regions.

### 7.2 Strategic tools

This was one of the categories which offered the most tools (15), and on average, respondents used just over five strategic tools. Figure 18a shows that strategic planning is the most popular tool, used by 72% of all respondents, followed by SWOT analysis (64%) and risk management (60%).
Figure 18a: Relative popularity of strategic tools

- Strategy mapping
- Core competencies
- CIMA strategic scorecard
- Long-range and business planning
- Risk management
- Environmental impact assessment
- Mission statement
- Value for money audits
- Value chain analysis
- Value engineering or value analysis
- Competitor analysis
- Strategic planning
- SWOT analysis
- Boston matrix
- Environmental management accounting

Figure 18b: Use of strategic tools by size of organisation

- Small
- Medium
- Large
- Very large
This is another category where the usual pattern of 'larger organisations use tools more' is not so
marked. Figure 18b shows only a slight tendency for larger organisations to use more tools than
smaller organisations.

The difference between usage by the smaller and larger organisations seems concentrated in the six
or so least used tools (those at the far right of each set of blocks). This may suggest a willingness from
larger organisations to experiment with new tools or it may illustrate a need for finance or management
teams to grow above a critical mass to achieve early exposure to strategic tools (via professional
qualifications, MBAs, contact with consultants or desk research).

It is notable that large and very large companies are using environmental management accounting
about three times more than small companies. This may be explained by the impact of legislation
requiring large public organisations to declare their carbon footprint, and by the introduction of
emissions trading schemes for large companies. Similar results are noted with respect to environmental
impact assessment.
8. Conclusions

Readers can find an overview of the results at the front of this report. Some conclusions are suggested:

8.1 Number and variety of tools

Our survey showed that management accountants use a number of tools, on average 33, across a range of operational, managerial and strategic functions. This demonstrates the wide range of organisational performance for which the management accountant can provide data.

8.2 Traditional versus new tools

The tools used are a mix of ‘traditional’ and new tools. This seems a healthy state for any discipline. It suggests that the discipline has a solid foundation, and principles which endure yet are refined so that the body of knowledge is continually expanding. However, some traditional tools are still widely used despite the comments by academics and consultants that they should be discontinued. For example, many textbooks comment on the unsuitability of payback as a means of investment appraisal. Yet it remains popular, despite there being simple alternatives which give more informative results.

Budgeting is an area where many commentators suggest that traditional practices have become outdated. Dedicated movements have evolved to champion both beyond budgeting, and better budgeting; and there is a large body of literature which comments generally on the tendency for budgets to trigger game-playing, budget-padding and other sub-optimal behaviour. However, it would need a radical re-invention of budgeting and performance management to persuade users there are alternatives to cash forecasts, and financial year forecasts (both of which are amongst the most used tools).

8.3 Size and regional variations

Size is an observable influence on tool use, as figure 19a shows. The larger the organisation, the more tools it uses. Where this is not the pattern, suggests that those tools are more appropriate for smaller organisations.

Figure 19a: Average number of tools used (organisation size)

The manufacturing sector uses the most tools, followed very closely by the financial services sector. Results which jump out are the relative popularity of Six sigma, and relative unpopularity of ABM for the manufacturing sector (see figure 15c).

The public sector tends to use fewer tools overall, but those it uses tend to be strategic tools. This is probably because the public sector uses less pricing and costing tools, due to the lack of a profit motive in these organisations.

2 By ‘traditional’ we mean the relatively simple and long-established tools such as mainstream budgeting practices, standard costing techniques, payback etc.
8.4 Current issues for respondents

Respondents were asked ‘What are the main issues currently confronting the management accounting function in your organisation?’ 199 respondents replied (45% of the sample); and the issues which most concern them are:

- software issues such as outdated, inflexible or poorly integrated systems (requiring manual reconciliations or other interventions to create reports) or a lack of strategic vision for IT
- aspects affecting the quality of information they provide users – demands for better or more timely information, or bespoke or more standardised information
- a shortage of resources – both the lack of suitability qualified finance personnel in finance and other departments, and a lack of investment in finance
- a lack of understanding about the contribution possible from management accountants, both from the accountants themselves (admitting to inadequate knowledge of tools) or a lack of co-operation and appreciation from users.

The survey itself proved to be a helpful tool. Several respondents comment that it was useful to be reminded of (or in some cases introduced to) all the tools available for particular purposes. When respondents receive the detailed results, they will be able to benchmark their practices against their peers; and consider whether they are using the best set of tools for their needs.

Further reports on the survey data will focus on regional, size and sector variations; and the future development of the finance function.
References

Quality Digest Survey (2003) Six Sigma Survey
www.qualitydigest.com/feb03/articles/01_article.shtml