Change in the Management Accountant's Role: Drivers and Diversity

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Change in the Management Accountant's Role: Drivers and Diversity

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Abstract

"Management accounting change" has been used to express a paradigmatic shift in expectations of the management accountant, encompassing two types of development: the adoption in practice of new tools and techniques, often with some academic provenance, and a practitioner-led movement towards a new role type in which the accountant acts more in an advisory capacity, integral to managerial decision-making, rather than solely as a provider of information. This latter form of change has attracted less academic attention and there is a paucity of evidence as to the current extent of change as well as the relative influence of suggested drivers of change, variations in which could result in a greater diversity in practice across organisations than is portrayed in the practitioner literature.

These gaps in the literature may be attributed in large part to a lack of current, broad-scale data on the activities of management accountants, which we seek to remedy in this study through the use of data on the importance of 27 activities/issue in which management accountants are involved, drawn from an international survey of the membership of the Chartered Institute of Management Accountants (CIMA) in 2007 with over 4 600 responses. Given the sample size and its diversity in terms of the types of organisations represented, it is possible to both assess the extent of role change and test for observable effects of the suggested drivers.

On the basis of factor analysis, we identify six role types for the management accountant, one of which clearly embodies activities/issues which have been suggested as indicative of the new role type, thus providing empirical evidence for that characterisation. However, at the aggregate level, the ranking of activities/issues associated with this new role type is found to be highly mixed and dominated by others associated with more traditional roles, which we interpret in terms of role change being an evolutionary process with specific activities becoming more important at varying rates. Furthermore, by comparison to results from a similar survey conducted five years previously, we observe a degree of inertia which suggests that the process of change is taking considerably longer than predicted in earlier studies.

Applying both contingency and institutional theories to analyse the suggested drivers of role change, we identify variables representing pressures for change, the relative strengths of which are hypothesised to account for diversity in responses within the sample. These hypotheses are tested using ordered logistic regressions to model the relationship with the categorical measure of activity/issue importance, which show that organisational size is a more powerful predictor than measures of economic globalisation and sectoral competitiveness. We interpret this finding in terms of size as a proxy measure for causative factors (isomorphic pressure and operational complexity) and the enabling factor of resource availability (e.g. to support retraining and restructuring) but on the evidence here do not reject the hypotheses that globalisation and competition play a role in driving role change.

We also identify strong effects associated with the respondent's functional attachment and their seniority, in that those working outside the finance function and/or in more senior roles ascribe much greater importance to activities/issues associated with the new role type and less to those associated with traditional roles, suggesting that diversity in the uptake of the new role type is associated with personal, as well as organisational, characteristics and that future research should be as sensitive to diversity within organisations as between them.

Introduction

Over the last 20 years – many writers point to the work of Johnson and Kaplan (1987) as seminal in this respect – there has been a paradigmatic shift in the expectations of the management accountant.[1] "Management accounting change" has been widely used as an expression of this shift (see, for example, Burns and Vaivio, 2001), encompassing two types of development: the adoption of new tools and techniques which potentially enhance accounting practice, on the one hand, and, on the other, change in the role that the accountant performs, towards acting more in an advisory capacity integral to managerial decision-making rather than solely as a provider of information. Conceivably, both types of management accounting change may be observed simultaneously in a given organisation, indeed it has been suggested that they may be subject to the same normative pressures (Granlund and Lukka, 1998a), but empirical evidence suggests that they are not mutually dependent. For example, Burns and Baldvinsdottir (2005) document a case in which the expected roles of accountants undergo a radical change without "any noteworthy adoption of 'advanced' management accounting innovations or techniques" (p.748). Thus, the two types of change are distinct phenomena capable of independent investigation.

Without suggesting that either type of change is more important than the other, academically or to the practitioner, the accounting literature has devoted much greater attention to the development of practices than to roles. This may simply reflect a longer tradition of study but arguably a more forceful reason lies in the greater tractability of examining the translation of discrete ideas with some academic provenance and normative value into practice compared to that of the broader and less clearly defined nature of practitioner-led role change. Thus, academic investigation of role change has emerged more recently in the form of positive investigations, initially through practitioner surveys providing evidence of the existence and broad nature of role change (Burns and Yazdifar, 2001; Siegel and Sorenson, 1999; Burns et al., 1999; Mathews, 1998) and subsequently through more detailed analysis relying on case studies (Burns and Baldvinsdottir, 2005) or limited sample interviews (Byrne and Pierce, 2007).

Taken together, the body of work on role change constitutes an outline sketch to which detail and colour must be added to obtain a complete picture of the nature and causes of change to date, both vital to understanding future developments. Specifically, there is a need to recognise the potential differential effects of drivers of change at the organisational level and how these may be translated into diversity at the individual level. By contrast the practitioner literature has tended to suggest that a radical change in the role of the accountant at the CFO level and below has been occurring (see, KPMG, 2006; ACCA, 2006 and ICAA, 2001 as more recent and earlier examples) but the evidence for this scale of change is slight. Granlund and Lukka (1998a) argue that from an international perspective "drivers of convergence have started to dominate those of divergence" (p.155) as regards change in management accounting practices, and suggest that at least some of these drivers are shared with role change. However, they note that "particularities" of the organisation constitute countervailing forces which may result in diversity among organisations characterised by, for example, type of business activity, size etc. and the possibility of such diversity is supported by evidence of variation in the importance of study topics among management accountants operating in different sectors and countries (Cooper, 2006). Existing "large-scale" empirical studies, as cited above, have not provided evidence of the extent of diversity and its causes in terms of the impact of drivers of change suggested by theory primarily because of their relatively restricted samples, in terms of size and homogeneity of the sample.

[1] Throughout, the term "management accountant" is used to refer to an individual who has specialist accounting training and works in an organisation that is not primarily concerned with providing auditing and taxation services, rather than to someone predominantly concerned with practising the discipline of management accounting.

Furthermore, the currency of the results from those studies requires assessment given the rate of change suggested at least in the professional literature (see, for example, KPMG, 1998).

As a response to this need, this study seeks to provide evidence of the extent of role change from a range of organisations differentiated across the dimensions that might be influential (size, sector, country etc.), thus enabling tests of theoretical explanations, using data from an international survey of the membership of the Chartered Institute of Management Accountants (CIMA) in 2007, which attracted over 4 600 responses. In particular, the survey instrument included questions on the importance to the respondent's organisation of activities and issues dealt with by management accountants. Analysis of the relative importance of these activities/issues indicates the extent and nature of change in management accountants' roles. Furthermore, the size of the sample and variation in respondent characteristics enable a systematic examination of the theoretical determinants of diversity among organisations. In contrast to previous studies, the scope includes an international cross-section and recognises various business sectors and the public sector.

The following section reviews existing evidence on the nature of role change and its drivers, and uses this evidence to frame expectations as to the activities most likely to be associated with role change and to formulate hypotheses as to sources of diversity in the observed extent of role change in the context of contingency and institutional theories. Subsequently, these expectations and hypotheses are tested using data from the aforementioned survey, after providing details of the survey method. The paper concludes with a discussion of the observed diversity in change in management accountants' roles and its determinants based on the evidence obtained, and implications from the study. This discussion is also informed by focus group discussions and semi-structured interviews conducted with CIMA members and employers of such members on the basis of results obtained in the survey.

The Nature, Extent and Drivers of Role Change

A variety of terms has been used in the literature to describe the new type of role to which the management accountant is or should be aspiring, including acting as a "modern business-oriented accountant" (Granlund and Lukka, 1998b), "business partner" (Siegel and Sorenson, 1999); "internal business consultant" (Burns and Vaivio, 2001); "strategic management consultant" (Holtzman, 2004), or "hybrid accountant" (Burns and Baldvinsdottir, 2005). Nevertheless, common themes emerge which enable some characterisation of the new type of role in the following terms[2]:

- Less emphasis is placed on technical knowledge and traditional skills, although these are still recognised as important in the new role (Burns and Baldvinsdottir, 2007; Howieson, 2003; Parker, 2001). Thus, the new role relies on supplementary knowledge and skills notably in the consideration of non-financial information in the accountant's work (Burns and Baldvinsdottir, 2007; Parker, 2001; Boer, 2000; Robinson, 1999; Vaivio, 1999; Granlund and Lukka, 1998b).
- Critically, the accountant is closely involved in decision support and providing advice throughout the business, on both strategic and operational matters (Burns and Baldvinsdottir, 2005; Burnett, 2003; Howieson, 2003; Parker, 2001; Boer, 2000; Maher, 2000; Granlund and Lukka, 1998b; Ezzamel et al., 1997), applying specialist technical knowledge to the wider context of the business (Howieson, 2003) while employing a more forward-looking orientation (Byrne and Pierce, 2007).
- Management (in its broad sense encompassing of people, change and risk etc.) and leadership are of greater importance in the accountant's activities (Burns and Baldvinsdottir, 2007; Howieson, 2003; Parker, 2001; Robinson, 1999; Granlund and Lukka, 1998b).

[2] References are confined to the academic literature but these themes are widely echoed in the professional literature.

In pursuit of this new type of role, it is also envisaged that the accountant's working methods change, in particular with an increased emphasis on collaboration outside the finance function and working in cross-functional teams (Burns and Baldvinsdottir, 2007, 2005; Byrne and Pierce, 2007; Howieson, 2003; Maher, 2000; Robinson, 1999; Granlund and Lukka, 1998b; Ezzamel et al., 1997).

Despite the consensus as to the broad characterisation of the change in the nature of the management accountant's role, empirical evidence indicates that its translation into practice has been limited. Traditional responsibilities apparently remain dominant in terms of demands on accountants' time: Gould and Fahy (2006) report statistics provided by a US consultancy firm (Hackett Group) that 66% of time is allocated to transaction processing and only 11% to decision support, while a global survey of chief financial officers by IBM (2005) puts this ratio at 47%:24% respectively. Similarly, more detailed evidence on specific tasks and activities undertaken by the management accountant indicates relatively weak adoption of the new role. Among the "top 10 tasks that were vitally important … over the past five years" for CIMA members reported by Burns and Yazdifar (2001), the five items most commonly cited (by more than 60% of the sample) are readily associated with the traditional role, e.g. "business performance evaluation", "cost/financial control", "interpreting/presenting management accounts". Only two items in the top ten ("profit improvement" and "implementing business strategy") are suggestive of the new role type and even these may be seen as responsive to management demands rather than as representing the proactive nature of the new role type. US evidence (Siegel and Sorenson, 1999) is possibly more suggestive of change. In their sample, 41.8% cited "internal consulting" as one of the five activities occupying most of their time. However, only 24.7% included "long-term strategic planning" in this category and the most commonly cited item ("accounting systems and financial control", cited by 61.9%) is clearly associated with the traditional role.

While the uptake of the new role type evidenced by this empirical work is limited, it nevertheless suggests change is occurring, albeit for a minority of respondents. In Burns and Yazdifar's (2001) study 25% of respondents include "generation/creation of value" as one of the "top 10 tasks … vitally important … by the year 2005" and between 20and 30% of the respondents in Siegel and Sorenson's (1999) study cite "internal consulting" and "long-term strategic planning" as occupying more of their time than they did five years previously. Consequently, it is to be expected that the position now is different from that portrayed in these studies, conducted nearly a decade ago, pointing to the need for a contemporary study to assess the extent of movement towards the new role type. Furthermore, these precedent studies can be seen as providing only indicative evidence given their relatively small sample sizes (279 respondents in the case of the study by Burns and Yazdifar, 2001, and 300 in that of Siegel and Sorenson, 1999) and lack of evidence as to representativeness.

On account of these sample sizes, if for no other reason, precedent empirical studies have been constrained in their ability to provide some understanding of diversity in their samples. What distinguishes that minority of respondents who appear to ascribe importance to or are adopting the new role type from those who do not? The simplest conjecture that answers this question, and the one that is tested here, is that the observed diversity of practice results from variation in the strength of the causative and enabling factors, or drivers, of management accountants' role change.

A number of drivers of role change associated with relatively recent economic and technological developments are widely cited: globalisation of markets (and thus increased competition), advances in information and production technologies (reducing time needed to be expended in information processing by accounting specialists and enabling operational staff to undertake tasks themselves that were previously the preserve of accountants), along with operational and management trends towards relationship management, outsourcing and leaner organisational structures and processes (Holtzman, 2004, Burns et al., 1999, Johnson and Kaplan, 1987).

To the extent these drivers represent exogenous changes in the organisation's operating environment, contingency theory, in which the organisation adapts to achieve the best "fit" with its environment, provides a method of linking external and internal change. It has been broadly applied in accounting research (Covaleski et al., 1996) and, significantly here, as a framework for explaining the adoption of new management accounting practices (e.g. Abdel-Kader and Luther, 2008) and roles for management accountants (Byrne and Pierce, 2007). Given that the precise circumstances of each organisation are unique, it has been argued that no single response to a given contingent factor should be expected (Lawrence and Lorsch, 1967) or treated as optimal (Donaldson, 1999). However, over a broadly based sample, there is a justifiable expectation that evidence of an association between a contingent factor and a particular organisational response, in this case management accountant role change, can be found, if such a relationship exists as suggested by the precedent literature.

In this context, varying degrees of adaptive pressure from the processes of globalisation and increasing competition are viewed as factors likely to result in diversity in response. While the degree to which each industry is "globalised", may have more to do with the characteristics of the particular industry than it does with the country in which that industry is based (Hatzichronoglou, 1999), we form separate hypotheses regarding globalisation, treating it as primarily a macro-economic phenomenon, and increased competitive pressure, which may arise from causes other than globalisation (e.g. regulatory change):

H1: Organisations operating within countries with more globalised economies are more likely to attach importance to management accountants performing the new role type than those in other countries, ceteris paribus.

H2: Organisations operating within more competitive sectors are more likely to attach importance to management accountants performing the new role type than those in other sectors, ceteris paribus.

If globalisation and increased competition are viewed as attractive drivers, providing incentives for the management accountant's competencies to be better deployed in more direct support of the organisation's activities, long term trends in the development of cost-efficient information and communications technologies are repulsive drivers, displacing or supplanting more traditional roles. These technologies have reduced the traditional role of the accountant in transaction processing and financial report preparation to standardised procedures (Carruth, 2004) that can be readily concentrated in shared service centres or outsourced from the organisation completely (Forsaith et al., 2003; Boer, 2000) and potentially reduced the demands on accountants by enabling operational staff to monitor performance and produce financial information themselves (Albrecht and Sack, 2001) – the right software can make anyone an "accountant" (Otley, 2008). Thus, there is downward pressure on the numbers of accounting specialists required in an organisation paving the way for some downsizing of the finance function (Ezzamel et al., 1997), but it also enables accountants' expertise to be deployed in roles that deliver greater value to their organisations.

From a historical perspective, the existence of new information and communications technology is a contingent factor but more important in terms of explaining diversity at a given point in time is the capacity to adopt new technology, which is dependent on the organisation's characteristics, in particular the availability of resources for investment in such new technology. The significance of this characteristic in terms of its potential to drive management accounting role change stretches beyond the ability to acquire new technology to the capacity to support retraining and other forms of organisational adaptation.

Resource availability (for investment in new technology and change in management accounting practices) may be represented by financial strength but we suggest that a more convincing proxy measure is the size of the organisation (i.e. an institutional rather than contingent factor), in that a relatively small but profitable enterprise is less likely to have the capacity to invest in change at the level under review here than a larger failing enterprise, which has the incentive and the ability to call on the finance to turn around its fortunes. Larger organisations are more likely to have at their disposal the "slack resources" (Gerard, 2005) needed to implement changes in the finance function, e.g. through additional training, without detriment to continuing activities.

The measure of size also has merit as a proxy for other drivers of management accounting role change in two ways. First, larger organisations are likely to be more complex and exposed to globalisation pressures by operating in a range of markets, and on a global scale so that there is an enhanced incentive to deploy accountants in more strategic roles. Second, such organisations are more likely to be quoted and their operations more transparent to meet the demands of external scrutiny, and so subject to investor pressure for achieving sector benchmarks (DiMaggio and Powell, 1983). Thus, they are more susceptible to the adoption of new practices as a response to actions by other organisations, and it has been envisaged that such mimetic actions can include change in management accounting practices (Granlund and Lukka, 1998a).

Pursuant to these arguments of capacity (resource availability), complexity and transparency as drivers of role change, we advance the hypothesis that:

H3: Larger organisations are more likely to attach importance to management accountants performing the new role type than those in other organisations, ceteris paribus.

Whatever the drivers of change, our final hypothesis is concerned with the rate of any such change. The literature suggests no particular time frame but we seek evidence in this respect by testing the following proposition:

H4: Organisations are more likely to attach importance to management accountants performing the new role type than they did in the past.

Our focus thus far, in common with the bulk of the literature, has been on commercial organisations and this remains at the core of our discourse. However, we draw attention to other organisations in the economy. The public and not-for-profit sectors are possibly not subject to the same pressures for change as the commercial sector, as embodied in hypotheses 1 to 3, but we include these sectors in our investigation to identify matters for further investigation.

In summary, we seek to add to the existing literature by identifying the nature of management accounting role change, its current status and, most importantly, the underlying forces that account for variation in the observed extent of change. In the latter respect, our hypotheses are not mutually exclusive and *H1-3* proceed on the basis that the characteristics of organisation size, country of operation and sector operate as proxies for the strength of the contingency and institutional factors which have been argued to drive change in the management accountant's role.

Data Collection and Analytical Methods

Data Collection and Validation

The data employed here were derived from a survey commissioned by CIMA to review the curriculum for its professional qualification and was conducted over a period of six weeks during June and July

2007. The instrument was substantially similar to one utilised in a survey five years before ("the 2002 survey", see Cooper, 2006) with some additions to improve coverage of subject areas. As in that case, a web-based administration format was adopted but with an email invitation to participate being sent to and received by (i.e. after "bounce-backs") members and employer representatives, in this case with invitations being sent to 43 222 potential respondents.

After eliciting the respondent's personal details and views as to the importance of specified technical topics, respondents were requested to rate 27 specified "activities or issues dealt with by Management Accountants in relation to their importance to the work carried out in your organisation" using a four point Likert scale: 1 = "of critical importance", 2 = "very important", 3 = "of some importance", 4 = "of little or no importance". Responses to this question are used here to indicate to what extent respondents' organisations attach importance to particular roles although, as discussed below, it is necessary to control for the respondent's characteristics if the organisation's position is to be discerned. Responses to the counterpart questions in the 2002 survey, which have not been reported previously, provide the basis for assessing the extent of change over the period between that and the currently reported survey.

In addition to rating the specified items, respondents were asked to indicate "any other activities or issues not covered above but which you feel are at least very important to the work carried out in your organisation". A small minority responded to this request, in most cases using the opportunity merely to emphasise previous responses or referring to particular accounting techniques rather than activities or issues.

To validate responses to the survey overall, a summary of initial results from analysis of the data were despatched to a randomly selected sample of 67 respondents who had indicated a willingness to be contacted with a request for a telephone interview or written comments. Ultimately, seven telephone interviews were conducted and 10 written responses received. These contacts consistently confirmed that the results were reasonable and did not reveal any difficulties with completion of the instrument that would affect the interpretation of the survey results as discussed below.

Analytical Methods

Throughout, the reported rating of the i^{th} activity/issue item (i = 1, ….I, with I=27) by the j^{th} respondent (j = 1….J) is denoted by r_{ij}, taking one of the K alternative values available (k=1, 2, 3, 4).

The relative importance of the activities/issues is assessed by ranking the I items according to their respective means, defined as:

$$\bar{r}_i = \frac{\sum_j r_{ij}}{J}$$

Tracing movement in the relative importance of the activities/issues over time is achieved by comparing the ranking of the items based on $\bar{r}_i$, between the 2002 and 2007 surveys.

Based on the literature we identify certain activities/issues included in the survey most likely to be associated with the new role type but test these propositions using factor analysis. This technique highlights relationships among the activities/issues and is used to determine whether there is some set of activities/issues that can be associated with the new role type, specifically using association with the offered activity/issue of "business partnering" as an indicator of the new role type.[3] This method has

[3] "Business partnering" was used to broadly represent the new role type in the survey as it is used in this way in CIMA's literature, and thus is the term most likely to be recognised as such by its members.

previously been employed in an accounting context by Mouritsen (1996), who used factor analysis to group 18 different accounting tasks into five overarching "clusters" of activities. The sample for this analysis is restricted to respondents working within commercial entities (i.e. primarily excluding the public sector) so as to avoid the analysis being contaminated by the distinctive characteristics

Variations in importance of activities/issues among explanatory variables are identified using ordered logistic regressions (see, for example, Agresti, 2002 and Powers and Xie, 2000, for general features and Cooper, 2006, for an application in the accounting education literature). The regression models for each item, i, are based on a logistic cumulative density function for the probability of individual j choosing an importance rating, r_{ij}, given K alternatives (with k=1, …, K-1) and a vector of the individual's characteristics ($\mathbf{x}_j$), such that (suppressing the notation i):

$$p(r_j \le k|\mathbf{x}_j) = \frac{1}{1+e^{-(\alpha_k+\boldsymbol{\beta}'\mathbf{x}_j)}}$$

where α_k are constants and $\boldsymbol{\beta}$ the vector of coefficients on $\mathbf{x}_j$. Thus, taking the logarithm of the odds ratio (the logit or $\log[p(r_j \le k \mid \mathbf{x}_j]$) as the dependent variable yields a linear regression model of the form:

$$\ln\left(\frac{p(r_j \le k|\mathbf{x}_j)}{p(r_j > k|\mathbf{x}_j)}\right) = \log\left[p(r_j \le k|\mathbf{x}_j)\right] = \alpha_k + \boldsymbol{\beta}'\mathbf{x}_j$$

so that, given the inverse scale of the ratings, a positive $\boldsymbol{\beta}$ coefficient for a continuous variable (a categorical characteristic group) indicate that higher values (its members) tend to be associated with higher ratings of the activity/issue (than do members of the reference group).

In order to test the hypotheses *H1-3*, explanatory variables were selected as follows.

The potential impact of globalisation is assessed by assigning to each respondent the globalisation score (*GLOBAL SCORE*) of the country in which they mainly work according to the scoring system of Lockwood and Redoano (2005) which combines data on a country's trade, foreign direct investment, and portfolio investment and income to calculate how relatively globalised is the country's economy. For example, using countries represented in the sample, Singapore is accorded a score of 0.432 (and is ranked 3rd most globalised of all the countries), the UK scored 0.162 (ranked 34th) and Australia scored 0.109 (ranked 108th). *H1* is supported if a higher *GLOBAL SCORE* predicts greater importance attached to activities/issues associated with the new role type.

Given the complexity of the factors that influence sectoral competition (see, for example, Porter, 1980), a common objective measure is difficult to identify but we select industry concentration, one of the contributors to degree of rivalry within Porter's Five Forces, as a convenient proxy, which can be operationalised with the information on sector in which the respondent's organisation operates (*SECTOR*) available from the survey. Thus, commercial sectors other than that of private practice and consulting (*PPC)*, which has unique features, are aggregated into two groups: *HIGH CONC* including *SECTOR* groups which are commonly characterised by high concentration (see, as regards the UK, ONS, 2006) because of capital intensity, regulatory constraints etc. and *LOW CONC* to encompass other commercial firms, as shown in Table 1. If the latter group, expected to represent more competitive sectors, tends to attribute more importance to activities/issues associated with the new role type, this would support *H2*. Formal hypotheses are not advanced in respect of organisations in other sectors (the public, education and not-for-profit sectors), which are included on an exploratory basis, or in respect of *PPC*. However, in the latter case, we note that the role traditionally adopted by external consultants resonates with that expected of the new role type (in the sense of the management accountant becoming an "internal business consultant", Burns and Vaivio, 2001).

Table 1
Sample Characteristics

	Frequency	%	*GLOBAL SCORE*		
			Min.	Max.	Mean (SE)
Countries more globalised than UK	718	15.5	0.163	0.968	0.322 (.003)
UK	2 987	64.5	0.162	0.162	0.162 (.000)
Countries less globalised than UK	817	17.6	0.069	0.161	0.130 (.001)
Data/Globalisation score missing	109	2.4			
Total	4 631	100.0	0.069	0.968	0.182 (.001)
SECTOR					
Financial Services (*FIN*)	658	14.2			
Engineering, Construction, Extractive Industries, Utilities, Transport (*EUT*)	611	13.2			
IT and Telecommunications (*ITT*)	360	7.8			
*HIGH CONC**	1629	33.2			
Manufacturing (*MFG*)	1 062	22.9			
Retail, Trade, Distribution (*RTD*)	516	11.1			
Non-financial services (*SER*)	374	8.1			
LOW CONC	1952	42.1			
Private Practice/Consulting (*PPC*)	286	6.2			
Education/Training (*EDU*)	160	3.5			
Not-for-profit organisations (*NFP*)	101	2.2			
Public Sector Services (*PUB*)	486	10.5			
Data Missing	17	0.3			
Total	4 631	100.0			
SIZE (number of employees in respondent's country)					
1-100	1 133	24.5			
101-500	1 021	22.0			
501-2,500	943	20.4			
2,501-10,000	824	17.8			
10,001+*	635	13.7			
Data Missing	75	1.6			
Total	4 631	100.0			
FUNCTION					
Accounting & Finance Function (*A&F*)*	3 066	66.2			
Other Function (*Non-A&F*)	1 565	33.8			
Total	4 631	100.0			
ROLE					
Director/Head of Function*	1 396	30.2			
Manager/Controller	1 746	37.7			
Accountant/Operative (Non-Manager)	1 451	31.3			
Other	38	0.8			
Total	4 631	100.0			

* Reference category in regression analyses (see Tables 5 and 6).

Finally, *H3* is tested by including as an explanatory variable the size of the respondent's organisation in their country of operation measured by number of employees (*SIZE*), which was included in the personal information supplied by respondents using categories specified in the survey questionnaire. This hypothesis is supported to the extent that respondents in larger organisations tend to attach greater importance to activities/issues associated with the new role type.

In addition to the explanatory variables required to test our hypotheses, variables to control for the potential effects of personal characteristics are included in the regressions. While the questionnaire required the respondent to indicate the importance of activities/issues to the work carried out within their organisations, i.e. not necessarily by the respondent themselves, it is possible that personal experience and circumstances may influence the view expressed. For example, without establishing formal hypotheses, those working outside the finance function may be more business-oriented and those in more senior positions may have a broader perspective on the relative contribution of accountants' activities, so that in both cases there might be a propensity to rate as more important activities/issues associated with the new role type. Accordingly, the respondent's functional attachment as within or outside the accounting and finance function (*FUNCTION*) and their level of seniority (*LEVEL*) are included in regressions. Assignment of respondents to categories within these variables is based on categorical responses to the questions "in which department or function do you mainly work?" (with finance/accounting as one response alternative along with nine others) and "which of the following best describes your position?" (with 12 response alternatives available, e.g. finance director) respectively.

A final consideration in the analysis arises from the potential for international diversity in the sample to introduce influences on the reported rating other than that expected to be associated with level of globalisation and other explanatory variables. A number of studies suggest that differing cultural "response styles" may exist (van Herk et al., 2004), meaning that respondents across countries may not interpret or use the survey's Likert scale in the same way (see also, Roster et al., 2006; Johnson et al., 2005; Clarke, 2001; Stening and Everett, 1984). For example, results of a recent cross-cultural study suggested that Asian respondents were more likely to use moderate scale ratings, whilst Australians tended to use extreme values (Dolnicar and Grun, 2007). These studies suggest that when making Likert scale choices, respondents might be influenced by certain cultural factors which are not related to the content of the questionnaire itself but which could "contaminate" cross-national data (Diamantopoulos et al., 2006). For example, for cultural reasons an individual may introduce a systematic bias such that the "true" rating (t_{ij}) is transformed to the reported rating by some constant (c_j):

$$r_{ij} = t_{ij} + c_j$$

where the value of c_j represents the extent of the tendency for the respondent to acquiesce (c_j<0) or under-report importance (c_j>0).

As discussed in the following section, we find evidence in our sample of cross-cultural bias in the reported ratings in terms of a significant difference between the mean scores of the UK and other respondents, as would result from a consistent tendency to under/over-report of the above form. While this type of bias would not affect the ordering of items by their reported means, the factor and regression analyses could be biased. Comparison of factor analyses for the UK and non-UK sub-samples respectively reveals differences in loadings but the factors identified remain the same. However, this bias necessitates some recognition in the regression analyses.

Various methods to eliminate or control for such bias are represented in the empirical literature but without consensus as to the most appropriate (Fischer, 2004). Given the limited range of the Likert scale employed in this study and the number of items which the individual had to rate, we include as a control in the regressions the respondent's rounded mean rating across all 27 items:

$$\tilde{r}_j = \frac{\sum_i r_{ij}}{I}$$

Thus, an individual's tendency to report a higher or lower rating than others in the sample is recognised when assessing their rating of any particular item.[4]

Including the three control variables, therefore, the regression models applied in the analysis of the reported ratings for each of the activity/issue items were of the form:

$$\log\left[p(r_j \le k \left| \mathbf{x}_j \right.)\right] = \alpha_k + \beta_1 GLOBALSCORE + \beta_2 SECTOR + \beta_3 SIZE + \beta_4 FUNCTION + \beta_5 LEVEL + \beta_6 \tilde{r}_j$$

The sign of the coefficient on $\tilde{r}_j$ (β_6) is predicted to be negative given that the reference case is taken as "little or no importance" ($\tilde{r}_j$ =4). For example, if the respondent's mean rating is 2 then they are more likely to rate any given item as more important than those with a mean of 4.

Results

The survey attracted 4 649 responses but after deleting three duplications and 15 substantially incomplete responses the usable dataset comprises 4 631 responses, a response rate of 10.7%. Although this is a relatively low rate, the absolute number of responses is substantial and the sample is broadly representative of the population of CIMA members (according to CIMA) in terms of the sample characteristics shown in Table 1. Furthermore, the distribution of respondents across the variable categories shown in this table constitutes a reasonable spread across categories, with relatively substantial numbers (>100) in each category. However, the *EDU* and *NFP* categories of *SECTOR* are combined in the regression analyses to constitute a more sizeable class with common characteristics.

Frequencies of the importance ratings by item are given in Table 2, along with indicative means and ranks, consecutively assigned from item 1 according to whether the mean rating is significantly different (at $p<0.01$) from that of the top rated item in each rank according to the Wilcoxon Signed Ranks Test. Items highlighted in bold type in this table are those expected to be most closely associated with the new role type on the basis of the literature, being those connected with management, strategic/business focus or with contemporary/"emerging" issues (ethics, e-commerce, environmental and social issues). Although "business partnering" itself is one of the specified activities a full interpretation of these results requires an identification of the full range of activities/issues expected to be associated with this role. Overall, the ratings attest to the high perceived importance of the majority of items (at least 50% of the sample rate each of the top 19 items as at least "very important") but the ranking procedure reveals a clear ordering among the items, indicating discrimination on the part of respondents. Within this scale, the items expected to be associated with the new role type make a decidedly mixed showing. Six of the items appear in the top seven ranks but the remaining five appear very much towards the bottom. This may be partly due to the relatively novelty and an unresolved role for accountants in dealing with them (e.g. environmental issues) but it is notable that this group includes "business partnering" itself, with a rank of 13 out of 16.

[4] For completeness, we also tested an "ipsatization" procedure (Fischer, 2004) in which the reported ratings were modified by deducting the individual's mean score across all items. However, this did not substantially improve the explanatory power of the models and introduced an artificial range of values for the dependent variable (from -3 to +3 inclusive).

Table 2
Activities/issues ordered by mean importance rating and sorted by rank

No.	Activity/Issue (reference in questionnaire)[a]	Importance % responses by category[b]				Mean, $\bar{r}_i$	Rank
		1	2	3	4		
1	Preparation and interpretation of management accounting information (a)	52.6	39.8	6.5	1.2	1.56	1
2	Communication and presentation of financial information (j)	41.5	44.9	11.4	2.2	1.74	2
3	**Leadership (w)**	36.1	45.4	15.1	3.4	1.86	
4	Development and implementation of management accounting systems (b)	32.6	49.1	15.6	2.6	1.88	3
5	**Managing staff (e)**	32.3	47.9	16.2	3.7	1.91	4
6	**Management of projects (f)**	27.4	49.2	19.7	3.6	2.00	5
7	Maintenance of financial systems (l)	23.1	50.9	21.4	4.6	2.07	
8	**Strategic financial planning (r)**	26.5	45.3	21.6	6.6	2.08	6
9	**Provision of business advice (s)**	29.1	39.5	22.1	9.3	2.12	
10	**Business ethics (y)**	25.6	41.8	25.3	7.3	2.14	7
11	Preparation of statutory accounts (g)	26.5	37.1	26.9	9.5	2.19	
12	Implementation of IT systems (d)	19.8	44.7	29.2	6.3	2.22	8
13	Provision of accounting advice (v)	20.4	45.0	25.4	9.3	2.24	
14	Capital investment appraisal (i)	22.4	39.2	28.6	9.8	2.26	9
15	Corporate governance (u)	22.1	38.4	29.2	10.3	2.28	
16	Management of IT systems (o)	15.1	42.1	32.4	10.4	2.38	10
17	Treasury management (h)	19.7	34.0	31.3	14.9	2.41	
18	Analysis and application of national accounting standards (t)	15.5	38.9	33.5	12.1	2.42	11
19	**Value-based management (x)**	13.7	36.3	34.6	15.4	2.52	
20	Analysis and application of International Financial Reporting Standards (c)	15.7	33.5	33.4	17.4	2.53	12
21	Internal audit (m)	13.3	35.3	36.6	14.8	2.53	
22	**Business partnering (aa)**	15.0	28.8	32.7	23.5	2.65	13
23	**Use of e-commerce tools (n)**	8.8	27.0	42.4	21.8	2.77	14
24	Accounting in a multinational context (q)	16.3	24.2	23.3	36.2	2.79	
25	**Green (environmental) issues (z)**	6.8	24.1	43.7	25.4	2.88	15
26	Implementation of the Sarbanes Oxley Act (k)	15.2	18.4	24.2	42.1	2.93	
27	**Social accounting issues (p)**	3.4	16.3	42.9	37.4	3.14	16

[a] Items highlighted in bold are those expected to be associated with the new role type.
[b] 1 = "of critical importance", 2 = "very important", 3 = "of some importance", 4 = "of little or no importance"

Interpretation thus far has been based on our expectations of the activities/issues associated with the new role type and these are tested through factor analysis a means of seeking empirical evidence of such association. Table 3 provides the results of this analysis in terms of the loadings of items after Varimax rotation on six factors with an eigenvalue exceeding 1, accounting for just over 60% of the variance in responses. By reference to items with a loading of at least 45%, a level convenient in this case for highlighting the main associations, the factors represent distinct functional areas or role types, as shown in Table 3. This categorisation is highly intuitively appealing in the sense that there is a strong internal consistency among the items associated with each factor, as represented in the informal tiles assigned to ach. Furthermore, it is significant that the most highly ranked activities are associated with the (traditional) "Management Accounting" role, which thus remains at the core of the management accountant's role.

Table 3
Item Loadings on Identified Factors[a]

Activity/Issue (reference in questionnaire)[b]	Factor (Variance explained, %)					
	1 "Advisory & strategic" (32.31)	2 " Financial" (7.74)	3 "IT" (6.72)	4 "International & Audit" (5.86)	5 " Management Accounting" (4.27)	6 "Management & Leadership" (3.91)
Preparation/interpretation of management accounting information (a)	.076	.070	.100	.079	**.820**	.026
Communication/presentation of financial information (j)	.275	.207	-.035	.106	**.580**	.222
Leadership (w)	**.502**	.070	.088	.031	.168	**.614**
Development/implementation of management accounting systems (b)	.085	.072	.395	.081	**.714**	.108
Managing staff (e)	.158	.102	.242	.065	.165	**.723**
Management of projects (f)	.245	.038	.266	.194	.021	**.666**
Maintenance of financial systems (l)	.016	.326	**.510**	.211	.363	.135
Strategic financial planning (r)	**.511**	.215	.074	.218	.210	.302
Provision of business advice (s)	**.646**	-.018	-.108	-.031	.325	.260
Business ethics (y)	**.577**	.217	.157	.251	.030	.209
Preparation of statutory accounts (g)	-.026	**.813**	.160	.074	.170	-.021
Implementation of IT systems (d)	.009	.125	**.709**	.079	.163	.365
Provision of accounting advice (v)	**.532**	.250	-.040	.004	.440	.057
Capital investment appraisal (i)	**.469**	.353	.047	.093	.130	.257
Corporate governance (u)	.424	**.465**	.077	.424	-.015	.165
Management of IT systems (o)	.128	.155	**.781**	.049	.095	.289
Treasury management (h)	.176	**.746**	.193	-.016	-.002	.176
Analysis/application of national accounting standards (t)	.222	**.627**	.091	.345	.206	-.002
Value based management (x)	**.666**	.049	.201	.112	.147	.247
Analysis/application of IFRS (c)	.101	**.506**	.137	**.503**	.169	.014
Internal Audit (m)	.170	.356	.323	**.509**	.085	.090
Business partnering (aa)	**.661**	-.074	.113	.247	.010	.173
Use of e-commerce tools (n)	.337	.112	**.632**	.130	.036	.041
Accounting in a multi-national context (q)	.181	.070	.063	**.746**	.125	.107
Green issues(z)	**.636**	.166	.383	.157	-.024	-.145
Implementation of SOX (k)	.163	.060	.084	**.803**	.019	.072
Social accounting issues (p)	**.568**	.215	**.461**	.253	-.025	-.180

[a] Loadings of at least 45% are highlighted to indicate main associations with factors.
[b] Items are ordered as in Table 2.

It is also clear from the factor analysis that our expectations as to the activities/issues associated with the new role type are not entirely borne out. The "Advisory & Strategic" factor includes most of these activities/issues but the management of staff and projects are identifiable with a separate factor and to some extent "leadership" is shared between these factors, and e-commerce is more identifiable with the "IT" factor. In addition, two other items (provision of accounting advice and investment appraisal) not expected to be associated with the new role type load on the "Advisory & Strategic" factor. The inclusion of these items can be rationalised on the basis that they may both have an advisory/prospective nature in practice, and investment appraisal as having a strong strategic element, but it is difficult to see them as being novel activities for the management accountant. This suggests that the new role type is perhaps better characterised by its focus on the future than by reference to the novelty of the activities of which it is comprised. In any event, the characterisation of the new role type from the factor analysis excludes management and, to some extent, leadership from its activities thus reducing the relative importance of its constituents as shown in Table 2.

Although the activities associated with the new role type appear to be of moderate relative importance currently, for the sample as a whole, the question remains as to whether they have been increasing in relative importance? Evidence in this regard is provided by comparison of the ranking of item importance in the current survey with that from the 2002 survey at the quartile level (Table 4) – a more detailed (one-to-one) comparison disguises broad trends and is hampered by the inclusion of four additional items in the 2007 survey.

Table 4
Change in Activity/Issue Importance between the 2002 and 2007 Surveys

No	Activity/Issue (reference in questionnaire)[a]	2007		2002	Expected
		Rank	Quartile	Quartile	Change in 2002[b]
1	Preparation and interpretation of management accounting information (a)	1	1	1	3.0
2	Communication and presentation of financial information (j)	2		1	6.9
3	Leadership (w)	3		1	9.1
4	Development and implementation of management accounting systems (b)	3		1	3.6
5	Managing staff (e)	4		1	5.3
6	Management of projects (f)	5		2	6.2
7	Maintenance of financial systems (l)	6	2	2	(1.5)
8	Strategic financial planning (r)	6		2	9.1
9	Provision of business advice (s)	6		2	7.2
10	Business ethics (y)	7		2	24.4
11	Preparation of statutory accounts (g)	8		3	(4.1)
12	Implementation of IT systems (d)	8		2	6.5
13	Provision of accounting advice (v)	8		2	(0.5)
14	Capital investment appraisal (i)	9	3	2	3.3
15	Corporate governance (u)	9		3	24.3
16	Management of IT systems (o)	10		3	7.8
17	Treasury management (h)	10		3	2.0
18	Analysis and application of national accounting standards (t)	11			N/A
19	Value-based management (x)	12		3	8.0
20	Analysis and application of International Financial Reporting Standards (c)	12			N/A
21	Internal audit (m)	12		4	4.3
22	Business partnering (aa)	13	4		N/A
23	Use of e-commerce tools (n)	14		4	22.5
24	Accounting in a multinational context (q)	14		4	3.0
25	Green (environmental) issues (z)	15		4	25.7
26	Implementation of the Sarbanes Oxley Act (k)	15			N/A
27	Social accounting issues (p)	16		4	6.7

[a] Items are ordered as in Table 2.
[b] [(Number citing item as likely to "increase in importance in the next 5-10 years" - Number citing item as likely to "decrease in importance in the next 5-10 years")/Total sample] x 100%. The total sample in the 2002 survey was 1 620 respondents.

At this level of comparison, there is generally only movement among the items at the margins. Interestingly, the most radical change is in the elevation of "preparation of statutory accounts", an activity completely divorced from the concept of the new role type, from the 3rd to the 2nd quartile; otherwise, items associated with the new role type tend to remain in the 3rd and 4th quartiles. Thus, the comparison of ratings at the two points in time fails to indicate any recognisable change in the relative importance of items associated with the new role type. Furthermore, expectations of the shift in relative importance elicited in the 2002 survey are not borne out in the results of the 2007 survey. For example, the importance of the "preparation of statutory accounts" was expected to fall while that of "e-business technologies" was expected to rise substantially. Instead, the former has risen in relative importance

while the latter has not moved. Taken together, the evidence does not support any appreciable movement in the relative importance of the activities/issues and *H4* cannot be accepted.

Testing of the other hypotheses requires assessment of differences in ratings arising from the explanatory and control variables described above.

To assess potential cross-cultural bias in the reported ratings, the mean rating across all items was compared between UK respondents (the largest country group in the sample, with a grand mean reported rating of 2.35) and other respondents (grand mean 2.22) using both one-way ANOVA and the non-parametric Mann-Whitney test. In both cases, the difference between the sub-samples was found to be significant at less than the 1% level. Similarly, the UK respondent group had a significantly higher grand mean than either of the non-UK groups shown in Table 1 (less and more globalised respectively), indicating that the difference arises from some factor(s) in international comparison other than the level of globalisation. Although this finding results from comparing the UK to 98 other countries in aggregate in the sample, it is consistent with that of van Herk et al. (2004) who found that compared to five other European countries, UK respondents displayed the lowest levels of "acquiescence" (the tendency to agree rather than disagree – to be positive rather than negative).

Regressions were run including all the explanatory variables simultaneously but the results are presented over two tables dealing respectively with the *SECTOR* and *GLOBAL SCORE* variables (Table 5) and the *SIZE*, *FUNCTION* and *LEVEL* variables (Table 6). In each case the items are grouped by the factor with which they are most closely associated in the factor analysis (Table 3) to highlight similarities within the role types that the factors represent. For the sake of conciseness, the values of constants (α_k) and of the β_6 coefficients are not reported, it is merely necessary to note that their signs are in accordance with expectation.

From the results in Table 5, the extent of a country's economic globalisation bears little consistent relationship to the importance ratings except in the case of items grouped in the "International & Audit" factor (4) where the evidence indicates that respondents from organisations in more globalised economies tend to place more importance on these items. Consistent with this result, they also tend to place more importance on the analysis and application of IFRS (in factor 2). More to the point here, if a country's economic globalisation were a contingent factor producing pressure to move towards the new role type then the coefficients on *GLOB SCORE* would be positive for the items grouped under factor 1 ("Advisory & Strategic") and negative for items associated with more traditional roles (grouped in factors 2 and 5). The positive coefficients on the items "Value-based management" and, to some extent, "business partnering", both within factor 1, provide evidence of such pressure, as does the negative coefficient on "Preparation/interpretation of management accounting information" (in factor 5). However, otherwise, notably in the lack of a significant relationship on the "provision of business advice" item, there is no firm evidence of an association between globalisation and the adoption of the new role type. Given that, the value of the *GLOB SCORE* variable has no intrinsic meaning (it is effectively a means of ranking) we also ran regressions in which it was substituted by globalisation rank, e.g. as shown in Table 1, or in which organisations were categorised using the interaction of globalisation rank with the *SECTOR* variable but neither of these approaches produced more meaningful results for the globalisation variable. On the basis of this evidence, *H1* cannot be accepted without qualification, although there is some weak support for the hypothesis.

Table 5
Regressions: Model Statistics and Coefficients on Sector and Globalisation Level Variables

Factor	Activity/Issue (reference in questionnaire)	Model		*SECTOR*[b]					*GLOBAL SCORE*
		χ^{2} [a]	Nagelkerke R^2	*LOW CONC* Mean	*HIGH CONC*	*PPC*	*EDU & NFP*	*PUB*	
1	Strategic financial planning (r)	1 680.75	.352	2.14	.147**	.184	.597***	.224**	.340
	Provision of business advice (s)	1 152.31	.252	2.15	-.025	1.768***	-.263**	-.237**	-.567
	Business ethics (y)	1 666.89	.346	2.18	.144**	.346**	-.008	-.054	-.236
	Provision of accounting advice (v)	1 240.67	.270	2.29	-.025	1.084***	.343**	.501***	-.558
	Capital investment appraisal (i)	1 433.34	.304	2.23	-.228***	-.090	-.568***	-.291**	.175
	Value based management (x)	1 671.41	.345	2.52	-.104	.106	-.176	.021	1.452***
	Business partnering (aa)	1 406.17	.296	2.72	.228***	.682***	-.144	-.126	.764*
	Green issues (z)	1 383.55	.298	2.86	-.289***	-.470***	-.041	-.021	-.955**
	Social accounting issues (p)	1 680.95	.358	3.19	-.176**	-.274*	.648***	.546***	.322
2	Preparation. of statutory accounts (g)	1 021.84	.226	2.26	.267***	.265**	.572***	.634***	.224
	Corporate governance (u)	2 069.08	.409	2.43	.451***	.223	.896***	1.114***	1.472***
	Treasury management (h)	1 213.04	.261	2.46	.292***	-.077	.129	.166*	-.115
	Analysis/application of national accounting standards (t)	1 545.62	.325	2.49	.247***	.324**	.319***	.253*	.541
	Analysis/application of IFRS (c)	1 462.40	.307	2.56	.387***	-.185	-.676***	-.554***	1.473***
3	Maintenance of financial systems (l)	1 497.82	.323	2.06	-.094	-.209	.133	.133	-.677
	Implementation of IT systems (d)	1 146.01	.254	2.22	-.019	-.188	-.020	-.035	-.223
	Management of IT systems (o)	1 399.78	.299	2.38	-.084	-.078	.110	.111	-.676*
	Use of e-commerce tools (n)	1 343.75	.289	2.78	-.011	-.040	-.280**	-.288***	.733*
4	Internal audit (m)	1 709.36	.351	2.58	.087	-.547***	.065	.547***	1.218***
	Accounting in a multi-national context (q)	1 650.16	.339	2.69	.089	-.489***	-1.624***	-2.484***	2.353***
	Implementation of SOX (k)	1 440.74	.306	2.91	.201***	-.110	-.956***	-1.487***	1.530***
5	Preparation/interpretation of management accounting information (a)	788.08	.196	1.50	-.271***	-.237*	.046	-.268**	-1.602**
	Communication/presentation of financial information (j)	1 046.02	.243	1.75	.001	.561***	.031	.146	-.241
	Development/implementation of management accounting systems (b)	1 083.03	.248	1.85	-.241***	-.023	.329**	.030	-.159
6	Leadership (w)	1 571.65	.338	1.86	-.159**	.490***	.059	.231**	-.582
	Managing staff (e)	1 198.21	.268	1.88	-.196***	-.114	.281**	.316***	-.142
	Management of projects (f)	1 241.94	.276	2.08	.324***	.416***	.202	.360***	.183

*p<0.10, ** p<0.05, *** p<0.01

[a] All χ^{2} statistics are significant at p<0.001.

[b] A positive (negative) coefficient indicates that the topic is considered more (less) important by members of the category than members of the reference category (LOW CONC).

Table 6
Regressions: Coefficients on Size of Organisation, Respondent Function and Role Level Variables

Factor	Activity/Issue (reference in questionnaire)	*SIZE*[a]					*FUNCTION*[a]		*LEVEL*[a]		
		10 000+ Mean	2 501–10 000	501-2 500	101-500	1-100	*A&F* Mean	*Non-A&F*	Director Mean	Manager	Non-Manager
1	Strategic financial planning (r)	1.91	-.166	-.173	-.309***	-.441***	2.13	.340***	2.02	-.225***	-.366***
	Provision of business advice (s)	1.95	-.238**	-.298***	-.505***	-.325***	2.17	.187***	1.99	-.403***	-.562***
	Business ethics (y)	2.07	.137	.042	-.057	.131	2.17	.134**	2.05	-.291***	-.391***
	Provision of accounting advice (v)	2.10	-.177*	-.167	-.357**	-.164	2.20	-.349***	2.19	-.219***	-.230***
	Capital investment appraisal (i)	2.03	-.066	-.292***	-.558***	-.733***	2.31	.312***	2.23	-.184**	-.204***
	Value based management (x)	2.31	-.110	-.288***	-.440***	-.409***	2.56	.266***	2.45	-.238***	-.322***
	Business partnering (aa)	2.28	-.369***	-.576***	-.858***	-.863***	2.72	.333***	2.59	-.204***	-.416***
	Green issues (z)	2.68	-.057	-.233**	-.264**	-.282***	2.91	.276***	2.93	.096	.174**
	Social accounting issues (p)	2.93	-.191*	-.307***	-.386***	-.301***	3.18	.252***	3.24	.313***	.505***
2	Preparation. of statutory accounts (g)	2.28	.063	.388***	.581***	.783***	2.10	-.612***	2.18	-.004	.056
	Corporate governance (u)	2.04	-.128	-.248**	-.409***	-.511***	2.33	.348***	2.23	-.214***	-.290***
	Treasury management (h)	2.45	.062	.222**	.502***	.588***	2.41	-.063	2.30	-.181**	-.378***
	Analysis/application of national accounting standards (t)	2.28	-.236**	.031	-.020	-.099	2.39	-.311***	2.47	.081	.158**
	Analysis/application of IFRS (c)	2.36	-.160	.027	-.103	-.344***	2.51	-.165***	2.64	.244***	.494***
3	Maintenance of financial systems (l)	2.08	.051	.194*	.425***	.513***	2.00	-.579***	2.07	.054	.141*
	Implementation of IT systems (d)	2.18	.079	.021	.199*	.236**	2.22	.006	2.20	.001	.041
	Management of IT systems (o)	2.32	.050	-.026	.189*	.299***	2.39	.047	2.34	-.136*	-.035
	Use of e-commerce tools (n)	2.66	-.018	-.192*	-.045	.135	2.81	.237***	2.79	-.019	.209***
4	Internal audit (m)	2.28	-.220**	-.103	-.201*	-.663***	2.53	.024	2.65	.348***	.377***
	Accounting in a multi-national context (q)	2.62	-.138	-.080	-.294***	-.651***	2.83	.194***	2.90	.196***	.423***
	Implementation of SOX (k)	2.58	-.166	-.382***	-.668***	-1.082***	2.97	.211***	3.10	.271***	.463***
5	Preparation/interpretation of management accounting information (a)	1.56	.084	.165	.088	.029	1.48	-.811***	1.55	.023	-.114
	Communication/presentation of financial information (j)	1.63	-.150	-.196*	-.299***	-.371***	1.69	-.546***	1.72	-.157**	-.228***
	Development/implementation of management accounting systems (b)	1.88	.083	.164	.177*	.235**	1.82	-.536***	1.87	-.016	.047
6	Leadership (w)	1.72	-.208*	-.447***	-.348***	-.355***	1.88	.148**	1.69	-.498***	-1.010***
	Managing staff (e)	1.83	.030	-.125	.023	-.195*	1.89	-.188***	1.81	-.119	-.792***
	Management of projects (f)	1.81	.032	-.230**	-.319***	-.508***	2.05	.433***	1.98	-.106	-.177**

*p<0.10, ** p<0.05, *** p<0.01

[a] A positive (negative) coefficient indicates that the topic is considered more (less) important by members of the category than members of the reference category, respectively: 10 000+ Employees, the Accounting & Finance (A&F) Function, Director/Head of Function (Director).

The sectoral variable evidences greater variation as a predictor of activity/issue importance than the globalisation variable but, again, lacks consistency in its relationships, and , if anything, provides evidence contrary to expectation of an association between an assumed driver of change (in this case the degree of competition) and the importance of the new role type. Respondents in *HIGH CONC* organisations (expected to be in less competitive sectors) exhibit some tendency to rate traditional management accounting items (factor 5) less highly and the "Advisory & Strategic" (factor 1) items more highly than other respondents. Furthermore, they rate items in the "Financial" items (factor 2) consistently more highly, indicating a strong attachment to this more traditional role. Consequently, *H2* cannot be accepted on this evidence. Nevertheless, we note that some large part of the variation associated with this variable may be attributed to the characteristics of the particular sector rather than any 'contingency type' response to the drivers of change. For example, in separate analyses we find that the financial sector component in the *HIGH CONC* group understandably places particular importance on items in the "Financial" factor (2). Similarly, "Green issues" tend to be significantly less important for sectors outside manufacturing.

As regards the other sectors included on an exploratory basis, respondents in *PPC* organisations tend to conform to the expectation that they would place more importance on items associated with the new role type (factors 1 and 6), even in relation to the assumed highly competitive *LOW CONC* group. For the public sector, *PUB*, the results echo the notion that the characteristics of the particular sector rather than the drivers of change are the more dominant influences on the importance of accountants' activities.

Thus, respondents in this sector place more or the same importance on many activities associated with the new role type ("Advisory & Strategic") than do those in the assumed highly competitive (*LOW CONC*) group despite the fact that the services provided by the public sector are not subject to the same forces of globalisation and competition that commercial organisations are. There are apparently other driving forces not captured by this analysis which underlie the high importance attached to the new role type.

Turning to the variables dealt with in Table 6, organisation size is seen to play a significant role in predicting the importance of activities/issues and with consistent effects, i.e. where there is a significant difference importance tends to strictly increase or decrease across the size categories. Most notable in this respect is that "Business partnering" and other items associated with the new role type (i.e. "Advisory & Strategic", factor 1) become less important, the coefficient becomes more negative, as the size of the organisation diminishes. Conversely, items associated with more traditional roles, financial and management accounting, tend to increase in importance as size diminishes. Overall, therefore, the evidence supports acceptance of *H3*.

The significance of coefficients on the *FUNCTION* and *LEVEL* variables (Table 6) justify their inclusion as control variables. With the exception of "provision of accounting advice" and "Managing staff", items associated with the "Advisory & Strategic" and "Management and Leadership" factors are generally more important to those operating outside the finance function, indicating that this group is more concerned with broader, business--oriented roles. Similarly, the more junior the respondent's role the less importance is attached to items associated with these factors, suggesting that more importance is attached to the new role type as the individual progresses to more senior levels.

Discussion and Conclusions

We set out to identify the nature of management accounting role change, its current status and the underlying forces that account for variation in the observed extent of change based on theoretical predictions, exploiting data on the perceived importance of various activities/issues collected on behalf of CIMA for development of its professional qualification.

The factor analysis of the importance ratings revealed six internally consistent role types, one of which, "Advisory & Strategic", encompasses many activities/issues associated with the more business-oriented new role type and serves as a characterisation of this role in terms of specific activities/issues in which management

accountants are involved. The nature of these items was largely consistent with the ways in which the new role type has been previously described, although management activities, which have also been suggested to mark out the new role type, constituted a separate factor along with leadership, which was nevertheless associated also with the new role type.

With this characterisation in mind, the aggregate importance ratings provide mixed evidence of the shift in management accountants' roles predicted on the basis of earlier empirical studies (Burns and Yazdifar, 2001; Siegel and Sorenson, 1999) or consulting industry commentators (e.g. IBM, 2005). Leadership, strategic financial planning and providing business advice were strongly rated but value-based management and "business partnering" (a salient totem of the new role type) appeared much lower in the ranking. Furthermore, there was no evidence of any major change in the ordering of importance when compared to results from a similar survey conducted five years previously. By contrast, the results highlight the continuing significance of traditional roles associated with management accounting, such as the preparation, interpretation and communication of management accounting information. Therefore, at this aggregate level, the picture emerges of a situation in which certain elements of the new role type are seen as highly important but supplementary to, rather than substituting, traditional roles. While other elements of the new role type are seen as important but still do not dominate activities/issues associated with other types of role, such as in financial reporting.

The observed separation of elements in the new role type in terms of their relative importance suggests an evolutionary process, in which there are differential rates at which activities become increasingly important in the accountant's role, rather than a revolutionary change, in which the "typical" management accountant's role transforms in a step-change. What might account for such differential rates of uptake is a question for future research but we suggest that this may result from the magnitude of change required. For example, the transition from interpreting information to providing business advice is probably a much smaller step than from providing business advice to "business partnering", so more time will be needed before this latter change is widely adopted. How much time is currently a matter for speculation. Certainly from the evidence here, five years have not witnessed any substantial change but this is relatively short in the context of the period over which the underlying drivers of change operate. For example, IFAC (1998) considers the evolution in management accountants' roles over a period of over half a century.

A further consideration in the understanding of the current position, which leads on to the final area of our study, is that the aggregate results disguise diversity resulting from variation in the strength of driving forces, so that the extent of change in management accountants' roles differs among organisations and, as we find, types of personnel.

Applying contingency and institutional theory, such variation was expected to derive from the relative force on organisations of external causative factors, particularly economic globalisation, competition and mimetic pressure, and enabling factors, the ability to deploy resources in effecting change. However, while significant variation in the importance ascribed to the various activities and roles was indeed apparent, the proxy measures of globalisation and competitiveness were not found to be good predictors of the uptake of the new role type but organisational size proved to be a highly effective in this respect.

The applicability of contingency theory in determining the types of work undertaken by accounting departments has been questioned (Mouritsen, 1996) and our findings may be seen as supporting this view. However, we suggest that such a conclusion would be premature given the relatively crude proxy measures employed here. The level of globalisation of the country in which an organisation operates may be a poor guide to the level of pressures from globalisation experienced by an international group of which the organisation is a part. Furthermore, the use of sectoral concentration resulting from barriers to entry as an indicator of the degree of competition is not clear-cut (Carlton, 2004) and it simplistic to assume that firms compete mainly on price. Firms in the more highly concentrated sectors, such as utilities and financial services, may be equally, if not more, focussed on product differentiation which arguably creates a higher demand for the skills of management accountants to be deployed in the new role type than where competition is purely on price, with the concomitant

demand for cost management with which the management accountant has long been associated. Consequently, we feel these methodological limitations need to be removed through the use of more sophisticated measures before the explanatory powers of globalisation and competition are rejected.

In any event, our results reveal organisational size as a dominant characteristic in explaining the relative importance of activities/issues associated with the new role type. In the formation of the hypothesis of such a relationship, we called on the idea that the force of isomorphic change under which organisations tend to establish common norms, for example through mimetic behaviour (DiMaggio and Powell, 1983) would be stronger with increasing organisation size since the pressures to respond to globalisation, to innovate through new technology, and to meet the needs of external investors would be enhanced by transparency an external scrutiny. In addition, the incentive to maximise the contribution of finance personnel through engagement with value-creating activities is likely to be increased with the increased complexity in markets and operations associated with larger organisations and such organisations are more likely to have the capacity for implementing change due to resource availability, supporting investment in new technology, retraining and restructuring. This is not to say that the adoption of new roles for the management accountant are of no value to or beyond the reach of smaller organisations but rather that the rate of role evolution is likely to be slower in these cases.

In this interpretation, size acts as a proxy measure, representing the potential effects of a number of different organisational characteristics and drivers. A matter for further research is to what extent these may be unbundled to identify relative contributions to change. For example, complexity in the operating environment may incentivise change but leadership and financial resources may be the critical factors in implementing such change, but teasing out these effects is not possible with the current data.

As well as variation among organisations, the results demonstrate substantial variation in the importance attached to activities/issues dependent on the respondent's position within the organisation. Although the *FUNCTION* and *LEVEL* variables were included in the regression models merely as controls for their conditioning effects on perception of importance, the strength and consistency of the relationships between these variables and item importance suggest that the perceived value of activities/issues associated with the new role type is strongly influenced by the respondent's perspective and experience. Thus, management accountants operating outside the finance function in their organisation and those in more senior positions clearly ascribe significantly more importance to those activities/issues associated with the new role type and less to traditional roles in financial and management accounting. In this light, a clear implication is that the new role type is more concrete for, or perhaps substantially reserved to, those operating outside the finance function and/or at a more senior level. This is consistent with the ideas that the new role type requires individuals to develop the skills for its performance with experience (Parker, 2001) and that cross-functional working, in the sense represented by accountants working outside the finance function, typifies the new role type according to a range of authors. Nevertheless, the issue remains as to why those who see themselves as working within the finance function have such apparently differing views as to the importance of the new role type. Perhaps some element of identification with other parts of the organisation is critical to perceiving value in the new role type.

Although the primary focus here, as in previous literature, has been on commercial firms, the results point up the potential for further research in characterising role change in the public sector context. The pattern of responses from individuals within this sector involved relatively high importance attached to some traditional roles, particularly in financial reporting and management, but at the same time emphasised the importance of management and leadership, in contrast to the private sector group expected to be subject to lower levels of competition.

The evidence presented here suggests that in aggregate terms change in the importance attributable to a new role, or roles, for the management accountant has been slower than predicted previously and is consistent with the view that this requires supplementing rather than supplanting traditional technical knowledge (ACCA, 2006; Cooper, 2006; Pierce, 2002; Gabbin, 2002). However, there are clear dangers in treating all organisations and

their finance personnel as homogenous. Variations were found both at the organisational level, especially in terms of the drivers of change represented by organisational size, and across individuals, in terms of their functional attachment and seniority. The causes and implications of such variation deserve further research, as suggested above, particularly with emphasis on more sophisticated testing of the influence of drivers of change resulting from globalisation and competition. Consideration should also be given to conducting such investigations in a context that extends beyond the members of a single professional body, as was the case here (although Granlund and Lukka, 1998a, suggest that other factors are more influential on change than the normative pressures of professionalization), and with a better balance amongst countries represented within the sample.

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