

The Vocational Skills Gap for Management Accountants: The Stakeholders' Perspectives

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SUMMARY

Previous research into the views of employers of accountants has identified the need to develop a broad range of wider vocational skills. This paper identifies the relative importance of a specified range of vocational skills needed for a chartered management accountant to discharge his/her duties. Views are sought from the employers of management accountants and from management accounting students who are currently in the process of qualifying. By analysing the relative importance of the skills and the level of skills actually exhibited, this study prioritizes areas for development and training. The findings of this study confirm that employers and students recognize that it is important for accountants to develop a range of vocational skills. There is broad agreement between the employers and the students on the areas to prioritize. However, there are differences in the specific priorities. The employers and students also agree that the development of vocational skills should be integrated into the accounting curriculum.

INTRODUCTION

Increased calls for accountability in education and training have in turn led to an increasing emphasis on 'value for money' coupled with the continuing assurance that standards are being maintained. Consequently, the use of quality based approaches in the management of education and training has increased. The operating definition of quality most frequently used in these circumstances is 'fitness for purpose'. The two questions that normally follow from this definition are: 'for whom?' and 'for what?' This view of the quality process takes a customer focused approach and the level of customer satisfaction with the product or service measures the fitness for purpose. The extent to which the product or service meets customers' needs will measure its quality. The first priority is, therefore, to identify the customer.

This paper develops a case study that examines the process of the professional education and training of management accountants. The professional body at the centre of this study is the Chartered Institute of Management Accountants (CIMA). In order to obtain status and recognition as a fully qualified

management accountant, students have to pass a suite of examinations and provide evidence of practical experience in specified related areas.

Within this education and training process, it is possible to recognize three potential customers. Firstly, the student is the customer who 'buys' the product, i.e. the chosen professional accreditation programme, with the expectation of a future improvement in his/her standard of living. In a second perspective, the student is a 'product' that is 'transformed' by the educational process into a citizen with added value in terms of capabilities (skills and knowledge). In this wider second view, society is the 'customer' and is seen as being represented directly by the job market. In this perspective, the surrogate for society could be seen as either employers (current and future) or the professional body itself.

The students in this instance will be in the main in employment of organizations requiring a management accounting service. The size and complexity of these organizations can and does vary considerably.

The student is employed as part of the provision of the management accounting services and will be undergoing a professional development process in parallel. The quality of this development process in terms of the level of support offered by differing employers will also vary considerably. The pressure on the student to maintain and possibly improve their position within the organization whilst at the same time passing an increasingly complex set of professional examinations and developing the required vocational skills inevitably creates tension.

A professional body does not exist in its own right. It exists as a function of its membership who, in this case, are the qualified management accountants who themselves have completed the education and training process. The professional body exists to serve the interests of its members. It is charged with the responsibility of designing and implementing an education and training system that will encourage students to enter the profession and thereby perpetuating membership and ensuring succession. However, perhaps a greater responsibility is to ensure that the education and training scheme meets the needs of the ultimate users, i.e. the current and potential employers of the professional body's members and students. In order to do this, the needs of the employers must be identified.

ACCOUNTING EDUCATION

The focus of accounting education and training has been the subject of many debates. Professional associations and employers have raised their concerns. Their major statements, many of which have originated in the USA, are summarized in Figure 1.

Undoubtedly the major point arising from these reports is the emphasis that has been placed on the need to develop vocational skills. The gap between the vocational skills desired by employers and those actually exhibited by potential employees has emerged as a major cause of concern. The Bedford Report (AAA, 1986) identified a widening gap between what accountants do and what accounting educators teach. The Big Eight Report (Arthur Andersen & Co., 1989) was constructive in suggesting that a major area that required development in order to meet employer requirements was vocational skills. These developments were formalized by the issue of Objectives of Education for Accountants: Position Statement Number One (AECC, 1990) in which it was stated that in order for accountants to be

successful they must possess communication skills, intellectual skills and interpersonal skills.

The most recent report, *Accounting Education: Charting the course through a perilous future* (Albrecht and Sack, 2000), notes that educational models continue to focus too narrowly on knowledge content at the expense of skills development. In their study, Albrecht and Sack noted employers and educators were in substantial agreement over the relative importance of specific vocational skills but they did not prioritize the areas that need to be developed. Their study also did not reflect the views of the individuals who are actually experiencing the process of the accounting education and training, i.e. the students. This study captures the views of students and employers, and then prioritizes areas for development.

METHOD

The research methodology used was based on an opinion survey. The survey was sent to two distinct groups: employers of management accountants, and students actively pursuing the goal of becoming a qualified as management accountant. The instrument used to gather the opinions was a mail questionnaire. The first section of the questionnaire gathered personal data from the respondents. The second section contained opinion based questions that were to be answered on an 11-point scale. These questions were grouped into two sub-sections:

1. Specific vocational skills – this section consists of an inventory of 22 skills and capabilities grouped into five groups: communication skills (five items), group skills (three), problem solving skills (four), pressure and time management (three), information technology (two) and others (five). The listing of the vocational skills specified is shown in Figure 2.
2. Broad curriculum policy – questions in this section were designed to elicit responses on the respondents' attitudes to overall curriculum development in terms of direction, content, responsibility and design.

The constituents of the taxonomy were chosen with reference to the previous research highlighted in Figure 1 and the results of evidence gained from previous research undertaken in the specific skills areas.

For each item in Figure 1, the employers and the student were asked to indicate the importance of the

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 <i>et al.</i>	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
Albrecht and Sack	2000	Accounting Education: Charting the Course through a Perilous Future
American Accounting Association, American Institute of Certified Public Accountants, Institute of Management Accountants, Arthur Andersen, Deloitte & Touche, Ernst & Young, KPMG, Price Waterhouse Coopers.		

Figure 1 *Published statements*

skill, capability or knowledge topic for the adequate performance of accounting duties by a qualified management accountant. The employers were then asked to report on the level of the skills and attributes exhibited by newly qualified management accountants. The students were asked to indicate the level of the skills exhibited by their fellow CIMA students in order to establish a combined priority.

By analysing the responses, it is possible to identify the desired profile of a chartered management accountant and the perceived deficiencies in the development of vocational skills. It will also be possible to identify the differences between the self-reported abilities of students and those reported for newly qualified management accountants by their employers.

An analysis of the mean scores for 'importance' will give information on the skills that are thought to be necessary for a chartered management accountant to perform his/her duties. The analysis of the scores reported for the skill level actually exhibited could highlight those skills where performance is, in the opinion of the respondents, not adequate.

However, an analysis that will 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, developed by the authors, that allows a combined analysis of 'importance' and 'performance' is the *weighted importance indicator* (or indicator of priority: IP).

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 perceived exhibited performance level score. Therefore, the IP statistic indicates the priority of each of the individual skills in terms of the necessity to concentrate on the development of that skill. The formula is presented below:

$$IP_{gi} = \text{imp}_i \frac{\overline{\text{exhib}}_g}{\text{exhib}_{gi}}$$

The ranking of the IP scores registered by the two groups of respondents will reflect their perception of the relative necessity for the development of specific individual vocational skills. It will then be possible to

Communication skills

- C₁ Present and defend points of view and outcomes of their own work, in *writing*, to colleagues, clients, and superiors
- C₂ Present and defend points of view and outcomes of their own work, *verbally*, to colleagues, clients, and superiors
- C₃ Use of visual aids in presentations
- C₄ Listen effectively to gain information and to understand opposing points of view
- C₅ Critically read written works, making judgements on their relevance and value

Group working skills

- G₁ Work with others in teams
- G₂ Organize and delegate tasks
- G₃ Assume leadership positions when necessary

Problem solving skills

- P₁ Identify and solve unstructured problems
- P₂ Find creative solutions
- P₃ Integrate multidisciplinary knowledge to solve problems
- P₄ Perform critical analysis

Time management

- T₁ Organize the workloads to meet conflicting demands and unexpected requirements
- T₂ Organize the workloads to recognize and meet tight, strict, and coinciding deadlines
- T₃ Select and assign priorities within coincident workloads

Information technology

- I₁ Use relevant software
- I₂ Knowledge of information sources

Other skills, values and knowledge

- O₁ Have a commitment to life-long learning
- O₂ Ability to develop methods of effective learning
- O₃ Awareness of social and ethical responsibilities
- O₄ Have knowledge of the accounting profession
- O₅ Have a comprehensive and global vision of the organization

Figure 2 Vocational skills and capabilities for qualified management accountants

contrast the respective rankings of the two groups – CIMA employers and CIMA students – to compare and contrast their relative vocational skills development priorities.

RESULTS

The number of valid responses from CIMA employers was 214, giving a response rate of 22.5%. Within this sample, the gender balance was 168 men and 46 women. The educational background of the employers was that 142 of them were graduates and 72 did not have a university degree. The age of the employers ranged from 25 to 59 years with a mean of 40 years. In terms of organizational size, 5.6% of the employers worked in small firms (less than 25 employees), 15.4% in medium size firms (from 25 to 250 employees) and 79% in large firms (more than 250 employees). The employers also indicated that

82.7% of them had responsibility for personnel training and 81.2% for new staff selection.

The CIMA students' response rate was 21% (209 responses). The student gender balance was male 53% and female 47%. This is consistent with the registered student population of CIMA. The ages of the student respondents ranged from 18 to 52 years with a mean age of 30 years. The students reported that they had been employed in an accounting environment for between 1 to 35 years with a mean accounting employment period of 8 years. The student sample consisted of 50% non-graduates, 18% accounting graduates and 32% 'other' graduates. These figures are consistent with the overall CIMA student population.

The questionnaire asked CIMA employers and students 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 and students for the importance of each of the listed skills for a qualified management accountant are shown in Table 1. The scores indicate that both groups considered each one of the specified vocational skills to be of importance for the successful discharge of duties by a management accountant. The means of the scores reported by CIMA employers

range from 7.19 to 8.91 and have an overall mean of 8.21. It can be seen that the employers placed an emphasis on communication and time management skills. Group working skills are also highly valued by employers (two of the three specified skills from that group are above the mean). None of the skills or capabilities from the group 'Other skills, values and knowledge' score above the mean. This is surprising given that skills such as lifelong learning, effective learning and ethics are currently in vogue.

Table 1 Mean scores for the importance of specific vocational skills for qualified management accountants as indicated by employers and students

	Employers		Students	
	Mean	Rank	Mean	Rank
<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	8.77	2	8.61	9
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	8.67	7
C ₃ Use of visual aids in presentations	7.19	22	7.04	22
C ₄ Listen effectively to gain information and to understand opposing points of view	8.73	5	8.71	6
C ₅ Critically read written works, making judgements on their relevance and value	7.93	16	7.79	19
<i>Group working skills</i>				
G ₁ Work with others in teams	8.68	6	8.73	5
G ₂ Organize and delegate tasks	8.33	10	8.52	10
G ₃ Assume leadership positions when necessary	8.13	13	8.50	11
<i>Problem solving skills</i>				
P ₁ Identify and solve unstructured problems	8.46	9	8.65	8
P ₂ Find creative solutions	8.07	15	8.20	15
P ₃ Integrate multidisciplinary knowledge to solve problems	8.28	11	8.17	16
P ₄ Perform critical analysis	8.12	14	8.29	14
<i>Time management</i>				
T ₁ Organize the workloads to meet conflicting demands and unexpected requirements	8.52	7	8.87	2
T ₂ Organize the workloads to recognize and meet tight, strict, and coinciding deadlines	8.76	4	8.99	1
T ₃ Select and assign priorities within coincident workloads	8.77	3	8.85	3
<i>Information technology</i>				
I ₁ Use relevant software	8.49	8	8.77	4
I ₂ Knowledge of information sources	7.67	20	8.02	17
<i>Other skills, values and knowledge</i>				
O ₁ Have a commitment to lifelong learning	7.87	17	7.85	18
O ₂ Ability to develop methods of effective learning	7.54	21	7.75	20
O ₃ Awareness of social and ethical responsibilities	7.70	18	7.73	21
O ₄ Have knowledge of the accounting profession	7.68	19	8.33	13
O ₅ Have a comprehensive and global vision of the organization	8.15	12	8.38	12
Mean	8.21		8.34	

The responses from the CIMA students ranged from 7.04 to 8.99 with an overall mean of 8.34. The CIMA students clearly place an emphasis on time management skills: the three time management skills are their highest ranked skills. The CIMA students indicated that in their opinion, communication skills are also highly important for the adequate performance of duties by a management accountant. Consistent with the employers' views, the students did not score any of the skills from the group 'Other skills, values and knowledge' above their overall mean score.

The means and ranges for the CIMA employers are similar to those reported by the students. The similarity also extends to the scorings of the specific vocational skills. It is interesting to note that the same ten skills are the ones at the top of the rankings produced by the employers and the students. These are shown in Table 2.

It is important to recognize that there is a difference in emphasis between the two groups in terms of the ultimate ranking of the importance of specific vocational skills. The individual vocational skills that predominate in the opinion of the CIMA employers are those from communication skills grouping but the students place emphasis on time management skills. The other skills groups recognized as being important by the employers and the students are group working skills, information technology and problem solving skills

The questionnaire asked the CIMA employers to rate, on a scale of 0 (very low) to 10 (very high), the level of each of the vocational skills that they had seen demonstrated by newly qualified management accountants. The students surveyed were asked to

indicate the levels achieved in their opinion by their fellow CIMA students. The means of the scores and rankings, for the level actually exhibited, as reported by the CIMA employers and students, for each of the specified skills are shown in Table 3.

The means of the scores reported by employers for the levels exhibited by newly qualified management accountants range from 5.93 to 7.66 and have a mean of 6.4. For CIMA students, the range is 5.31 to 7.71 with a mean of 6.58. The students' scores indicate that they view the performance of their peers, on average, as marginally better than the employers view the performance of newly qualified management accountants.

The scores in Table 3 indicate that CIMA employers and students acknowledge that newly qualified and student management accountants have good information technology skills. This can be seen from the high scores given to 'use relevant software' and 'knowledge of information sources'. The two skills ranked earlier by the employers as being the most important for a qualified management accountant (i.e. oral and written communication skills) are not seen by them as being highly exhibited by newly qualified Management Accountants. The mean scores reported by employers for the levels of these skills exhibited by newly-qualified were 6.34 and 6.32 respectively; both are below the overall mean (6.40). The students' ratings of the performance of their peers in these communication skills (6.42 and 6.50) are also below their overall mean (6.58).

The CIMA students ranked the three 'time management' skills as being the most important skills. The CIMA students reported the performance of their peers in this area as being reasonably good

Table 2 Comparison of rankings of importance scores by CIMA employers & students

	Employers	Students
C ₂ Present and defend points of view and outcomes of their own work, <i>verbally</i> , to colleagues, clients and superiors	1	7
C ₁ Present and defend points of view and outcomes of their own work, in <i>writing</i> , to colleagues, clients and superiors	2	9
T ₃ Select and assign priorities within coincident workloads	3	3
T ₂ Organize the workloads to recognize and meet tight, strict and coinciding deadlines	4	1
C ₄ Listen effectively to gain information and to understand opposing points of view	5	6
G ₁ Work with others in teams	6	5
T ₁ Organize the workloads to meet conflicting demands and unexpected requirements	7	2
I ₁ Use relevant software	8	4
P ₁ Identify and solve unstructured problems	9	8
G ₂ Organize and delegate tasks	10	10

Table 3 Skill level exhibited by newly qualifieds and students

	Newly qualified		Students	
	Mean	Rank	Mean	Rank
<i>Communication skills</i>				
C ₁ Present and defend points of view and outcomes of their own work, in writing, to colleagues, clients and superiors	6.32	=13	6.50	12
C ₂ Present and defend points of view and outcomes of their own work, verbally, to colleagues, clients and superiors	6.34	=11	6.42	=14
C ₃ Use of visual aids in presentations	5.93	=21	5.31	22
C ₄ Listen effectively to gain information and to understand opposing points of view	6.38	10	6.83	= 8
C ₅ Critically read written works, making judgements on their relevance and value	6.32	=13	5.88	21
<i>Group working skills</i>				
G ₁ Work with others in teams	6.66	4	6.94	5
G ₂ Organize and delegate tasks	6.18	17	6.10	19
G ₃ Assume leadership positions when necessary	6.06	20	5.98	20
<i>Problem solving skills</i>				
P ₁ Identify and solve unstructured problems	6.34	=11	6.83	= 8
P ₂ Find creative solutions	6.13	18	6.36	16
P ₃ Integrate multidisciplinary knowledge to solve problems	6.08	19	6.11	18
P ₄ Perform critical analysis	6.30	15	6.43	13
<i>Time management</i>				
T ₁ Organize the workloads to meet conflicting demands and unexpected requirements	6.23	16	6.87	7
T ₂ Organize the workloads to recognize and meet tight, strict and coinciding deadlines	6.51	= 6	7.14	2
T ₃ Select and assign priorities within coincident workloads	6.46	9	7.13	3
<i>Information technology</i>				
I ₁ Use relevant software	7.66	1	7.71	1
I ₂ Knowledge of information sources	7.24	2	7.10	4
<i>Other skills, values and knowledge</i>				
O ₁ Have a commitment to lifelong learning	6.56	5	6.70	11
O ₂ Ability to develop methods of effective learning	6.48	8	6.80	10
O ₃ Awareness of social and ethical responsibilities	6.51	= 6	6.42	=14
O ₄ Have knowledge of the accounting profession	7.01	3	6.91	6
O ₅ Have a comprehensive and global vision of the organization	5.93	=21	6.35	17
Mean	6.40		6.58	

(6.87, 7.14 and 7.13). However, the employers scored the ability exhibited in this area by newly qualifieds at lower levels (6.23, 6.51 and 6.46). A comparison of the respective highest rankings by CIMA employers and students of the levels of exhibited vocational skills is shown in Table 4.

Eight of the highest ten skills levels exhibited by newly qualified are also highly exhibited by students. However, there are differences. The rankings indicate that CIMA employers observe newly qualified man-

agement accountants exhibiting high levels of abilities in four of the vocational skills from the 'Other skills values and knowledge' category. The levels of ability exhibited in the vocational skills 'Have a commitment to life long learning' and 'awareness of social and ethical awareness' by students are not high; they are ranked only 11th and 14th for students. One area where there is a large difference of opinion is 'Organize the workloads to meet conflicting demands and unexpected requirements': the CIMA students scores rank the abilities of their peers in this

Table 4 Rankings of skill level exhibited by newly qualified and student management accountants reported by CIMA employers and students respectively

	Newly qualified	Students
I ₁ Use relevant software	1	1
I ₂ Knowledge of information sources	2	4
O ₄ Have knowledge of the accounting profession	3	6
G ₁ Work with others in teams	4	5
O ₁ Have a commitment to lifelong learning	5	11
O ₃ Awareness of social and ethical responsibilities	=6	=14
T ₂ Organize the workloads to recognize and meet tight, strict and coinciding deadlines	=6	2
O ₂ Ability to develop methods of effective learning	8	10
T ₃ Select and assign priorities within coincident workloads	9	3
C ₄ Listen effectively to gain information and to understand opposing points of view	10	8

area as seventh but the employers rank the abilities of newly qualifieds in this skill as 16th. Clearly, students are not as good as they think they are in this skill. There is clear agreement that high levels of abilities in 'Information technology' are exhibited.

The survey gathered opinions on two different attributes for each item on the skills and knowledge inventory: *importance* (in the opinion of employers and students) and the *level exhibited* (by newly qualifieds as viewed by employers, and by students as viewed by their peers). When attempting to plan and prioritize training and development, a separate analysis of either attribute would be relatively ineffective. A statistic that allows the joint analysis of both of the attributes is the *weighted importance indicator* (or indicator of priority: IP) The IP will, given the same importance score for two skills, be higher for the skill that has a lower exhibited performance level score. The IP statistic will therefore indicate the priority of the individual skills in terms of the necessity to concentrate on the development of that skill. This is a useful analysis given that in most circumstances constraints will be placed on the resources available. The function of the IP score is to indicate the relative priority for future development. The IP scores and the resultant rankings for the newly qualified and student management accountants are shown in Table 5.

The IP scores for newly qualified management accountants ranged from 6.82 to 9.05; whilst for students the range is 7.43 to 9.35. Based on the employers' scores the priority is to develop the communication skills of newly qualified management accountants. Whereas for students, their IP scores suggest that their priorities are group-working skills. As would be expected, given the high level of skills exhibited, the information technology category skills earn low IP scores for both groups.

The IP rankings derived from the employers scores for newly qualified management accountants show that the development of communication skills is the highest priority: three of the five communication skills are ranked in the top four IP scores. All three time management skills have high IP scores for the newly qualifieds and thereby highlight the requirement of their employers for them to develop these skills. The importance of developing the vocational skill of 'having a comprehensive and global vision of the organization' for both groups can be seen by the third and eighth IP rankings. This is, in many ways, a skill that is contextual and can only be developed in the workplace. It relates to 'real world' situations and demands the move from textbook knowledge to practical application.

The rankings of the IP scores for CIMA students, as reported by their peers, does not present such a clearly defined pattern. The CIMA students prioritize group-working skills: 'assume leadership positions when necessary' and 'organize and delegate tasks' are ranked first and second respectively (as opposed to the respective tenth and eighth rankings by the CIMA employers as shown in Table 6). Communication skills are a priority (the need to develop oral and written communication skills being ranked third and seventh respectively by their IP scores) but not as high as by the employers. There are rankings of fifth and sixth for 'use of visual aids in presentations' and 'critically read written works, making judgements on their relevance and value'. The skill 'organize the workloads to meet conflicting demands and unexpected requirements' is the only skill from the time management grouping that is in the top ten CIMA students' IP rankings. The employers' scores highlight the need to develop all three of the skills from this grouping in the newly qualified management accountants.

Table 5 IP scores for newly qualified and student management accountants

	Newly qualified		Students	
	IP	Rank	IP	Rank
<i>Communication skills</i>				
C ₁ Present and defend points of view and outcomes of their own work, in writing, to colleagues, clients and superiors	8.93	2	8.72	7
C ₂ Present and defend points of view and outcomes of their own work, verbally, to colleagues, clients and superiors	9.05	1	8.89	3
C ₃ Use of visual aids in presentations	7.80	16	8.72	5
C ₄ Listen effectively to gain information and to understand opposing points of view	8.82	4	8.39	12
C ₅ Critically read written works, making judgements on their relevance and value	8.08	15	8.72	6
<i>Group working skills</i>				
G ₁ Work with others in teams	8.39	13	8.28	15
G ₂ Organize and delegate tasks	8.68	8	9.19	2
G ₃ Assume leadership positions when necessary	8.63	10	9.35	1
<i>Problem solving skills</i>				
P ₁ Identify and solve unstructured problems	8.60	11	8.34	13
P ₂ Find creative solutions	8.48	12	8.48	10
P ₃ Integrate multidisciplinary knowledge to solve problems	8.76	6	8.80	4
P ₄ Perform critical analysis	8.30	14	8.48	11
<i>Time management</i>				
T ₁ Organize the workloads to meet conflicting demands and unexpected requirements	8.81	5	8.50	9
T ₂ Organize the workloads to recognize and meet tight, strict and coinciding deadlines	8.66	9	8.29	14
T ₃ Select and assign priorities within coincident workloads	8.74	7	8.17	16
<i>Information technology</i>				
I ₁ Use relevant software	7.14	20	7.49	21
I ₂ Knowledge of information sources	6.82	22	7.43	22
<i>Other skills, values and knowledge</i>				
O ₁ Have a commitment to lifelong learning	7.73	17	7.71	19
O ₂ Ability to develop methods of effective learning	7.48	19	7.50	20
O ₃ Awareness of social and ethical responsibilities	7.61	18	7.92	18
O ₄ Have knowledge of the accounting profession	7.05	21	7.93	17
O ₅ Have a comprehensive and global vision of the organization	8.84	3	8.68	8

Table 6 Comparison of the highest ranking I.P. scores for newly qualifieds and students

	Newly qualified	Students
C ₁ Present and defend points of view and outcomes of their own work, verbally, to colleagues, clients and superiors	1	3
C ₂ Present and defend points of view and outcomes of their own work, in writing, to colleagues, clients and superiors	2	7
O ₅ Have a comprehensive and global vision of the organization	3	8
C ₄ Listen effectively to gain information and to understand opposing points of view	4	12
T ₁ Organize the workloads to meet conflicting demands and unexpected requirements	5	9
P ₃ Integrate multidisciplinary knowledge to solve problems	6	4
T ₃ Select and assign priorities within coincident workloads	7	16
G ₂ Organize and delegate tasks	8	2
T ₂ Organize the workloads to recognize and meet tight, strict and coinciding deadlines	9	14
G ₃ Assume leadership positions when necessary	10	1

The questionnaire then asked the CIMA employers and students to respond to statements about the development of vocational skills. They were asked to indicate their views, (0 = complete disagreement, 10 = complete agreement), on specific statements about the development of vocational skills and capabilities. Their responses are summarized in Table 7.

The CIMA employers and students share the view that there is a need for students preparing to work in the vocational area of management accounting to develop vocational skills. This is shown by the clear disagreement with the statement that technical skills are all that are required to perform accounting duties and the agreement that vocational skills are clearly recognized in recruitment situations. The role of the professional body in developing vocational skills is also recognized by both CIMA employers and students. However, both groups are less certain that this role is being carried out effectively. The CIMA employers and students both agree that the integration of vocational skills development and technical accounting knowledge is desirable. This is shown by the relatively strong agreements with the statements concerned with integration into the accounting curriculum and the use of certain teaching methods to simultaneously develop vocational skills and technical accounting knowledge. There is, however, relative uncertainty as to whether it would be better to achieve vocational skills development by the provision of additional specific courses.

CONCLUSION

Numerous earlier reports and studies have voiced concerns about the need to recognize the importance of, and then develop, vocational skills. This paper

focused specifically on the skills required by chartered management accountants. The CIMA employers and students surveyed recognized that qualified management accountants need more than just technical knowledge to perform their accounting duties and thereby share the concerns voiced in those earlier reports and studies.

Albrecht and Sack (2000) noted that employers and educators agreed on the importance of specific vocational skills, but their study did not prioritize the areas in need of development. This study gathered the views of employers and students on the importance of specific vocational skills and then asked the respondents to report the level of those skills that they had seen exhibited. Then, through the construction of the IP indicator based on a joint analysis of the relative importance of the skills and the level actually being exhibited, areas for development were prioritized.

The CIMA employers and CIMA students were in agreement of the ten most important skills needed by a chartered management accountant. However, the rank order of these ten skills was different. The CIMA employers' scores showed that they thought that communication was the most important skill, whilst the CIMA students thought it was time management. The other groups of skills identified as having importance were group working, information technology and problem solving skills. There was also a degree of agreement between the employers and the students on the level of skill actually being exhibited: eight of the top ten rankings for each of the groups were for the same skills.

The scores for 'importance' and skill level 'exhibited' were then combined using the IP in order to

Table 7 CIMA employers and student responses to statements on vocational skills development

	Employers	Students
Qualified accountants only need technical knowledge to successfully perform accounting duties	1.84	2.08
In personnel selection these skills are given at least the same value as the accounting knowledge	7.37	6.77
Professional bodies when designing new syllabuses should pay attention to work place requirements	8.55	8.41
Professional bodies when designing syllabuses do pay attention to work place requirements	6.49	5.78
The development of these skills should be integrated into all subject areas in the accounting curriculum	7.73	7.22
It is better to achieve skills development by additional specific courses	5.31	5.52
Using certain teaching methods it is possible to develop skills simultaneously with the teaching of technical accounting knowledge	7.09	7.35
The development of these skills is at the cost of time for technical knowledge coverage	4.69	4.80

identify areas for development. The analysis of the scores for the employers and the students revealed that seven skills are high priority for development in both newly qualified Management Accountants and students. There is a clear message from the employers that their priority is the development of communication skills in newly qualifieds. This is followed by the identified necessity to develop time management skills. The priorities as viewed by the students are slightly less clear. The area of group working skills is identified as the main priority with communication skills also identified as an area in need of development. There is agreement from both the CIMA employers and the students on the need for accountants to develop a comprehensive and global vision of the organization in which they work. Whilst there is a degree of general agreement between CIMA employers and students concerning vocational skills development priorities for management accountants there are minor differences in terms of their relative ranking of priorities.

Whilst there is general agreement on the priorities for vocational skills development for future management accountants, there is some uncertainty as to how this should be achieved. The CIMA employers and students agree that professional bodies should incorporate work-based requirements when designing new syllabi but they are less certain that this is in fact carried out. Both groups indicate a preference for integrating vocational skills into all subject areas in the accounting curriculum and view this as possible but are uncertain of the benefit from the provision of additional specific courses. Their view of the importance of vocational skills is confirmed by their agreement that in the personnel selection process, vocational skills are given at least the same value as accounting knowledge.

The results indicate that the priorities for vocational skills development derived from the analysis of the views of two major stakeholders in the education and training process of the Chartered Institute of Management Accountants are closely aligned. If the professional body adopts a 'fitness for purpose' view of quality in order to ensure that it continues to meet the needs of its 'customers', these views should be carefully considered when it reviews its education and training programme.

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