

THE EMPLOYERS' PRIORITIES – VOCATIONAL SKILLS AND
CAPABILITIES FOR MANAGEMENT ACCOUNTANTS

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ABSTRACT

There has been increasing pressure on the providers of Higher Education to align courses with the needs of employers. Surveys have documented the need to develop a broad range of vocational skills. However there is a need to establish priorities, based on the demands of the workplace, within this identified skills gap.

The first section of this paper identifies the need for the development of vocational skills in general, and then specifically in the defined area of management accounting. The second section presents the views of the employers of management accountants on the relative importance of a specified set of vocational skills, and the level of these skills exhibited by graduates and recently qualified Management Accountants. These measures are then combined in a “weighted importance indicator” to indicate the skills that are most in need of development.

INTRODUCTION

The pressures to increase student numbers and simultaneously lower unit costs in Higher Education have led to a focus on quality. Various definitions of quality have been proposed but perhaps the concept of “Fitness for purpose” has gained the most widespread acceptance. Consequently, if this customer-focused view of quality is applied to higher education it is then necessary to identify the customer, or customers, of Higher Education. Employers became the focus of attention primarily as an identified customer but also as a surrogate for other wider interested parties. Surveys of the opinions of employers in the UK, such as those by Roizen and Jepson(1) and Brennan and Mcgeever(2), indicated that employers considered graduates as being unprepared for employment and lacking in vocational skills. There have been several government initiatives in this area. Higher Education: A New Framework(3) published in 1991 outlined proposals to improve the links between Higher Education and employers. Other initiatives such as Enterprise in Higher Education (EHE) and The Royal Society of Arts (RSA) Education for Capability focused on specific aspects of vocational skills development.

ACCOUNTING EDUCATION

The concerns relating to vocational skills, and ultimately their impact on the employment prospects of students, have been mirrored in the occupational area of accounting. Professional and academic associations, primarily in the USA have, mainly through published reports and statements, made public their views of the desired profile of the professional accountant (see Table 1).

One of the most interesting aspects to have arisen out of these statements is the increasing relevance given to a set of non-accounting capabilities and skills. These capabilities and skills earned the label of “essential” because, as stated by the International Federation of Accountants Education Committee(4), they enable the professional accountant to make successful use of the knowledge gained through education. The identified capabilities can be grouped as follows: -

Communication skills

- this group includes the ability to present and defend views and the results of their own work orally or in writing, in formal or informal settings. Also included is the capability to locate, obtain, organise and use information from printed, human or electronic sources.

Ability to work in groups (interpersonal skills)

- these skills enable the professional to interact with other people, to work effectively as a member of a team, to delegate tasks, to motivate other people, to resolve conflicts, and, if necessary, to assume leadership.

Problem solving skills

- this grouping makes reference to the ability to solve complex and unstructured problems in unfamiliar settings in a creative way. It also includes the capability of choosing among alternatives using logical abstract thinking. Some of the statements (for example Arthur Andersen & Co. et al. (5) and IFAC (6)) also included group work and pressure management in this group.

The views emanating from the above reports are the results of evidence gained from surveys of interested groups who expressed their views on certain skills (see Table 2). However, this empirical support has been criticised by Poe & Bushong(7), Davis & Sherman(8) and Mathews(9) for being predominantly focused on auditors and because there was little reference to the thoughts and views of Management Accountants, who are primarily industry based. This concern led the research group and the Chartered Institute of Management Accountants (CIMA) to develop the present study. CIMA, one of the six chartered accountancy bodies in the UK, is the only one of these six bodies that specialises in management accounting. Its education and training requirements are designed to produce qualified Chartered Management Accountants. The qualification focuses on management accounting and financial management rather than on financial accounting or auditing. The CIMA qualification is not designed to allow its members to perform the role of statutory auditor. CIMA members therefore do not compete with members of the other chartered bodies in this employment arena. The vast majority of CIMA members are employed in the business sector.

METHODOLOGY

A questionnaire was sent to 950 employers of management accountants in the UK. The questionnaire contained a listing of 22 skills and personal attributes that had been identified as being important by the previous research in this area. The listing of vocational skills and capabilities is illustrated in Table 3. The 22 attributes were arranged into 5 groups: communication (5 items), group working (3), problem solving (4), time management (3), information technology (2) and other skills (5).

The employers were asked, based on their experience, to score each of the attributes on an eleven point scale for three separate classifications of employees. The classifications were:

- the importance for a qualified Management Accountant
- skill level exhibited by a graduate
- skill level exhibited by a newly qualified accountant

Students after completing their undergraduate degrees enter the vocational area of management accounting as “graduates”. After completing further studies and passing the examinations of the relevant professional body they are, for the purposes of this study, referred to as “newly qualified accountants”.

An analysis of the mean scores for “importance” gives information on the skills that employers identify as being necessary for a qualified Management Accountant to perform his / her duties. The analysis of the scores reported for the skill level actually exhibited indicates those skills where performance is, in the opinion of employers, not adequate. However, an analysis that could indicate the areas that are most in need of training and development actions would be more informative. Training efforts should be directed so as to act on those specific skills that are considered to be important but where performance is below average. A statistic that allows the joint analysis of both of these characteristics is the **weighted importance indicator** (or indicator of priority: **I.P.**)

The IP weights the importance score of each individual skill by the mean of the scores for the skills levels exhibited (for all skills) divided by the score for the level exhibited of that individual skill. Consequently the IP will, given the same importance score for two skills, be higher for the skill that has a lower exhibited performance level score. Therefore the I.P. statistic indicates the priority of the individual skills in terms of the necessity to concentrate on the development of that skill. The formula is presented below:

$$IP_{gi} = imp_i \frac{\overline{exhib}_g}{exhib_{gi}}$$

PROFILE OF RESPONDENTS

Responses were received from 214 employers. Within their organisations, 82.7% and 81.2% of the respondents had responsibility for training personnel and for the selection of new staff respectively. The profile of the respondents was:

- male 78.5%, female 21.5%
- graduate 66.4%, non-graduate 33.6%
- age range: 29 to 59 years (mean age: 40 years)

The size of the organisations in which the respondents worked was:

- less than 25 employees 5.6%
- 25 to 250 employees 15.4%
- more than 250 employees 79.0%

RESULTS

Qualified Accountant

The questionnaire asked employers to rate, on a scale of 0 (very low) to 10 (very high), the importance of specified vocational skills and capabilities for a fully qualified Management Accountant. The mean scores reported by the employers for the importance of each of the listed skills for a qualified Management Accountant are shown in Table 4. The table also shows the resulting rank order of the skills.

The means of the scores reported range from 7.19 to 8.91 and have a mean of 8.22. These scores show that the employers thought that all of the vocational skills cited on the questionnaire to be important. However it can be seen that communication and time management skills dominate the table. Group working skills are also highly valued (two of the three specified skills are above the mean). None of the skills or capabilities from the group “Other skills, values and knowledge” came above the overall mean score. This is surprising given that skills such as life-long learning, effective learning and ethics are currently in vogue.

Graduates

The employers were also asked to report on a scale of 0 (very low) to 10 (very high) with 5 representing “just acceptable” the level of each skill that they had seen exhibited by graduates who were working as management accountants. These scores and the importance scores were then used to calculate the weighted importance indicator (IP score) and the resulting IP ranking. These are shown in Table 5. The

table is presented in the same rank order as Table 4 (i.e. the importance of the skill for a Management Accountant) to facilitate discussion.

The means of the scores for the levels of skills exhibited by graduates ranged from 4.52 to 6.86 with an overall mean of 5.55. Several of the skills are rated as below, or only just, acceptable.

The scores and analysis in Table 5 indicate that employers acknowledge that graduate entrants entering management accounting have good information technology skills. This is evidenced by the high scores given for the “exhibited level” skills of being able to “use relevant software” and by having “knowledge of information sources”. The two skills ranked by the employers as being the most important for a qualified Management Accountant (oral and written communication skills), are not highly exhibited by graduates. The mean scores reported by employers for the levels of these skills exhibited by graduates were 5.37 for each skill. These scores are below the overall mean but are at the “just acceptable” level. The other major area identified as important by employers was “Time Management”. The employers score the ability of graduates in this area also at the “just acceptable” level. The scores given to the skills “Have a knowledge of the accounting profession” and “Have a comprehensive and global vision of the organisation” were the lowest given to the skills exhibited by graduate entrants.

As explained earlier, the IP score indicates the priority of the individual skills in terms of the necessity to concentrate on the development of that skill. For graduate entrants the IP analysis identified the priority area for development to be “Have a

comprehensive and global vision of the organisation”. The next priority area is clearly time management: the three individual skills in this area have the second, third and fourth IP rankings. The other clear priorities are interpersonal communication skills and the group working skill “Organise and delegate tasks”. The area where there is the least perceived need for immediate development in graduate entrants is in information technology.

Newly Qualified Management Accountants

The questionnaire then asked the employers to report the level of each skill that they had seen exhibited by newly qualified Management Accountants on a scale of 0 (very low) to 10 (very high) with 5 representing “just acceptable” (i.e. just as they had done for graduates). The results, as shown in Table 6, show that in all areas the skill level was above the “just acceptable” level. The means of the scores ranged from 5.93 to 7.66 with an overall mean of 6.44.

The results show that employers acknowledge that newly qualified management accountants have good information technology skills as evidenced by being able to use relevant software and by having knowledge of information sources. The average of the mean scores for the level of communication skills exhibited was 6.35, which is below the overall mean but is above the “just acceptable” level. The other major area identified as being important by employers was “Time Management”. The level exhibited by the newly qualified management accountants was approximately the same as the overall mean. The rating given to the skill level “Have a comprehensive and global vision of the organisation” was the lowest of the scores given for the skills exhibited by the newly qualified accountants but it ranked 12th in the level of

importance. Employers, surprisingly, did not attach a high importance level to problem solving skills for fully qualified accountants and reported the ability level of newly qualified Management Accountants as being only slightly above the “just acceptable” level.

The I.P. levels indicate that the key area for future development for newly qualified Management Accountants is communication skills. Oral, writing and listening skills were ranked as the first, second and fourth priorities. The third priority identified was the requirement for employees to have a comprehensive and global vision of the organisation. Perhaps this perceived lack of vision indicates why many newly qualified accountants are encouraged to widen their education by taking an additional course e.g. MBA. There is still concern, indicated by their relative ranking, about the need for time management skills to be developed.

Table 7 shows the comparison of I.P. rankings for graduate entrants and newly qualified Management Accountants. The table shows that of the eleven areas that received the higher IP rankings for graduates, ten are still viewed as being areas that should be prioritised for development in new qualified Management Accountants. The development of a comprehensive and global vision of the organisation has moved down the rankings from first to third as a result of the exhibited level score increasing. This may well be the result of a planned exposure to the ways of the organisation or simply that the graduate has acquired ‘on the job’ experience.

Not unsurprisingly, the ninth ranked item for graduates “Have knowledge of the accounting profession” was ranked 21st at the newly qualified level. At the newly-qualified level the importance of problem solving skills is reinforced the by the inclusion of "Identify and solve unstructured problems" as the eleventh ranked IP score. There are specific individual skills and groups of skills that are identified as priorities for development. Key areas for development, indicated by the employers, at both graduate education and accountancy training levels are time management skills, communication skills and group working skills.

The employers were also asked to indicate their views, (0 = complete disagreement, 10 = complete agreement), on specific statements concerning the development of vocational skills and capabilities. Their responses are summarised in Table 8.

The responses again indicate the importance placed on vocational skills and capabilities by employers. There is clear agreement that a wider range of personal skills is necessary in the workplace to complement the specific technical knowledge of, in this case, management accounting. This is confirmed by the importance given to vocational skills and capabilities in the recruitment process. The employers show high levels of agreement with the statement that universities should give consideration to employers’ requirements. There is also agreement that the development of vocational skills and capabilities should be an explicit goal of university education. There is less agreement among employers concerning the extent to which universities actually incorporate their requirements into syllabus design.

CONCLUSIONS

There is evidence of demands both internationally and nationally to develop a broader range of vocational skills in graduates as a preparation for employment. Employers in the UK have indicated the need for Higher Education to modify their course design and development processes to rectify the imbalance between technical subject knowledge and vocational skills. Resource constraints will mean that it will be impracticable to focus on the immediate development of a broad range of vocational skills. Consequently, there is a need to establish priorities.

This paper investigates the vocational area of accounting and within this the specific area of management accounting. The published literature reflects the national and international concern that graduates need a broader range of vocational skills. The results of this survey reinforces the importance of vocational skills and capabilities to the employers of Management Accountants and therefore to Management Accountants themselves.

The use of the weighted importance indicator enabled the identification of priorities for the development of vocational skills needed in the workplace. Priorities were identified for both employers and Higher Education. For employers the integration of graduates and newly qualified Management Accountants into the specific context of the organisation concerned is identified by the survey as being of particular importance. Key areas to be targeted for future development, by both Higher Education and accountancy training are time management, communication and group working skills.

Table 1. Published Statements

American Accounting Association	1986	Bedford Report (Future Accounting education: Preparing for the Expanding Profession)
American Institute of Certified Public Accountants	1987	Future Issues Paper
American Institute of Certified Public Accountants	1988	Education Requirements for Entry Into the Accounting Profession (Review of Albers Report)
American Institute of Certified Public Accountants	1992	Academic Preparation to Become a Certified Public Accountant.
Arthur Andersen & Co et al.	1989	Perspectives on Education: Capabilities for Success in the Accounting Profession
Accounting Education Change Commission	1990	Position Statement No. 1. Objectives of Education for Accountants
International Federation of Accountants	1994	2000 and Beyond. A strategic framework for prequalification education for the accountancy profession
International Federation of Accountants	1996	I.E.G. 9: Prequalification Education, Assessment of professional competence and experience requirements of professional accountants
American Accounting Association, American Institute of Certified Public Accountants, Institute of Management Accountants, Arthur Andersen, Deloitte & Touche, Ernst & Young, KPMG, Price Waterhouse Coopers.	2000	Accounting Education: Charting the Course through a Perilous Future

Note: Full bibliographic references to the works cited in the table are available from the authors

Table 2. Opinion surveys

Skill	Reference	Group	Result
Communication	Gingras [1987]	Professional Acc.	82% consider these skills as “very important” and 78% indicate that integrated development within accounting classes is an advantage
	Novin & Pearson [1989]	CPAs	At least “quite important” for 90%.
	Novin et al.[1990]	CMAs	At least “quite important” for 90%.
	May, Windal & Silvestre [1995]	Academics	90% support greater emphasis within the accounting curriculum for these skills.
Interpersonal skills	Bhamornsiri & Guinn [1991]	Auditors	Of increasing importance with career progression.
	Gersich [1993]	Auditors	Considered as the most important in their job.
Problem solving skills	Novin & Pearson [1989]	CPAs	At least “quite important” for 95%.
	Novin et al. [1990]	CMAs	At least “quite important” for 97%.
	May, Windal & Silvestre [1995]	Academics	96 % consider that students must be able to solve unstructured problems requiring multiple information sources.

Note: Full bibliographic references to the works cited in the table are available from the authors

Table 3. Vocational Skills and Capabilities desired in Qualified Accountants

	<i>Communication skills</i>
C ₁	Present and defend points of view and outcomes of their own work, in <i>writing</i> , to colleagues, clients, and superiors
C ₂	Present and defend points of view and outcomes of their own work, <i>verbally</i> , to colleagues, clients, and superiors
C ₃	Use of visual aids in presentations
C ₄	Listen effectively to gain information and to understand opposing points of view
C ₅	Critically read written works, making judgements on their relevance and value
	<i>Group working skills</i>
G ₁	Work with others in teams
G ₂	Organise and delegate tasks
G ₃	Assume leadership positions when necessary
	<i>Problem solving skills</i>
P ₁	Identify and solve unstructured problems
P ₂	Find creative solutions
P ₃	Integrate multidisciplinary knowledge to solve problems
P ₄	Perform critical analysis
	<i>Time management</i>
T ₁	Organise the workloads to meet conflicting demands and unexpected requirements
T ₂	Organise the workloads to recognise and meet tight, strict, and coinciding deadlines
T ₃	Select and assign priorities within coincident workloads
	<i>Information technology</i>
I ₁	Use relevant software
I ₂	Knowledge of information sources
	<i>Other skills, values and knowledge</i>
O ₁	Have a commitment to life-long learning
O ₂	Ability to develop methods of effective learning
O ₃	Awareness of social and ethical responsibilities
O ₄	Have knowledge of the accounting profession
O ₅	Have a comprehensive and global vision of the organisation

Table 4. Mean scores for the importance of specific skills for qualified Management Accountants.

		<i>Mean</i>	
		<i>Score</i>	<i>Rank</i>
C ₂	Present and defend points of view and outcomes of their own work, <i>verbally</i> , to colleagues, clients, and superiors	8.91	1
C ₁	Present and defend points of view and outcomes of their own work, <i>in writing</i> , to colleagues, clients, and superiors	8.77	2
T ₃	Select and assign priorities within coincident workloads	8.77	3
T ₂	Organise the workloads to recognise and meet tight, strict, and coinciding deadlines	8.76	4
C ₄	Listen effectively to gain information and to understand opposing points of view	8.73	5
G ₁	Work with others in teams	8.68	6
T ₁	Organise the workloads to meet conflicting demands and unexpected requirements	8.52	7
I ₁	Use relevant software	8.49	8
P ₁	Identify and solve unstructured problems	8.46	9
G ₂	Organise and delegate tasks	8.33	10
P ₃	Integrate multidisciplinary knowledge to solve problems	8.28	11
O ₅	Have a comprehensive and global vision of the organisation	8.15	12
G ₃	Assume leadership positions when necessary	8.13	13
P ₄	Perform critical analysis	8.12	14
P ₂	Find creative solutions	8.07	15
C ₅	Critically read written works, making judgements on their relevance and value	7.93	16
O ₁	Have a commitment to life-long learning	7.87	17
O ₃	Awareness of social and ethical responsibilities	7.70	18
O ₄	Have knowledge of the accounting profession	7.68	19
I ₂	Knowledge of information sources	7.67	20
O ₂	Ability to develop methods of effective learning	7.54	21
C ₃	Use of visual aids in presentations	7.19	22

Table 5. Level of skills exhibited by Graduates and resultant IP scores and ranking.

		Level exhibited	IP Score	IP Rank
C ₂	Present and defend points of view and outcomes of their own work, <i>verbally</i> , to colleagues, clients, and superiors	5.37	9.20	6
C ₁	Present and defend points of view and outcomes of their own work, in <i>writing</i> , to colleagues, clients, and superiors	5.37	9.06	7
T ₃	Select and assign priorities within coincident workloads	5.10	9.55	4
T ₂	Organise the workloads to recognise and meet tight, strict, and coinciding deadlines	5.08	9.57	2
C ₄	Listen effectively to gain information and to understand opposing points of view	5.64	8.59	11
G ₁	Work with others in teams	5.96	8.07	15
T ₁	Organise the workloads to meet conflicting demands and unexpected requirements	4.95	9.55	3
I ₁	Use relevant software	6.86	6.87	19
P ₁	Identify and solve unstructured problems	5.62	8.35	12
G ₂	Organise and delegate tasks	4.92	9.39	5
P ₃	Integrate multidisciplinary knowledge to solve problems	5.14	8.93	8
O ₅	Have a comprehensive and global vision of the organisation	4.52	10.00	1
G ₃	Assume leadership positions when necessary	5.16	8.73	10
P ₄	Perform critical analysis	5.41	8.33	13
P ₂	Find creative solutions	5.54	8.09	14
C ₅	Critically read written works, making judgements on their relevance and value	5.95	7.40	18
O ₁	Have a commitment to life-long learning	6.41	6.81	20
O ₃	Awareness of social and ethical responsibilities	5.72	7.47	17
O ₄	Have knowledge of the accounting profession	4.84	8.80	9
I ₂	Knowledge of information sources	6.83	6.23	22
O ₂	Ability to develop methods of effective learning	6.36	6.57	21
C ₃	Use of visual aids in presentations	5.29	7.54	16

Table 6. Level of skills exhibited by Newly Qualified Management Accountants.

		Level exhibited	IP Score	IP Rank
C ₂	Present and defend points of view and outcomes of their own work, <i>verbally</i> , to colleagues, clients, and superiors	6.34	9.05	1
C ₁	Present and defend points of view and outcomes of their own work, in <i>writing</i> , to colleagues, clients, and superiors	6.32	8.93	2
T ₃	Select and assign priorities within coincident workloads	6.46	8.74	7
T ₂	Organise the workloads to recognise and meet tight, strict, and coinciding deadlines	6.51	8.66	9
C ₄	Listen effectively to gain information and to understand opposing points of view	6.38	8.82	4
G ₁	Work with others in teams	6.66	8.39	13
T ₁	Organise the workloads to meet conflicting demands and unexpected requirements	6.23	8.81	5
I ₁	Use relevant software	7.66	7.14	20
P ₁	Identify and solve unstructured problems	6.34	8.60	11
G ₂	Organise and delegate tasks	6.18	8.68	8
P ₃	Integrate multidisciplinary knowledge to solve problems	6.08	8.76	6
O ₅	Have a comprehensive and global vision of the organisation	5.93	8.84	3
G ₃	Assume leadership positions when necessary	6.06	8.63	10
P ₄	Perform critical analysis	6.30	8.30	14
P ₂	Find creative solutions	6.13	8.48	12
C ₅	Critically read written works, making judgements on their relevance and value	6.32	8.08	15
O ₁	Have a commitment to life-long learning	6.56	7.73	17
O ₃	Awareness of social and ethical responsibilities	6.51	7.61	18
O ₄	Have knowledge of the accounting profession	7.01	7.05	21
I ₂	Knowledge of information sources	7.24	6.82	22
O ₂	Ability to develop methods of effective learning	6.48	7.48	19
C ₃	Use of visual aids in presentations	5.93	7.80	16

Table 7 IP rankings for Graduates and newly qualified Management Accountants

		IP Grad	IP N Q	Import ance
O ₅	Have a comprehensive and global vision of the organisation	1	3	12
T ₂	Organise the workloads to recognise and meet tight, strict, and coinciding deadlines	2	9	4
T ₁	Organise the workloads to meet conflicting demands and unexpected requirements	3	7	7
T ₃	Select and assign priorities within coincident workloads	4	5	3
G ₂	Organise and delegate tasks	5	8	10
C ₂	Present and defend points of view and outcomes of their own work, <i>verbally</i> , to colleagues, clients, and superiors	6	1	1
C ₁	Present and defend points of view and outcomes of their own work, in <i>writing</i> , to colleagues, clients, and superiors	7	2	2
P ₃	Integrate multidisciplinary knowledge to solve problems	8	6	11
O ₄	Have knowledge of the accounting profession	9	21	19
G ₃	Assume leadership positions when necessary	10	10	13
C ₄	Listen effectively to gain information and to understand opposing points of view	11	4	5

Table 8. Employers' Perspectives on Vocational Skills and Capabilities

Professional accountants only need technical knowledge to successfully perform accounting duties.	1.84
In personnel selection these skills are given at least the same value as the accounting knowledge	7.37
Universities when designing new syllabuses should pay attention to work place requirements	7.66
The development of these skills must be an explicit goal of university education	6.79
Universities when designing syllabuses do pay attention to work place requirements	4.99

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