

Perspectives of accounting students and teachers on the changing role of management accountants in organisations

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ABSTRACT

Owing to a highly competitive global market, economic crises and changes in manufacturing and information technology, organisations are compelled to improve their financial planning and control functions. These and other changes have contributed to the evolving role of the management accounting function in organisations. Whereas cost accounting's main focus was on finding the cost of manufacturing products, the objective of management accounting is to use financial and non-financial information to assist management with decision making. Although management accountants have long played multiple roles in organisations, there is a definite shift towards a more strategic approach, opening up new vistas of opportunity. However, this widening scope of the changing practice of management accounting demonstrates a lack of a recognisable and coherent occupational identity. The objective of this study was to determine whether prospective accounting students and accounting teachers are aware of the changing role and status of management accountants. This study presents the results of a survey among first-year accounting students as well as interviews with accounting teachers to assess their perceptions of the current role of management accountants in organisations. This study exposes a lack of knowledge of the status of management accountants and their strategic role in organisations. Recommendations are made for tertiary institutions to alleviate this information gap and for further research on this issue.

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Key words: management accounting, management accountant, chartered management accountant, strategic management accountant

Introduction

Management accounting is not a new or unknown subject or practice. As early as the 1700s, there was conclusive evidence of British entrepreneurs being engaged in cost management practices such as expense control, responsibility management, product costing, overhead allocation, budgets, forecasts and inventory control (Fleischman & Parker 1991), while purposeful costing in the United States (US) textile industry, using simple averaging and allocation procedures, can be traced back to the early 1800s (Fleischman & Tyson 2006: 1091; Sorensen 2008: 1271). However, over the years, many new topics have been introduced, with the result that modern management accounting has a much broader focus and contributes significantly to the strategic decision making function in organisations. Changes to the management accounting environment are the result of, *inter alia*, business internationalisation and globalisation, advances in information technology, increased competition, the knowledge-based economy, economic recessions, cumulative pressure from rising competition, and a new focus on quality and customer service (Böer 2000; Botes 2005: 244; Gupta & Gunasekaran 2005: 339; Parker 2002; Waweru, Hoque & Uliana 2004: 675).

In the light of this broadening scope in management accounting theory and practice, the role and status of the management accountant (MA) has also evolved over time. Management accounting has even been referred to as “the nerve centre of the organisation” and the designation has grown exponentially in recent times, for example, over 50% of US certified public accountants work in business and industry (Fleming 2005: 67). Public accountants working in business and industry focus mainly on financial management, rather than on auditing (Barac 2009: 88). The recent tendency to train students for a career in management accounting is emphasised by the many tertiary education institutions in South Africa seeking accreditation from, *inter alia*, the Chartered Institute of Management Accountants (CIMA) in the United Kingdom (UK). Furthermore, the chartered accountancy profession in South Africa also expects trainee accountants who specialise in financial management to spend 85% of their core experience traineeship hours in management accounting and financial management (Barac 2009: 89; SAICA 2006). South African trainee accountants have the option either to follow the training inside the public practice (TIPP) route and become auditors, or outside the public practice (TOPP) route

and focus mainly on financial management. The fact that the American Institute of Certified Public Accountants (AICPA) and CIMA recently conducted a joint venture by establishing a globally recognised management accounting designation, the Chartered Global Management Accountant (CGMA), is further evidence of the redefinition of the management accounting profession (CIMA 2011).

Recent research conducted by Ask Africa “measured the awareness, recognition, reputation, standing and perception of the chartered accountancy [CA(SA)] designation in comparison to other business designations” (Wadee 2010: 6). According to this research, the CA(SA) designation is by far South Africa’s leading business designation. However, while the chartered management accounting qualification enjoys international status, not many studies have been conducted to measure the awareness of South African students and school-leavers of the role and status of the management accounting designation. The problem is that although many students and school leavers are familiar with how to become a chartered accountant (CA), not many are aware of the fact that they can become a chartered/certified management accountant (CMA) and actively pursue a career as an MA. Although management accounting knowledge forms part of the technical competencies of the CA qualification, the CMA qualification boasts a different knowledge and skills set and should be branded as such.

After explaining the purpose of the study, the paper commences with a review of the literature on the changing role and status of MAs in modern business organisations. The research methodology is then described, followed by a discussion of the results of the empirical survey. The paper concludes with suggestions for further research.

Purpose of the study and problem investigated

The purpose of this study was to investigate first-year accounting students’ perception of the changing role of MAs and also to determine their awareness of the value of the CMA brand. This study is motivated by the fact that over the years, the literature shows a lack of common understanding about the role of management accountants in organisations. It could therefore be anticipated that school-leavers and students might also be unsure about it. Students’ perceptions are critical, because research has shown that prospective students may select careers according to the stereotype they have of persons in those careers (Ferreira & Santoso 2008; Hunt, Anthony & Intrieri 2004; Wessels & Steenkamp 2009). Since MAs’ roles are so diverse, it becomes difficult to stereotype them, and students may therefore pursue accounting careers with which they are more familiar.

The researcher also endeavoured to conduct interviews with grade 11 and 12 Accounting teachers to examine their views on the role of MAs in organisations in order to determine their knowledge of the topic. It is important that they have the necessary knowledge of the role and status of MAs for them to provide the necessary guidance to school-leavers on a prospective management accounting career. This study could, *inter alia*, benefit marketing initiatives in secondary schools, especially those driven by educational institutions accredited by CIMA. It could also highlight the need for management accounting educators at universities to better inform their students of the possibilities and opportunities of a management accounting career.

Literature review

The term ‘management accounting’, with the emphasis on decision making, only emerged during the 1950s to replace the more practical, administrative ‘cost accounting’ term, which clearly confirmed the profession’s need to leave behind associations with operational management (Ahrens & Chapman 2000: 481; Böer 2000: 318). Various new management accounting techniques or methods have also received a great deal of attention in recent years. According to Horngren (2004: 207), this increased interest in the discipline is commendable, because it forces managers to focus on the fundamentals of their organisations, which leads to more efficient processes and decision support. Techniques and concepts such as activity-based management (ABM), strategic performance measurement systems and enterprise information systems are now also part of the management accounting discipline, with the result that the management accounting job title is being replaced with new labels such as ‘finance analyst’, ‘business advisor’, ‘controller’, ‘global expense manager’ and ‘strategic management accountant’ (Ahrens & Chapman 2000: 477; Burns, Hopper & Yazdifar 2004: 4; Tillmann & Goddard 2008: 86). The variety of job titles is indicative of the diverse roles played by MAs in organisations and contributes to the fact that there is a lack of common understanding of the MA profession.

Various authors have championed the reinvention of management accounting practices. For instance, Kaplan’s seminal work can be seen as a movement towards strategic management accounting (SMA) with the introduction of innovations such as activity-based costing (ABC), and in conjunction with Norton in the early 1990s, the balanced scorecard (BSC) (Otley 2001: 244–245). Since there is no agreed definition of SMA in the literature, and the term is not widely used, its meaning is not always clear to managers in organisations (Tillmann & Goddard 2008: 81). Owing to the ambiguity of the term, Langfield-Smith (2008: 205–206) suggests that SMA can be described as a strategic inclination towards the analysis and interpretation of

management accounting information and it is rather defined in terms of its techniques such as target costing, ABC and strategic performance measurement. Kim, Hatcher and Newton (2012: 7) go even further in stating that the role of MAs will in future not be limited to 'decision influencer' but be elevated to 'decision maker' instead.

Currently MAs "seem confused about who or what they are or what the field of management accounting is or should be about" (Böer 2000: 324). According to CIMA's website (2013), management accounting "combines accounting, finance and management with the leading edge techniques needed to drive successful businesses". Hence CMAs, *inter alia*, advise managers about the financial implications of projects, formulate business strategy, explain the financial consequences of business decisions and monitor financial spending and financial control. CMAs therefore need to be competent in accounting, management and strategy and be able to create value, enable value, preserve value and report value (Fontaine 2012: 22). Research on management accounting practice has been fairly diverse and, as indicated in the following paragraphs, includes studies conducted on the characteristics and skills required of individual MAs, the role of individual MAs and the position and authority of the departmental management accounting function in the organisation.

With regard to the characteristics required of individual MAs, it is imperative to attract individuals who are creative, imaginative and analytical problem solvers (Tan, Fowler & Hawkes 2004: 55; Wessels & Steenkamp 2009: 129). By conducting a cross-sectional field study among financial managers, Byrne and Pierce (2007: 480) established that business knowledge, open mindedness, interpersonal and communication skills were deemed very important characteristics for MAs. In a CIMA-centred survey among employers of MAs and students actively pursuing a management accounting career, Hassall, Joyce, Montano and Anes (2003: 82) addressed the perceptions of both students and employers on the required employability skills in becoming an MA. Although employers and students differed in prioritising the importance of the skills, the main skills categories identified in their study were communication skills; group working skills; problem-solving skills; time management; information technology; and ethical and social responsibility skills.

The reconstituted role of MAs therefore requires the recruitment of students who are not only interested in an accounting career, but also attracted to the analysis of financial information in order to be more involved in the strategic management of the organisation. In a study of qualified MAs in the UK, Burns and Yazdifar (2001) identified the ten most important tasks of management accountants during the periods 1995–2000 (period 1) and 2001–2005 (period 2). Although both periods still indicated the relevance of traditional management accounting tasks, period 2

highlighted the importance of several newer tasks, such as strategic planning and implementation, generating and creating value and implementing/designing new information systems.

From a CIMA commissioned survey, Cooper and Dart (2009: 10, 17–20) used the responses of 4 631 CIMA members to identify their perceptions of MAs' changing roles in the organisation. The respondents rated leadership, strategic financial planning and providing business advice as high, but value-based management and business partnering much lower. In turn, Byrne and Pierce (2007: 470, 492) conducted interviews with 18 financial managers (FMs) and 18 operating managers (OMs) in manufacturing firms and came to the conclusion that tension between MAs and other managers may emerge because of MAs' tighter approach to budgetary control and some MAs' lack of business knowledge. They also noted that the business partner model "lacks a common understanding between MAs and OMs", and its adoption is therefore found to be "ambiguous, conditional and uncertain" (Byrne & Pierce 2007: 469, 493). By contrast, Sorensen (2008: 1291) reflected that the role of MAs is shifting towards the upper ranks of the organisation, where they become top-level business partners. The central recurring theme when Pierce and O'Dea (2003: 278) asked managers to share their views on the future role of MAs was that of MAs becoming business partners.

Drawing on multiple case study research in global industrial organisations, Lambert and Sponem (2012: 566, 569) endeavoured to unravel the roles played by the management accounting function in organisations. Where most other research focuses on the individual characteristics of MAs, Lambert and Sponem (2012: 584) found that the overall positioning of the management accounting function in the organisation, and the authority assigned to it, broadly determine individual MAs' experiences. Their study also revealed that interaction between OMs and MAs can be controversial, and in many instances, MAs aspire to become business partners assisting OMs with decision making, while OMs regard interaction with MAs as a waste of their time, or as jeopardising their freedom.

Regarding management accounting practices in developing countries, Waweru, Hoque and Uliana (2005) investigated 52 South African firms to determine the extent to which they adopted management accounting practices advocated in the literature. Although this study suggests the use of SMA among the respondents, it also reveals that modern management accounting practices are still being used in conjunction with more traditional practices. They further established that much emphasis is placed on cost management, and that lower levels of corporate governance in developing countries necessitate a need for more control in the form of budgeting (Waweru et al. 2005: 236, 245, 249). Hence, the changing business environment

in developing countries requires MAs who can enhance the competitiveness and profitability of their organisations.

It is clear that the MA's role is evolving from the traditional cost accountant to that of decision maker, business partner, controller and strategic manager. From the various roles assigned to MAs as mentioned above, it is evident that they may engage in very diverse activities in organisations, and that there is a lack of shared understanding of management accounting as an occupation (Ahrens & Chapman (2000: 479). Although Botes (2005: 252) contended that the professional CMA qualification should be actively pursued, this study revealed that participating South African students' and Accounting teachers' awareness levels of the role and status of the management accounting profession are relatively substandard.

Research methodology

A concurrent mixed method research was conducted, acquiring quantitative and qualitative data through questionnaires and interviews respectively.

Questionnaire

A questionnaire targeting first-year accounting students at both the University of South Africa (Unisa) and the University of Pretoria (UP) investigated students' perceptions and knowledge of the changing role and status of the management accountant. In order to survey both full-time and working students, the author chose a residential as well as an open distance learning (ODL) university. A pilot study was conducted to test the content, user-friendliness and time taken to complete the questionnaire.

Soon after the registration period had closed, the self-administered questionnaire was presented to the Unisa students as a web-based Lime survey. It was sent to all students (14 522) with email addresses registered for the FAC1502 Financial Accounting module. A reminder was sent to students after two weeks. On the due date, 899 completed questionnaires had been submitted, 724 of which were considered valid. The same questionnaire was distributed to 1 000 Accounting I students at UP during their first week of enrolment. Of these questionnaires, 798 were completed and 757 of them were considered valid. A high response rate was achieved at UP, because lecturers administered the questionnaire during class time. The Unisa sample was elevated with a weight of 15.18 to ensure correct proportional presentation in the sample, correlating with the population proportions (see Table 1).

Table 1: Formula to ensure proportional sample presentation

	N	n	x,y (N/n)	x/y=z (weight)
Unisa	14 522	724	20.05801	15.1839144
UP	1 000	757	1.321004	

First-year students registered for the first semester were chosen for the quantitative survey, because they were in a position to reflect on the career guidance received before entering a tertiary educational institution. First-year Financial Accounting students were chosen, because they still had the option of enrolling for the second-year Management Accounting modules after successfully completing the first-year Financial Accounting modules.

To compile the questionnaire, the results of the literature review and the pilot study were combined with the researcher’s previous experience of school leavers’, parents’ and students’ queries related to the management accounting discipline. The statistical package IBM SPSS V20 was used to conduct the reliability testing and factor analysis of the different constructs in the questionnaire. Reliability in quantitative research encompasses the consistency of a set of measurements of a measuring instrument. The Cronbach’s alpha value was used as a measure of the reliability of the different constructs in the questionnaire (see Table 2).

Table 2: Reliability test of weighted and unweighted results

	Cronbach’s alpha	N of items
Weighted	0.908	25
Unweighted	0.890	25

From Table 2, it is evident that the Cronbach’s alpha was between 0.6 and 0.9 overall, which falls within the accepted level of reliability (Tredoux & Durrheim 2002: 216).

The first section of the questionnaire was used to determine the students’ demographic background in relation to the university (Unisa or UP) they attend, their gender, age and language of learning. In the next sections, respondents rated on a five-point Likert scale the extent to which they agreed with the given statements, ranging from strongly disagree to disagree, unsure, agree and strongly agree in order to evaluate various statements in four constructs. The constructs related to the role of MAs in organisations, the characteristics of MAs, the status of MAs in organisations and the route to follow in order to qualify as a CMA.

Interviews

Semi-structured interviews were conducted with grade 11 and 12 Accounting teachers. Based on the researcher's judgement and advice from the Senior Education Specialist for Accounting in the Tshwane South District of the Gauteng Province Department of Education, non-probability purposive sampling was used to interview a sufficient number of Accounting teachers from eight schools in the Tshwane South District. Purposive sampling looks for people who can add to the theory and who fit the criteria of desirable participants from the researcher's knowledge of the topic (Henning, Van Rensburg & Smit 2004: 71). These interviews were conducted at the schools, and knowledge about management accounting was not a prerequisite. To include different socioeconomic population groups, the sample consisted of both independent (private) schools and public schools. The public schools included former model C schools, a school in the Pretoria CBD and township schools. Two Accounting teachers per school were interviewed, with the exception of one independent school that only had one Accounting teacher, resulting in 15 interviewees. Since data saturation was achieved, these interviewees were found to be sufficient. According to De Vos Strydom, Fouché & Delpont (2005: 294), data saturation is reached when the researcher begins to hear the same information repeatedly and learns nothing new from successive interviews.

To ensure credibility, all the interviews were conducted by the primary researcher with previous interview experience. Informed consent was obtained from all the interviewees before conducting the interviews. The researcher built trust by honouring anonymity, honesty and openness during the interview. The same questions were put to all the interviewees. The respondents came from different demographic backgrounds and worked with learners from various demographic groups, which ensured transferability. The interviews were professionally transcribed, and the results were contextualised in the literature. Authenticity was ensured, because specific groups were not excluded from the project based on race, sex or any other social or financial criteria.

Permission to conduct the survey and interviews was obtained from the following institutions:

- Unisa: Director of the School for Accounting Sciences (2012), Prof. C. Cronjé, and the Unisa Senate Research and Innovation Committee (SENRIC).
- UP: Head of Department, Accounting and CA Programme Manager, Prof. J.G.I. Oberholster, and the Registrar, Prof. N.J. Grové
- Department of Education, Gauteng Province.

In order to reduce any possible ethical concerns, due regard and broad consideration underpinned this study, and the principles of respect for persons, justice, beneficence and non-maleficence as stipulated by the Belmont Report and the Declaration of Helsinki (Visagie 2012: 9) prevailed during the planning and research design of the study, as well as during the design of the questionnaire and interview schedule. Ethical clearance was obtained from Unisa's College of Economic and Management Sciences Ethics Committee and SENRIC.

Results and discussion

The results are presented under two main headings, namely the questionnaire results and the interview results. The descriptive results from the questionnaire include a discussion of the socio-demographic profile of the participating students, followed by the inferential results.

Questionnaire results

The questionnaire results are based on the fact that the Unisa sample was elevated to the weight depicted in Table 1.

Descriptive results

The demographics of both the Unisa and UP students who participated in the survey are shown in Table 3.

Table 3 shows that more females than males participated in the survey, and that an overwhelming percentage of respondents indicated their language of learning as English. Although 43.2% of the respondents were between 17 and 25 years of age, Table 3 indicates that 56.8% were older than 25 years, which could mean that they were working while studying. While 39.8% of the respondents indicated that they had planned to study BCom/BCompt Management Accounting/Financial Management (see Table 3), only 10.0% of the respondents indicated that they had received career guidance on how to qualify as a CMA.

Exploratory factor analysis (EFA) was performed to test the validity of all the constructs in the questionnaire. The Kaiser-Meyer-Olkin (KMO) value was 0.933, which exceeded the recommended minimum value of 0.6 (Kaiser 1970, 1974), and Bartlett's test of sphericity (Bartlett 1954) achieved statistical significance of $p < .001$ (see Table 4). The total variance explained by the components was 60.626% (see Table 5). These values supported the factorability of the correlation matrix.

Table 3: The demographics of participating students

	Valid percentage
Gender	
Female	58.9
Male	41.1
Total	100.0
Language of learning	
English	92.4
Afrikaans	6.9
African language	0.7
Other	0.0
Total	100.0
Age	
17–25	43.2
26–30	21.3
31–35	16.5
Older than 35	19.0
Total	100.0
Planned academic qualification	
BCompt/BCom (Accounting)	31.5
BCompt/BCom (Management Accounting/ Financial Management)	39.8
BCom (General)	23.0
Other	5.8
Total	100.0

Table 4: KMO and Bartlett's test

Kaiser-Meyer-Olkin measure of sampling adequacy	.933
Approx chi-square	82 731.599
Bartlett's test of sphericity: Df	171
Sig	.000

Table 5: Total variance explained

Component	Initial eigenvalues			Extraction sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	6.994	36.811	36.811	6.994	36.811	36.811
2	1.298	6.832	43.642	1.298	6.832	43.642
3	1.184	6.229	49.872	1.184	6.229	49.872
4	1.042	5.484	55.356	1.042	5.484	55.356
5	1.001	5.270	60.626	1.001	5.270	60.626

Extraction method: Principal component analysis

Table 6 shows how students rated the extent to which they agreed with the statements in the construct relating to the role of MAs in organisations.

Table 6: Rating of statements on the role of MAs in organisations

Questionnaire statements	Strongly disagree		Disagree		Unsure		Agree		Strongly agree	
	N	%	N	%	N	%	N	%	N	%
MAs are working increasingly in more direct management decision roles	201	1.7	238	2.0	3245	27.6	5715	48.6	2351	20.0
MAs operate as both financial and strategic managers	139	1.2	256	2.2	2226	18.9	6566	55.9	2562	21.8
MAs' role shift is from financial information provider to management advisor	169	1.4	405	3.4	3738	31.8	5615	47.8	1819	15.5
The role of MAs differs vastly from that of financial accountants	216	1.8	1725	14.7	5016	42.7	3663	31.2	1123	9.6
MAs design and maintain management information systems	251	2.1	1149	9.8	4773	40.6	4283	36.5	1288	11.0
MAs drive strong business performance	202	1.7	321	2.7	2397	20.4	5894	50.2	2934	25.0

Although 68.6% of the students agreed (see Table 6) that MAs are working increasingly in more direct management decision roles, 27.6% were unsure about it. A majority of 77.7% agreed that MAs operate as both financial and strategic managers, which is closely aligned with the 75.2% of the students who agreed that MAs drive strong business performance. Only 40.8% of the students agreed that the

role of MAs differs vastly from that of financial accountants. However, 63.3% agreed that MAs' role shift is from financial information provider to management advisor. The finding that only 47.5% of the students agreed that MAs design and maintain management information systems should be compared with the fact that this role was rated among the top ten tasks expected to be vitally important for management accountants in the new millennium (Burns & Yazdifar 2001). The high percentage of unsure ratings against most of the statements, as shown in Table 4, indicated a great deal of uncertainty about the role of MAs in organisations.

A strong association was found between the ratings of the six statements in the construct on the characteristics of MAs (see Table 7).

Table 7: Rating of statements on the characteristics of MAs

Questionnaire statements	Strongly disagree		Disagree		Unsure		Agree		Strongly agree	
	N	%	N	%	N	%	N	%	N	%
MAs must be able to integrate financial and non-financial information	155	1.3	165	1.4	1 643	14.0	6 549	55.7	3 236	27.5
MAs need to be people oriented and possess good communication skills	184	1.6	447	3.8	1 147	9.8	5 850	49.8	4 120	35.1
MAs must possess broad business knowledge	140	1.2	119	1.0	1 070	9.1	5 922	50.4	4 494	38.3
MAs must acquire information technology (IT) and information systems (IS) knowledge	214	1.8	653	5.6	2 877	24.5	5 287	45.0	2 719	23.1
MAs must be able to translate numbers to strategies	137	1.2	145	1.2	1 195	10.2	5 765	49.1	4 509	38.4
MAs must have the ability to analyse and interpret both financial and non-financial information	185	1.6	99	0.8	1 133	9.6	5 525	47.0	4 808	40.9

From Table 7, it is evident that the majority of students agreed that MAs must be able to integrate financial and non-financial information (83.2%) and need to be people oriented and possess good communication skills (84.9%). A high percentage also agreed that MAs possess broad business knowledge (88.7%) and are able to translate numbers to strategies (87.5%). Respondents further agreed that MAs have the ability to analyse and interpret both financial and non-financial information (87.9%). This is in accordance with the characteristics deemed very important for MAs, as identified by interviewees in Byrne and Pierce's (2007: 480) study, namely business knowledge, interpersonal and communication skills. Although 68.1% of students agreed that MAs must acquire information technology (IT) and information systems (IS) knowledge, many students (24.5%) were unsure about this. By contrast, various

studies attest that MAs should have a sound knowledge of IT and IS, and that there is an under-preparation gap in teaching IS design to prospective MAs (Pierce & O’Dea 2003: 287; Sorensen 2008: 1282). Böer (2000: 325) contends that the change in management accounting will be driven by technology, and that MAs will have to use their knowledge of data collection and information systems to assist managers in analysing information.

Table 8 indicates the perceptions of respondents on the status of MAs in organisations.

Table 8: Rating of statements on the status of MAs in organisations

Questionnaire statements	Strongly disagree		Disagree		Unsure		Agree		Strongly agree	
	N	%	N	%	N	%	N	%	N	%
The CA qualification is perceived to be superior to the CMA qualification	399	3.4	939	8.0	4 698	40.0	3 634	30.9	2080	17.7
MAs operate as leaders in organisations because of their positive image	185	1.6	835	7.1	4 197	35.7	5 363	45.6	1 169	9.9
MAs can become Chartered Global Management Accountants (CGMA) and enjoy international recognition	108	0.9	89	0.8	5 261	44.8	4 324	36.8	1 967	16.7
CMAs have a professional identity	154	1.3	261	2.2	2 682	22.8	6 115	52.0	2 538	21.6
CMAs’ remuneration compares favourably with the remuneration of other accounting professionals	130	1.1	597	5.1	6 087	51.8	3 848	32.7	1 088	9.3
MAs have the potential to become part of the executive management	106	0.9	86	0.7	2 230	19.0	6 561	55.8	2 767	23.6
MAs are not regarded as narrow-focused number crunchers	269	2.3	784	6.7	4 538	38.6	4 717	40.2	1 439	12.2

While 48.6% of the respondents agreed that the CA qualification is perceived to be superior to the CMA qualification, 40.0% of them were unsure (see Table 8). Although 73.6% of respondents agreed that CMAs have a professional identity, only 53.5% agreed that they can become CGMAs and enjoy international recognition. Although Table 8 shows that only 55.5% of students agreed that MAs operate as leaders in organisations on account of their positive image, a much higher percentage (79.4%) agreed that MAs have the potential to become part of the executive management.

Notably, only 42.0% agreed that CMAs' remuneration compares favourably with that of other accounting professionals, and 51.8% were unsure. In contrast to research on the status of MAs, which found that they are perceived to understand "business and people beyond numbers" (Kim et al. 2012: 7), only 52.4% of respondents agreed that MAs are not regarded as narrow-focused number crunchers.

Inferential results

A Pearson chi-square test was conducted to examine whether there was a relationship and independence of association between the socio-demographic results and the ratings of the constructs on the role of MAs in organisations, their characteristics and status. Only the results with a significant relationship ($p < 0.05$) prior to and after the weighting of the data are discussed in Tables 9, 10 and 11. No relationship was found between students' gender and any of the statements in the three constructs.

Table 9: Pearson chi-square test on the role of MAs in organisations

Relationship between questionnaire statements and socio-demographic variables	Value	df	Asymp sig (2-sided)
1. 'MAs' role shift is from financial information provider to management advisor' versus 'planned academic qualification'	135.366 ^a	12	0.000
2. 'MAs' role shift is from financial information provider to management advisor' versus 'age'	413.774 ^b	6	0.000
3. 'The role of MAs differs vastly from that of financial accountants' versus 'planned academic qualification'	220.703 ^c	6	0.000
4. 'The role of MAs differs vastly from that of financial accountants' versus 'language of learning'	142.265 ^d	6	0.000
5. 'MAs design and maintain management information systems' versus 'institution'	53.599 ^e	2	0.000

a. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 6.18.

b. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 95.06.

c. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 75.64.

d. 3 cells (25.0%) have an expected count of less than 5. The minimum expected count is 0.16.

e. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 89.53.

From the first association shown in Table 9, there was a relationship between the percentage of students who agreed that MAs' role shift is from information provider to management advisor, and those who planned to study BCompt/BCom (Accounting) (65.6%), BCompt/BCom (Management Accounting/Financial Management) (64.8%) and BCom (General) (66.4%). The percentage of those who agreed with the same statement and those who planned to study something other than those qualifications already mentioned was only 46.2%. With respect to age, 54.5% of those aged between 17 and 25 years, 63.4% of those between 26 and 30 and 71.9% of those

between 31 and 35 agreed that MAs' role shift is from that of financial information provider to management advisor. Of the respondents who were older than 35, a high percentage (75.5%) agreed that MAs' role shift is from that of financial information provider to management advisor. Notably, more students who were older and probably had working experience and organisational exposure agreed with this statement.

It is worrisome that only 43.2% of those who planned to study BCom/BCompt (Accounting) and 45.8% of those who planned to study BCompt/BCom (Management Accounting/Financial Management) agreed that the role of MAs differs vastly from that of financial accountants (see the third association in Table 9). In the language of learning, 41.7% of English, 32.6% of Afrikaans and 22.6% of African language students agreed that these roles differ vastly. According to the last association in Table 9, only 38.2% of those who study at UP, compared with 48.1% of those who study at Unisa, agreed that MAs design and maintain management information systems. The difference could be due to the fact that more Unisa students are working and have already been exposed to the role of MAs in organisations.

Only associations pertaining to the statements with the lowest agreed percentage regarding the characteristics of MAs (see Table 7) are discussed in Table 10. As with gender, no relationship was found between the language of learning and the statement 'MAs must acquire IT and IS knowledge'.

Table 10: Pearson chi-square test on the characteristics of MAs

Relationship between questionnaire statements and socio-demographic variables	Value	df	Asymp sig (2-sided)
1. 'MAs must acquire IT and IS knowledge' versus 'planned academic qualification'	39.917 ^a	6	0.000
2. 'MAs must acquire IT and IS knowledge' versus 'institution'	39.369 ^b	2	0.000
3. 'MAs must acquire IT and IS knowledge' versus 'age'	233.937 ^c	6	0.000

a. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 31.70.

b. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 55.72.

c. 0 cells (0.0%) have an expected count less than 5. The minimum expected count is 143.29.

Of those who agreed that MAs must acquire IT and IS knowledge, 31.5% planned to study BCompt/BCom (Accounting), 39.8% BCompt/BCom (Management Accounting/Financial Management), 23.0% BCom (General) and 5.8% other qualifications. With respect to the institution, 68.5% of those who study at Unisa and 62.8% of those who study at UP agreed that MAs must acquire IT and IS knowledge. Notably, 64.0% of those aged between 17 and 25 years, 64.7% of those between 26 and 30 and 73.4% of those between 31 and 35 agreed that MAs must acquire IT and IS knowledge. A higher percentage (76.9%) of those who were older than 35 agreed

that MAs must acquire IT and IS knowledge, indicating that those with working experience are more inclined to agree with this statement.

In the construct on the status of MAs in organisations, the lowest agreed percentage (42.0%) referred to the statement: 'CMAs' remuneration compares favourably with that of other accounting professionals'. This statement also had a 51.8% unsure rating (see Table 8). No relationship was found between this statement and the planned academic qualification or students' gender. With respect to the statement on remuneration, Table 11 depicts the statements with significant relationships with any of the socio-demographic variables. A significant relationship was found between the statement, 'The CA qualification is perceived to be superior to the CMA qualification', and the students' planned academic qualification (see Table 11).

Table 11: Pearson chi-square test on the status of MAs in organisations

Relationship between questionnaire statements and socio-demographic variables	Value	df	Asymp sig (2-sided)
1. 'CMAs' remuneration compares favourably with that of other accounting professionals' versus 'institution'	16.056 ^a	2	0.000
2. 'CMAs' remuneration compares favourably with that of other accounting professionals' versus 'language of learning'	105.455 ^b	6	0.000
3. 'The CA qualification is perceived to be superior to the CMA qualification' versus 'planned academic qualification'	225.693 ^c	6	0.000

a. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 46.84.

b. 3 cells (25.0%) have an expected count of less than 5. The minimum expected count is 0.06.

c. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 43.11.

With respect to the first association in Table 11, only 42.3% of the Unisa students and 38.2% of the UP students agreed that CMAs' remuneration compares favourably with that of other accounting professionals. Notably, more African language students (58.3%) than English students (42.7%) or Afrikaans students (31.5%) agreed that CMAs' remuneration compares favourably with that of other accounting professionals. This clearly indicates that students still think that other accounting professionals, for instance those in the CA profession, earn more than CMAs. As expected, more students who plan to study BCompt/BCom (Accounting) (62.3%) than those who plan to study BCompt/BCom (Management Accounting/Financial Management) (46.9%), BCom (General) (42.9%) and other qualifications (51.4%) agreed that the CA qualification is superior to the CMA qualification. This means that most students adopted this view while still at school and entered tertiary education with this preconceived idea.

Interview results

The interview findings are presented around two interview questions. The first is associated with the interviewees' perception of the difference between the work done by financial accountants and that done by management accountants. The second, an open-ended question, focused on the interviewees' own ideas of management accounting or management accountants in general. These questions were put to the Accounting teachers to determine their knowledge of the role of the management accountant in organisations. The results are presented in the following subsections.

1. What do you think the difference is between the work done by financial accountants and that done by management accountants?

In general, the interviewees were of the opinion that financial accountants do the books and compile the financial statements of an organisation. They mostly agreed that financial accountants deal with the recording of transactions and the compiling of financial statements. Some interviewees contended that financial accountants audit the books of the organisation, while others said that they are the ones who acquire the organisation's funds. In general, most participants had a fairly good idea of the role of the financial accountant in an organisation.

However, the interviewees had varying opinions on the work done by MAs, for instance that MAs are involved in the internal control and the correct procedures to be followed in the preparation of financial information. Some did mention that MAs are responsible for preparing budgets and doing cost accounting analysis.

A few interviewees did say that MAs are involved in decision making, and one even stated that they "oversee the different financial accountants". Some participants did mention that MAs are involved in the risk management process. Only one interviewee pointed out that MAs manage information systems and put systems in place "to have some kind of information". Although some interviewees had an idea of the difference between the work done by financial accountants as opposed to that done by MAs, the majority of interviewees were not able to properly distinguish between the two. One interviewee bluntly stated that she had no idea what a management accountant is.

2. What ideas do you have on the management accounting topic or on management accountants?

This open-ended question allowed for a broad response from interviewees. Although most interviewees were of the opinion that management accounting is important, they indicated that they did not know enough about the role of MAs to properly

inform learners about it. Some of the participants mentioned that topics such as manufacturing, budgets, ethics and controls are now included in the school syllabus and that learners experience these positively. One interviewee asserted that the learners love the manufacturing topic, because they can relate to it, and it is more practical than the financial sections on debtors and creditors.

Two participants even mentioned that accounting should be taught from grade 8 instead of being part of the economic and management sciences (EMS) subject, where too little time is spent on accounting and management accounting. One interviewee also pointed out that management accounting is an unknown field for some teachers, because they do not have an audit background. This presumably relates to the control and ethics part of the new syllabus, which is perceived to be part of auditing.

One interviewee mentioned that 20% of the matric examination now assesses what is referred to as 'management accounting' and that the learners refer to it as 'theory'. Another participant said that this part of the syllabus require learners to think more broadly than only about bookkeeping aspects, and they have to interpret situations and also take, for instance, the risks and ethical consequences into account. She contended that teachers should be better prepared to teach this part of the syllabus. To conclude, in order to inform learners of the various roles of MAs and the career prospects in the management accounting field, most of the participants expressed the need to be better informed.

Conclusions, recommendations and limitations

In assessing the changing role of MAs in organisations, it should be borne in mind that change is ongoing, and in Scapens' (2006: 21) words, "management accounting change has to be seen as a complex ongoing evolutionary process". From the literature survey, it is evident that in order to shape their professional identity and realise their full potential, MAs should not only retain their technical financial knowledge, but should also be integrated into the management team and exercise their leadership potential. A paradigm shift towards a professional career as a management accountant (CMA) is only possible if those who study towards becoming MAs are fully aware of MAs' evolving roles and responsibilities in organisations.

The findings from both the questionnaire and the interviews indicated that participating students and Accounting teachers are unsure about the role and status of management accountants in organisations. An aspect that was underscored by most of the participants was MAs' role in designing and maintaining information systems. While the literature (Böer 2000; Burns & Yazdifar 2001; Pierce & O'Dea 2003) shows that this aspect is very important, many students were even unsure that

MAs should have a sound knowledge of IT and IS. Another interesting result was that most students do not think that MAs' remuneration compares favourably with that of other accounting professionals. The inferential results also showed that older students, who most probably have work experience, were better informed about MAs' role shift from information provider to management advisor, and that MAs must acquire IT and IS knowledge.

In order to attract students with the qualities needed to become an MA, ways should be found to inform school leavers, career counsellors and Accounting teachers of the characteristics, status and career opportunities of management accountants. It is therefore recommended that secondary and tertiary educators promote the professional identity and status of MAs and provide a clear pathway for students on how to qualify as CMAs. Tertiary educators, in conjunction with professional bodies, for instance CIMA, could compile brochures to inform school leavers or first-year accounting students of the role and status of MAs in organisations. Accounting teachers, career guidance teachers and prospective Accounting teachers could be invited to discussion forums at which the differences between financial accountants and MAs could be explained, as well as the various roles of MAs in organisations. Management accounting lecturers could, as part of their community engagement responsibilities, visit schools, especially those who do not have career guidance teachers to introduce the CMA profession.

It is suggested that tertiary institutions review their current management accounting curriculum to encompass the demands of new forms of competitiveness in organisations and the latest information technologies. Contrary to the perceptions of students in this study, greater emphasis should be placed in the curriculum on the integration of information systems in producing valuable information for decision making purposes. MA training should be done in collaboration with the wider business community to ensure that potential MAs will be able to become business partners in the full sense of the word.

Further research could be conducted to establish the perceptions of managing directors, chief executives and financial directors of companies and/or small and medium enterprises of the role that Management Accounting graduates can play in their company, and their perceptions of the CMA designation.

The main limitation of the study was arguably the fact that the sample consisted of students from only two South African universities. Since only first-year Accounting students participated in the survey, and only Accounting teachers in the Tshwane South District were interviewed, the results of this study cannot be used to make generalised assumptions about all Accounting students and all Accounting teachers in the country. However, the data gathered from the survey and interviews provide

insight into students from diverse socio-demographic backgrounds in a residential and open distance learning institution, as well as teachers from diverse private and public schools.

References

- Ahrens, T. & Chapman, C.S. 2000. 'Occupational identity of management accountants in Britain and Germany', *European Accounting Review*, 9(4): 477–498.
- Barac, K. 2009. 'Management accounting and financial management knowledge requirements for South African entry-level trainee accountants', *South African Journal of Accounting Research*, 23(1): 87–111.
- Bartlett, M.S. 1954. 'A note on the multiplying factors for various chi square approximations', *Journal of the Royal Statistical Society*, 16 (series B): 296–298.
- Böer, G.B. 2000. 'Management accounting education, yesterday, today and tomorrow', *Issues in Accounting Education*, 15(2): 313–335.
- Botes, V. 2005. The perception of the skills required and displayed by management accountants to meet future challenges. DCom thesis, University of South Africa, Pretoria.
- Burns, J., Hopper, T. & Yazdifar, H. 2004. 'Management accounting education and training: putting management in and taking accounting out', *Qualitative Research in Accounting and Management*, 1(1): 1–29.
- Burns, J. & Yazdifar, H. 2001. 'Trick or treat', *Financial Management*, March: 14–16.
- Byrne, S. & Pierce, B. 2007. 'Towards a more comprehensive understanding of the roles of management accountants', *European Accounting Review*, 16(3): 469–498.
- CIMA (Chartered Institute of Management Accountants). 2011. *How Management Accounting Drives Sustainable Success*. London: CIMA.
- CIMA (Chartered Institute of Management Accountants). 2013. What is management accounting? [Online]. Available at: <http://www.cimaglobal.com/About-us/What-is-management-accounting/>. Accessed: 1 February 2013.
- Cooper, P. & Dart, E. 2009. *Change in the Management Accountant's Role: Drivers and Diversity*. Working Paper Series, School of Management, University of Bath.
- De Vos, A.S., Strydom, H., Fouché, C.B. & Delpont, C.S.L. 2005. *Research at Grass Roots for the Social Sciences and Human Service Professions* (3rd edition). Pretoria: Van Schaik.
- Ferreira, A. & Santoso, A. 2008. 'Do students' perceptions matter? A study of the effect of students' perceptions on academic performance', *Accounting and Finance*, 48: 209–231.
- Fleischman, R.K. & Parker, L.D. 1991. 'British entrepreneurs and pre-industrial revolution evidence of cost management', *Accounting Review*, 66(2): 361–375.
- Fleischman, R. & Tyson, T. 2006. 'The history of management accounting in the US', In Chapman, C.S., Hopwood, A.G. & Shields, M.D. (Eds), *Handbook of Management Accounting Research* (Vol. 2). Amsterdam: Elsevier.

- Fleming, P.D. 2005. 'The future has never looked brighter', *Journal of Accountancy*, 200(5): 66–70.
- Fontaine, R. 2012. 'The CMA competency map simplified: understanding the CMA framework', *CMA Magazine*, March/April: 21–25.
- Gupta, K.M. & Gunasekaran, A. 2005. 'Costing in the new environment', *Managerial Accounting Journal*, 20(4): 337–353.
- Hassall, T., Joyce, J., Montano, J.L.A. & Anes, J.A.D. 2003. 'The vocational skills gap for management accountants the stakeholders' perspectives', *Innovations in Education and Teaching International*, 40(1): 78–88.
- Henning, E., Van Rensburg, W. & Smit, B. 2004. *Finding Your Way in Qualitative Research*. Pretoria: Van Schaik.
- Horngren, C.T. 2004. 'Management accounting: some comments', *Journal of Management Accounting Research*, 16: 207–211.
- Hunt, S.C., Anthony, F.A. & Intrieri, R.C. 2004. 'The nature and origins of students' perceptions of accountants', *Journal of Education for Business*, 79(3): 142–149.
- Kaiser, H. 1970. 'A second generation Little Jiffy', *Psychometrika*, 35: 401–415.
- Kaiser, H. 1974. 'An index of factorial simplicity', *Psychometrika*, 39: 31–36.
- Kim, J., Hatcher, C. & Newton, C. 2012. 'Professional identity of management accountants: leadership in changing environments', *Research Executive Summary Series*, 8(1). London: CIMA.
- Lambert, C. & Sponem, S. 2012. 'Roles, authority and involvement of the management accounting function: a multiple case-study perspective', *European Accounting Review*, 21(3): 565–589.
- Langfield-Smith, K. 2008. 'Strategic management accounting: how far have we come in 25 years?', *Accounting, Auditing and Accountability Journal*, 21(2): 204–228.
- Otley, D. 2001. 'Extending the boundaries of management accounting research: developing systems for performance management', *British Accounting Review*, 33: 243–261.
- Parker, L.D. 2002. Reinventing the management accountant. Transcript of CIMA address delivered at Glasgow University, 15 March.
- Pierce, B. & O'Dea, T. 2003. 'Management accounting information and the needs of managers. Perceptions of managers and accountants compared', *British Accounting Review*, 35: 257–290.
- Scapens, R.W. 2006. 'Understanding management accounting practices: a personal journey', *British Accounting Review*, 38: 1–30.
- Sorensen, J.E. 2008. 'Management accountants in the United States: practitioner and academic views of recent development', In Chapman, C.S., Hopwood, A.G. & Shields, M.D. (Eds), *Handbook of Management Accounting Research* (Vol. 3). Amsterdam: Elsevier.
- SAICA (South African Institute of Chartered Accountants). 2006. Training outside public practice, technical and professional skills requirements. Available at: www.

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- INTEGRITAS-#115860-v1-TOPP_Core_Experience_Requirements_-Feb_2007.Doc.
Accessed: 3 November 2007.
- Tan, L.M., Fowler, M.B. & Hawkes, L. 2004. 'Management accounting curricula: striking a balance between the views of educators and practitioners', *Accounting Education*, 13(1): 51–67.
- Tillmann, K. & Goddard, A. 2008. 'Strategic management accounting and sense-making in a multinational company', *Management Accounting Research*, 19: 80–102.
- Tredoux, C. & Durrheim, K. 2002. *Numbers, Hypotheses and Conclusions: a Course in Statistics for the Social Sciences*. Cape Town: UCT Press.
- Visagie, R. 2012. An ethics of accountability within a qualitative framework. Presentation at the University of South Africa, 28 September.
- Wadee, N. 2010. 'CA(SA) designation outshines its rivals', *Accountancy SA*, June: 6.
- Wessels, P.L. & Steenkamp, L.P. 2009. An investigation into students' perceptions of accountants. *Meditari Accounting Research*, 17(1): 117–132.
- Waweru, N.M., Hoque, Z. & Uliana, E. 2004. 'Management accounting change in South Africa', *Accounting, Auditing and Accountability Journal*, 11(5): 675–704.
- Waweru, N.M., Hoque, Z. & Uliana, E. 2005. 'A survey of management accounting practices in South Africa', *International Journal of Accounting, Auditing and Performance Evaluation*, 2(3): 226–263.