

Chapter 5

Results

The whole of this chapter will cover the results of the questionnaire, which will be discussed in the same order as that of the questions in the questionnaire (refer to Appendix 2, page 181), starting with question 1 on the age of the respondents.

5.1 Age of the respondents

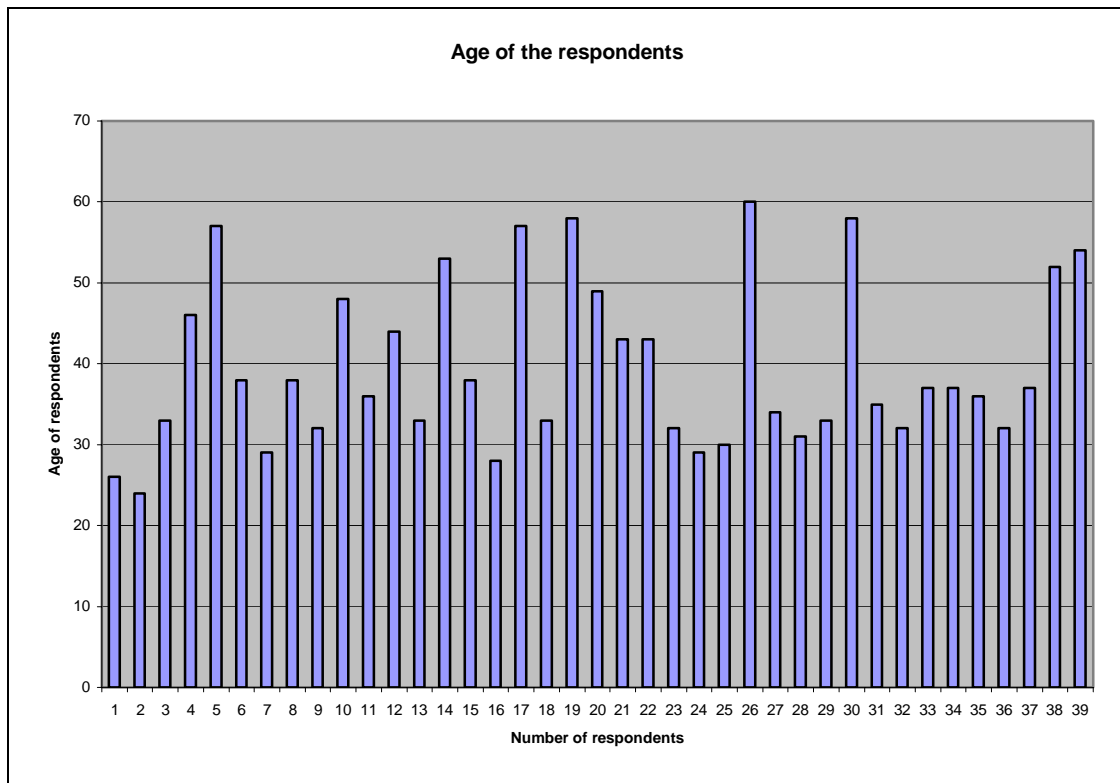
The average age of the respondents was 38 years, with the oldest respondent being 60 years old and the youngest one being 24 years old. This implies that the majority of respondents who studied full-time and started their studies directly after finishing school would have been at a university from 1984 to 1986 or 1987, depending on whether or not they did honours full-time. From 1987 onwards the first full-time Management Accounting honours courses started at those universities which were accredited to the Chartered Institute for Management Accountants (CIMA) in London. Up to 1987 students had had to study through the institute in London in order to qualify as chartered management accountants. Until then, Management Accounting had been included as a subject in either a B.Comm or a B.Accounting degree. No particular attention at South African universities was given to a student who wanted to become a management accountant. The first professional management accountants who had studied full-time at a South African university could qualify in 1987. Those qualified students could then register at the Chartered Institute for Management

Accountants in London to start their practical experience, which normally takes at least three years to complete.

25% (22% UNISA and 3% Damelin College) of the respondents had studied through correspondence institutions, which makes it difficult to evaluate their management accounting education and its relevance to the jobs which they are performing currently. Their studies could have been done directly after leaving school or at a later stage when they found it necessary for performing their job efficiently.

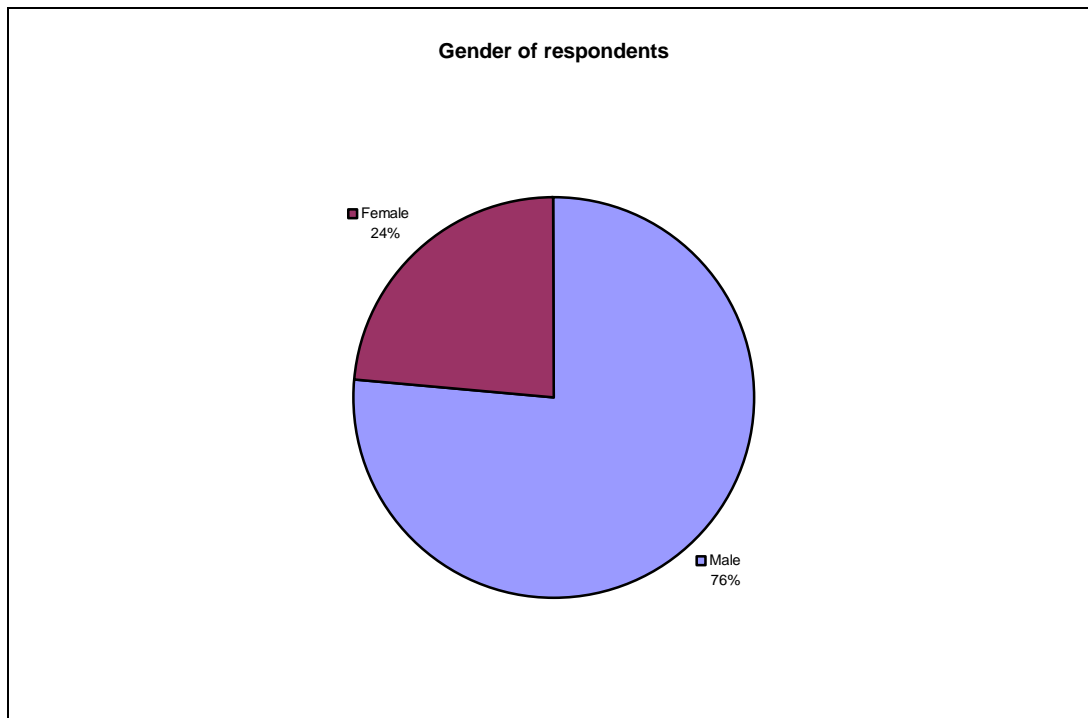
In general, the age of the respondents should give an indication of when management accounting studies were completed. The older the respondents, the more they will tend to perceive a gap between their education and the expectations of the business environment in which they are performing their jobs. The younger respondents, who may have studied recently, will tend to experience a smaller gap between their management accounting education and their job expectations. This is important for the research problem, which concerns, inter alia, the question whether there is a need to change the contents or the approach of management accounting education at South African academic institutions.

The average age of 38 years (refer to first sentence of section 5.1), with a standard deviation of 11, is a good distribution with no bias given by too many older or younger respondents included in the sample. Refer to the graph on the next page for the distribution of the respondents' age.



5.2 Gender

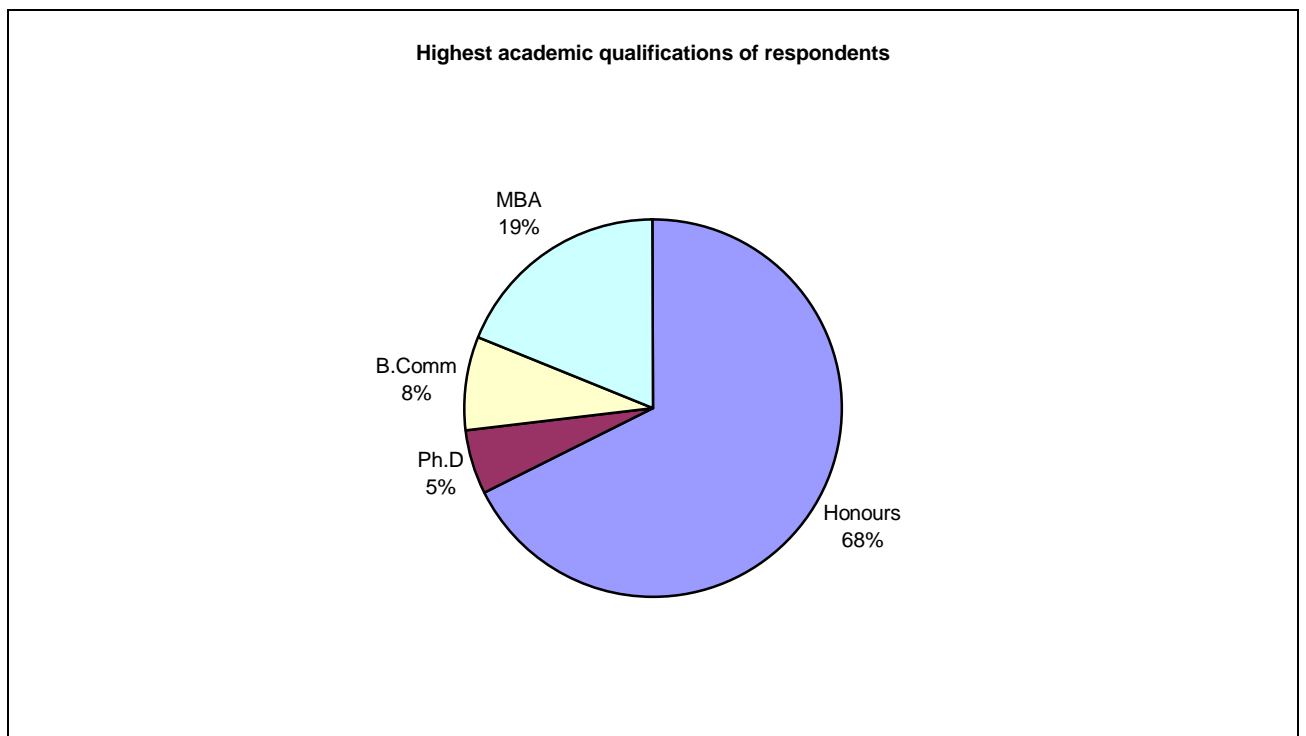
76% of the respondents were male and 24% were female. This gives an indication that males, as included in the sample, occupy most of the top positions in the top South African companies. This information is not relevant for the research problem and was only included in the questionnaire in order to cover all aspects. However, it is good news to see that females do occupy 24% of top positions in the financial sector, which has until recently been regarded as a completely male-dominated environment. Refer to the pie chart on the following page for the gender distribution of the respondents.



5.3 Academic qualifications

68% of the respondents have obtained an honours degree, 5% a Ph.D. degree, 8% a B.Comm degree and 19% a master's degree (refer to the pie chart at the end of this section). Only three of the respondents indicated that they had no academic qualifications, which means that they are performing their jobs on experience gained over the years. The fact that 8% of the respondents have a bachelor's degree only implies that such respondents do not have professional qualifications, because to obtain a professional qualification in the financial environment they should at least have an honours degree. All of the masters' degrees were Masters in Business Administration (MBA) degrees, which equip students with a broader view of business and during the course of which practical case studies are incorporated in most of the subjects studied. This is important information, because it means that those respondents saw the MBA degree as an option to broaden their business knowledge

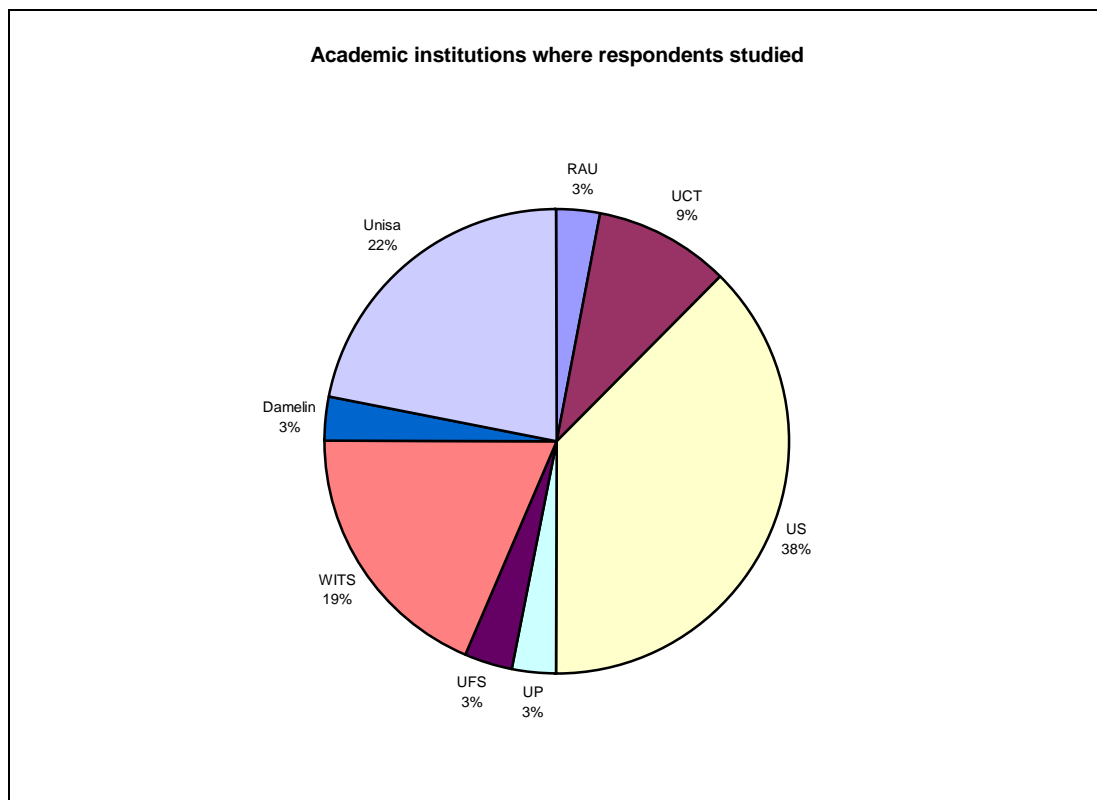
and to get more practical exposure in order to perform their jobs better or to qualify them for a specific promotion. This is also important for the research problem, because it gives an indication that those respondents felt that they needed more education to be able to perform their jobs efficiently. If this is the case, it means that the contents or approach of management accounting education should be adjusted.



5.4 Academic institutions

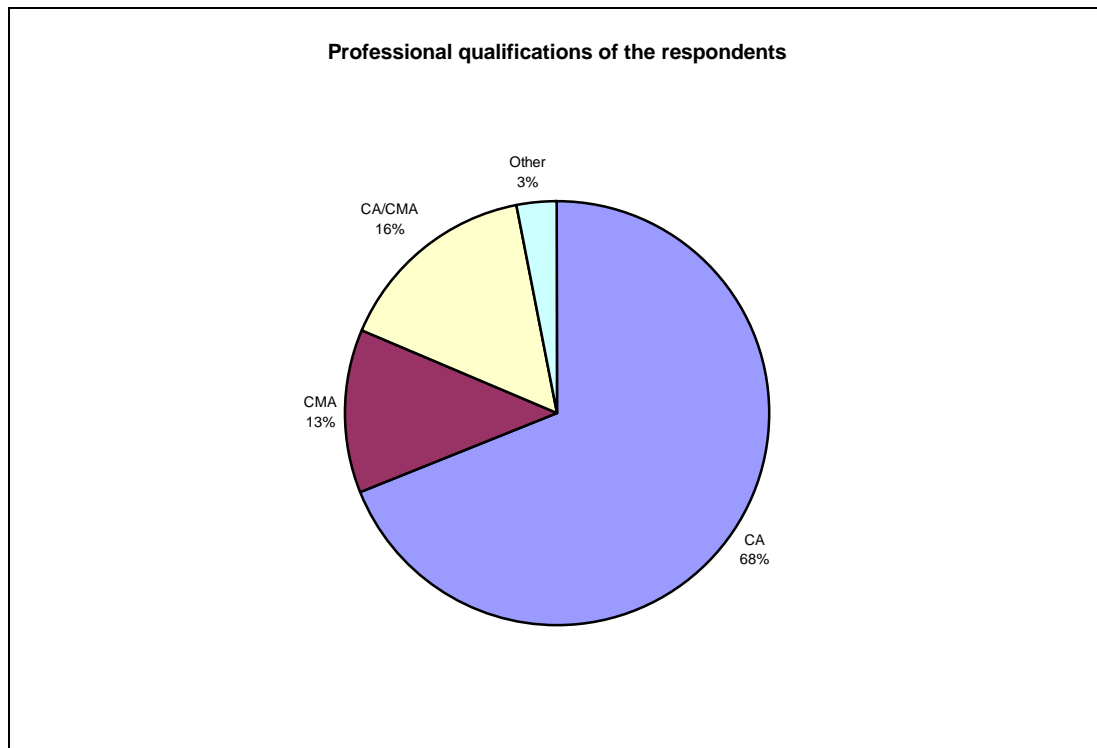
38% of the respondents graduated at the University of Stellenbosch. 22% of the respondents studied at UNISA and 19% at Wits University. 9% of the respondents studied at the University of Cape Town and the rest of the respondents studied at the Rand Afrikaans University, the University of Pretoria, the University of the Free State and Damelin College (refer to the pie chart at the end of this section). All these universities are obliged to do the SAICA and CIMA syllabi if they train chartered

accountants or management accountants, which is the target group for the research problem. This means that if any changes are recommended it should be incorporated into both bodies' syllabi and therefore at all of the named universities. Damelin College is an independent academic institution with nationally accredited programmes, but does not necessarily have the same education as universities. Colleges focus on a different target market, but as only one of the respondents had studied at Damelin College it will not affect the outcome of the study in a substantial way.



5.5 Professional qualifications

The pie chart following this section demonstrates that 82% of the respondents had obtained a professional qualification and 18% had no professional qualification. Of those professionally qualified, 68% were chartered accountants, 13% were chartered management accountants and 16% were both chartered accountants and management accountants. 3% had other professional qualifications.



Possible reasons for the relatively high percentage of chartered accountants included in the sample could be one or more of the following:

- * Financial directors of top companies must be highly skilled people. The qualification is rated as a top qualification in the financial environment and therefore an obvious choice for students leaving school without exactly knowing what they want to study, given that they satisfy the conditions for the course.
- * The qualification has been well marketed and administered throughout the last 40 years, which means that a large number of people are aware of the capabilities of an employee qualified as a chartered accountant.
- * It is, in contrast with the chartered management accountant qualification, a South African qualification, which makes it more accessible to South Africans. This also makes it cheaper for South African students, because there is no exchange rate applicable for the payment of examinations or registration fees at the professional body (SAICA).
- * Students also believe that the qualification is one where your chances of being unemployed will be less than with other, more general financial qualifications.
- * Generally capable chartered accountants earn a good remuneration which makes it an attractive option with students.

Respondents' professional qualifications are important for the resolving of the research problem as it gives an indication of the disciplines where the recommended changes should be implemented.

5.6 Job description

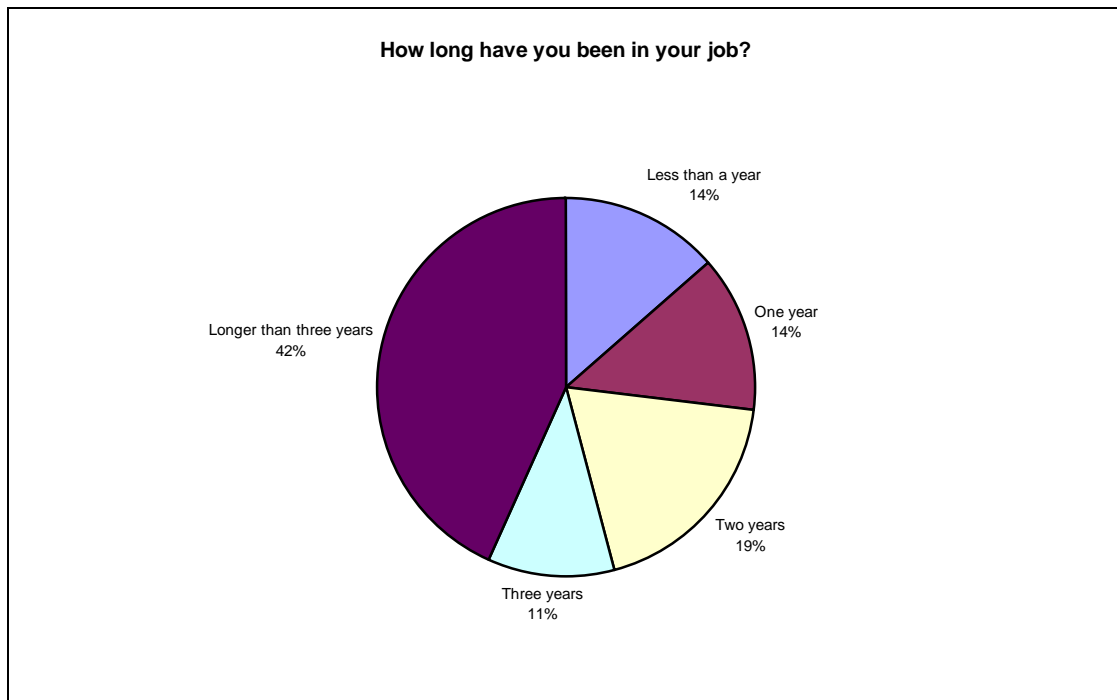
Job descriptions varied a lot and comprised the following:

- * chief *financial* officer
- * *financial* manager
- * *financial* director
- * *financial* accountant
- * chief executive officer
- * group management accountant
- * manager: *financial* accounting
- * group *financial* executive
- * group manager: *financial* planning
- * senior director *finance*
- * general manager
- * commercial banker
- * director
- * management accountant
- * manager: *financial* and management accountant
- * general manager: corporate *finance*
- * managing director
- * accountant
- * performance and working capital manager
- * group management accountant
- * group office accountant

Ten of the respondents had job descriptions referring to a management position in the finance function. The description referring to accountant and management accountant was less popular. The reason for this could be that the term “finance or financial” is a more comprehensive term and can include a lot of functions and responsibilities, including management accounting and accounting functions, to be performed by senior financial employees. The fact that the job description referring to management accountant was less popular can be an indication that the name of the profession is becoming obsolete when describing senior jobs in companies.

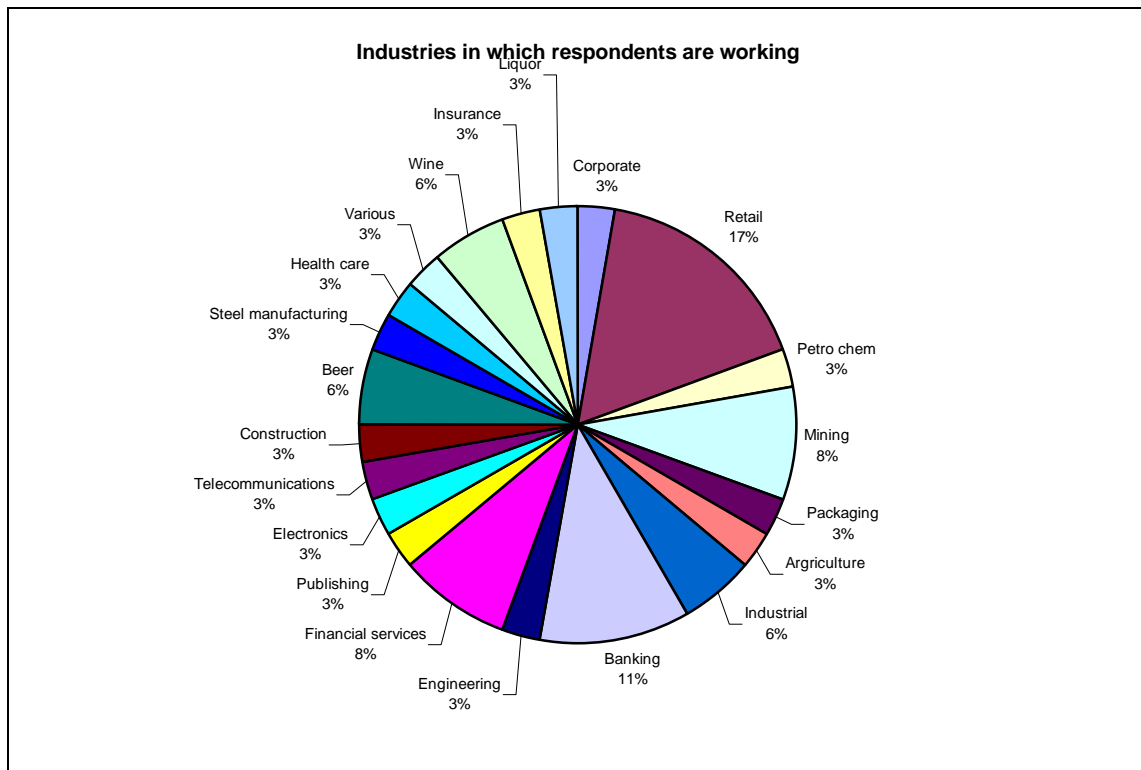
The fact that the respondents’ job descriptions covered a wide spectrum encourages the expectation of receiving reliable opinions on whether they experience a gap between education and those skills and techniques required in practice.

53% (42% and 11%) of the respondents had been in his or her particular job three years and longer (refer to the pie chart at the end of this section), which can imply that the respondent is in a relatively senior position in the company. This could also be related to the fact that the more senior the employee position, the more comprehensive the job descriptions and responsibilities of that specific senior employee.



5.7 Industries in which the respondents are employed

Of the 42 companies included in the sample, 17% are in retail, 11% in banking, 8% in mining and 8% in financial services. The other industries include corporate services, petrol chemicals, packaging, agriculture, engineering, financial services, publishing, electronics, telecommunications, construction, breweries, steel manufacturing, health care, wine, insurance, liquor and the industrial sector (refer to the pie chart on the next page).



The sample covered 21 industries in total, which means that no single industry was overwhelmingly represented and could possibly influence the outcome of the questionnaire unduly. Opinions were therefore given from various industries' point of view. This is also important for solving the research problem, as education should be of a standard geared to serve all the industries and not only the financial or manufacturing environment.

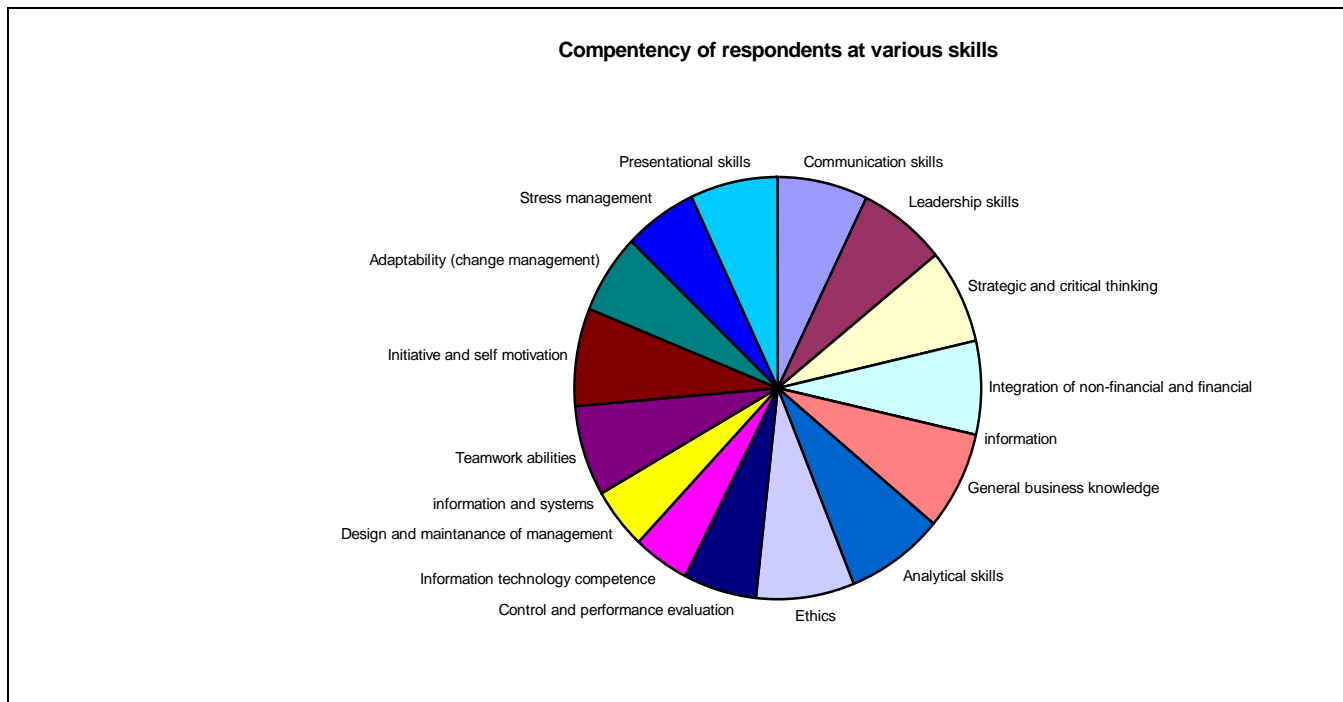
5.8 The degree of competence in certain` skills

The accounting environment is becoming a more comprehensive environment than it was a few years ago, which implies that a wider range of skills is expected from employees. This is a critical point for resolving the problem statement, because education should live up to these changes by nurturing skills that would close the perceived gap between education and practice.

A table of the skills addressed in question 10 of the questionnaire (see Appendix 2, page 181) and respondents' replies are given below.

	Totally incompetent	Incompetent	Fairly competent	Very competent	Not applicable
	1	2	3	4	5
1 . Communication skills	0%	8%	72%	21%	0%
2 . Leadership skills	0%	10%	56%	33%	0%
3 . Strategic and critical thinking	0%	8%	51%	41%	0%
4 . Integration of non-financial and financial information	0%	10%	44%	46%	0%
5 . General business knowledge	0%	3%	49%	49%	0%
6 . Analytical skills	0%	3%	46%	51%	0%
7 . Ethics	0%	0%	41%	59%	0%
8 . Control and performance evaluation	0%	19%	44%	36%	0%
9 . Information technology competence	0%	34%	40%	26%	0%
10 . Design and maintenance of management information and systems	0%	36%	44%	19%	0%
11 . Teamwork abilities	0%	10%	67%	23%	0%
12 . Initiative and self motivation	0%	5%	41%	54%	0%
13 . Adaptability (change management)	0%	21%	53%	26%	0%
14 . Stress management	0%	6%	61%	30%	3%
15 . Presentational skills	0%	11%	68%	21%	0%

100% of the respondents felt that they or their peers were fairly or very competent at ethics. Analytical skills and general business knowledge were second highest at 97%. Initiative, self-motivation and communication skills were fourth at 95%. Sixth highest at 92% was strategic and critical thinking, with stress management at 91%. At 90% were integration of non-financial and financial information and also teamwork abilities. Leadership skills and presentational skills were rated tenth at 89%. The fact that respondents felt that they or their peers were competent at the above-listed skills, implies they received relevant education in terms of these skills and the focus need not be changed in future education programmes. These skills, which the respondents felt competent at, are given in the pie chart on the next page.

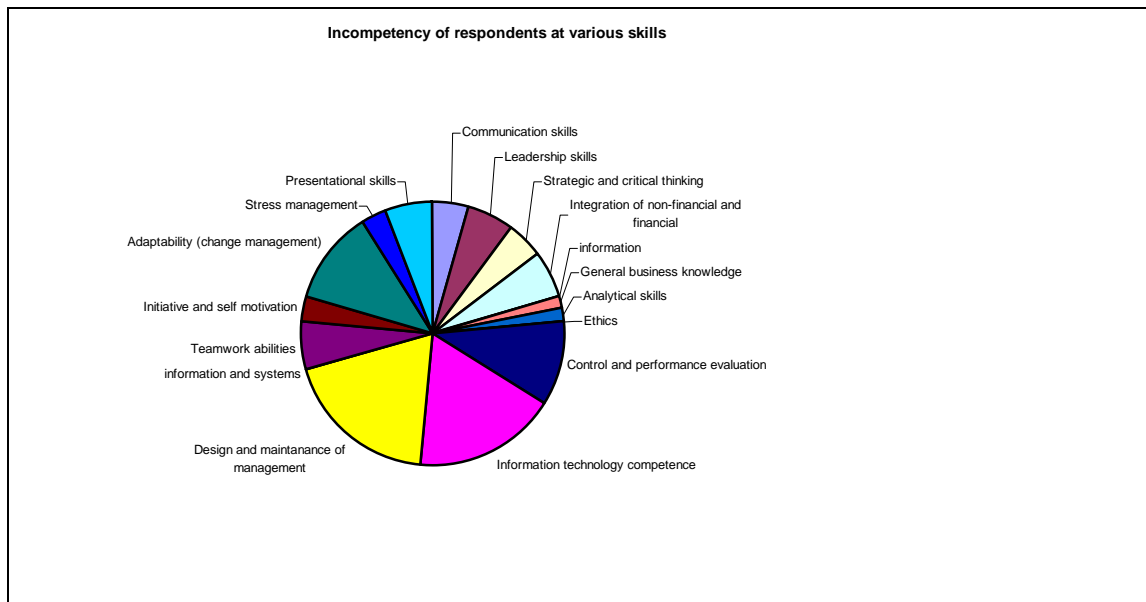


The competency in terms of control and performance evaluation, information technology and the design and maintenance of management information and systems was different, because as illustrated in the table on page 118, 39%, 31% and 34% of the respondents replied that they or their peers were incompetent in terms of these skills (refer to table of skills on the previous page). This is an indication that these skills need attention at some stage. The reason for this incompetence of some of the respondents may be because of difficult and unique information systems used at particular companies, which could have been designed by computer specialists and may be very complex. Another reason for the incompetence could be that the computer literacy of the specific employee is not up to standard and some training or education should be done in-house or during the course of the official studies. Student training may be difficult because of the specialised nature of the specific company's information systems. Computer literacy is included in the syllabi of management accountants and accountants; however, it is very general and cannot incorporate the specific information systems applicable in some companies. The reasons for

implementing merely general computer literacy programmes in the syllabi are firstly, because academics do not necessarily know the scope of the specialised information systems in business; secondly, the time available during formal education is limited and thirdly, the cost and variation of these specific programs used in the business world make it very difficult to incorporate them in the syllabi. Nevertheless students should be trained to become much more adept at designing alternative ways of presenting information to managers and more time should be spent in the classroom discussing the advantages and disadvantages of different information presentation models (refer to section 3.9.1).

The fact that 39% of the respondents indicated that their peers displayed incompetence at control and performance evaluation skills (see pie chart demonstrating the degree of incompetency on page 121), may imply that the employee is not able to see the bigger picture in a certain given scenario. This could also be ascribed to a lack of management information due to poor information systems. The initial design and the maintenance of information systems are expensive and some companies may feel that the investment in information systems is not financially justifiable.

The responses to the question on the skill to adapt (handle change) showed that 21% of the respondents feel incompetent, 53% are competent and 26% are very competent. It is good to see that 79% of the respondents feel competent or very competent at handling change. However, the fact that 21% feel incompetent is a worrying issue because of the difficulty of training students in this specific skill. Adaptability is a difficult skill to evaluate because it can be very personal, depending on the situation.



Other skills, which four of the respondents felt were important and had not been included in the given list of skills, are:

- * Negotiation skills and self-confidence.

Negotiation skills are closely linked to self-confidence because the higher an employee's degree of confidence the better the chances are of his/her handling negotiations well. This is a skill that will develop over time as knowledge and experience increase, and will be difficult to address in a formal education programme.

- * The ability to look at the bigger picture (4-quadrant thinking).

The ability to look at the bigger picture can be linked to the control and performance evaluation skill that was mentioned in an earlier paragraph.

* Time and people management.

Time and people management skills can be seen in the same light as negotiation skills and self-confidence, which should develop over time where knowledge and experience accumulate. These skills are crucially important, because jobs in the financial environment tend to include teamwork where employees from different areas work together in a multi-skilled team, for example where a project has to be evaluated for a possible investment option.

The evaluation of the different skills is important for solving sub-problem 2, where the most important management accounting skills required by practitioners have to be identified.

5.9 The frequency of use of the techniques

The most relevant management accounting techniques were included in the questionnaire (see Appendix 2, question 12, page 183) and are listed below. Respondents were asked to indicate how often these techniques were used in their organisations, as frequency of usage would help ascertain which techniques are regarded as most important in practice. This will contribute towards the resolution of sub-problem 1, which relates to the identification of the importance of various techniques.

	Never	Once or twice a year	More than twice a year	Very often
	1	2	3	4
1 . Budgeting	0%	36%	25%	39%
2 . Costing systems				
Product costing	35%	27%	11%	27%
Life cycle costing	54%	26%	13%	8%
Target costing	62%	14%	16%	8%
Quality costing	59%	24%	9%	9%
3 . Formula based analysis				
Cost-volume-profit analysis	18%	24%	32%	26%
Regression analysis	71%	11%	13%	5%
Learning curves	74%	16%	5%	5%
Value chain analysis	47%	34%	8%	11%
4 . Asset management	5%	21%	39%	34%
5 . Working capital management	3%	5%	32%	59%
6 . Strategic cost management	16%	26%	29%	29%
7 . Knowledge management	24%	42%	18%	16%
8 . Variance analysis	0%	8%	29%	63%
9 . Value-added accounting	39%	21%	29%	11%
10 . Activity-based costing	68%	13%	3%	16%
11 . Total quality management	57%	24%	3%	16%
12 . Balanced scorecard	55%	16%	11%	18%
13 . Standard costing	49%	11%	19%	22%
14 . Economic value added	37%	24%	16%	24%
15 . Free cash flows	18%	16%	24%	42%

The techniques that were rated as being used more than once a year, and therefore assumed to be important, are the following:

1. Budgeting and variance analysis 100%
2. Working capital management 97%
3. Asset management 95%
4. Strategic cost management 84%
5. Cost-volume-profit analysis and free cash flows 82%
6. Knowledge management 76%
7. Product costing 65%
8. Economic value added 63%
9. Value added accounting 61%
10. Value chain analysis 53%
11. Standard costing 51%

Given these percentages one can assume that the techniques listed above should be included in the training of management accounting students. It is interesting that variance analysis is used by all of the respondents, but standard costing is used often by only 51% of the respondents. This means that those variance analyses that the respondents were referring to do not necessarily relate to standard costing but could refer to other areas where variances can be used, for example variances from forecasts or budgeting.

Working capital management is used by 97% of the respondents and is crucial in any business environment. This technique relates well to asset management, which is used by 95% of the respondents. Working capital refers to short-term asset and liquidity management, whereas asset management refers to a longer period, normally longer than one year. Strategic cost management, used by 84% of the respondents, also refers to a longer period where total costs are controlled and managed.

Cost-volume-profit analysis too, is used very often. This could be due to the fact that costs fluctuate very often, which can also have an impact on prices and therefore profit can be managed through this technique. It is also a popular tool to use with new product lines or new ventures. It is a relatively easy tool, which enables a manager to make a quick decision given that time is a limiting factor in the business environment.

Knowledge management is also important, although it is a difficult technique to teach students. It is becoming more and more important because of the fact that bought-in employee expertise as well as expertise due to experience in a specific discipline, can be expensive when mismanaged. The reason for this statement is that good knowledge/experience of an employee in a specific discipline can be very difficult to replace if the employee decides to resign or is deployed in a job where his expertise is not applicable.

Product costing, which is theoretically seen as an important technique, is rated relatively low at 65%. This can mean that product costing is done by operations managers and not necessarily by management accountants or accountants. This could be due to advanced information systems, which bring detailed information to the whole company and not just to the finance department.

The three techniques relating to value-added issues are used often and this is due to the fact that all businesses try to add value to their product or service. If they did not add value, and managed it, companies would not be able to increase their sales and profits margins. Cost reduction is not always easy to obtain in today's global and competitive environment, and therefore the importance of value-added techniques cannot be overemphasised.

Standard costing is used often by only 51% of the respondents. This is a technique which ought to be highly applicable specifically in the manufacturing environment, yet 49% of the respondents never use the technique. This makes it a debatable point as to whether the time spent on this technique in the current management accounting syllabi should be decreased or not, especially in view of the fact that there are a lot of other techniques which have been or could be included and on which more time could be spent, given their importance as indicated by the table at the start of this section.

The techniques that respondents felt were never used (refer to the pie chart at the end of this section), were the following:

1. Learning curves 74%

Learning curves are difficult to use in practice, because a lot of information and mathematical knowledge is needed to utilise this technique effectively. It is also applicable only in specific areas, for example where a housing contract for 20 houses is carried out and labour is the main factor which decreases as the employee performs the job frequently.

2. Regression analysis 71%

Regression analysis is also a difficult technique because of the statistical knowledge and information required for its effective use.

3. Activity-based costing 68%

Activity-based costing, where costs are allocated according to various activities or cost pools previously identified, is also a technique which is not used very often, although in theory rated as an important technique (refer to section 2.5.5.4). Possible reasons for this could be the amount of data needed in terms of relevant activities, or the differentiated customer needs for multiple products and services, or new production techniques, e.g. JIT.

4. Target costing 62% and life cycle costing 54%

Target costing and life cycle costing are both relatively new costing techniques. They may, perhaps, be unknown to most of the respondents and

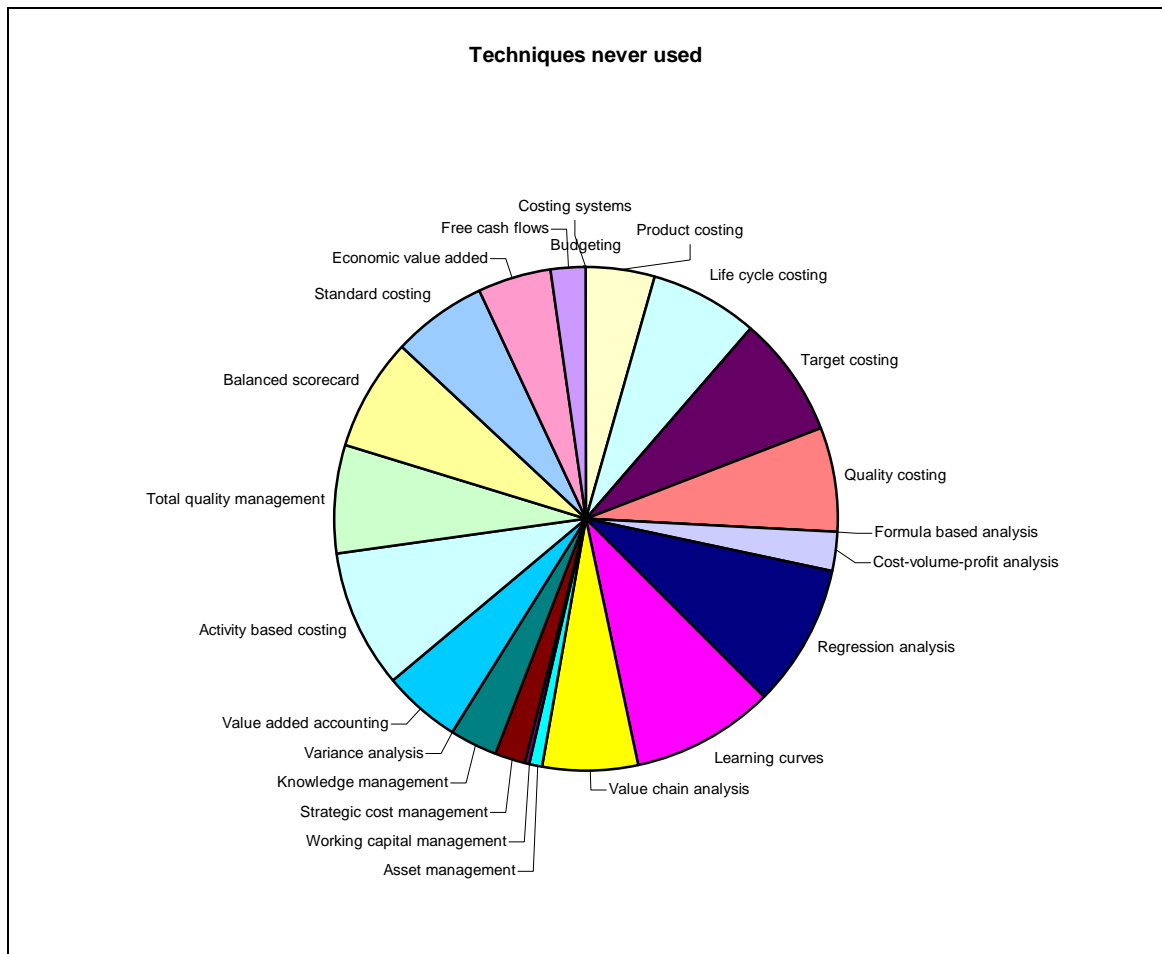
therefore not used often. Target costing is a top-down costing approach where costs are allocated to a product in terms of the selling price of the product. Life cycle costing bases the costing of a product on the entire life cycle of the product, from the research and development stage through to the selling stage.

5. Quality costing 59% and total quality management 57%

59% and 57% of the respondents never used quality costing and total quality management. The reason for this may be the fact that time is always a limiting factor and that the respondents thought that other issues and techniques were more important than to spend time on quality costing. Quality costing and management can also be seen as part of the production department's responsibilities and not that of the financial department's. These techniques are, like ABC, rated by theory as important but are not often used in practice.

6. Balanced scorecard 55%

The balanced scorecard is a technique where the focus is taken away from financial issues. Other issues such as customer service, innovation and employee issues are becoming more important in decision-making and are placed on the same line of importance as financial issues. It is also a relatively new technique and may be unknown to the respondents. It is a typical example of a technique which seems to be important and is included in the syllabi because of the importance allotted to it by educators and the authors of management accounting textbooks, but not regarded by practitioners in the same light.



Other techniques that respondents felt were important but had not been included in the 15 techniques given in the questionnaire were the following:

* Forecasting and designing “what if” scenarios

Forecasting is a modern technique, which is based on budgeting. It is more flexible and is used more often than budgeting. “What if” scenarios are future projections where various outcomes are tested to evaluate the best option, e.g. a budget, an investment decision or a cash flow projection.

* Management accounts

“Management accounts” is a composite term for various sets of information being put together to add value to decision-making done by management. This was included as the skill “design and maintenance of management information systems” and 66% of the respondents felt that they or their peers were competent in terms of this skill.

* Cash flow budgeting and cash flow management

This technique is included in working capital management and is regarded by 97% of the respondents as a technique which is used very often.

* Change management

This is more of a skill than a technique and is included and discussed in the previous section (refer to section 5.8). It is, though, a noteworthy skill as change is the order of the day and employees should be able to deal with change effectively.

* Marginal costing on a product, activity, division and business unit

This technique is included as a section of relevant costing which is included in the management accounting syllabi, and employees should be able to handle marginal costing issues if the applicable information is available.

Valuations of businesses, payback method, ratio analysis, variance bridges, return on capital employed, standard financial indicators and discounted cash flow techniques are techniques which are included in the financial management syllabi. They are, therefore, not included in the context of this research study.

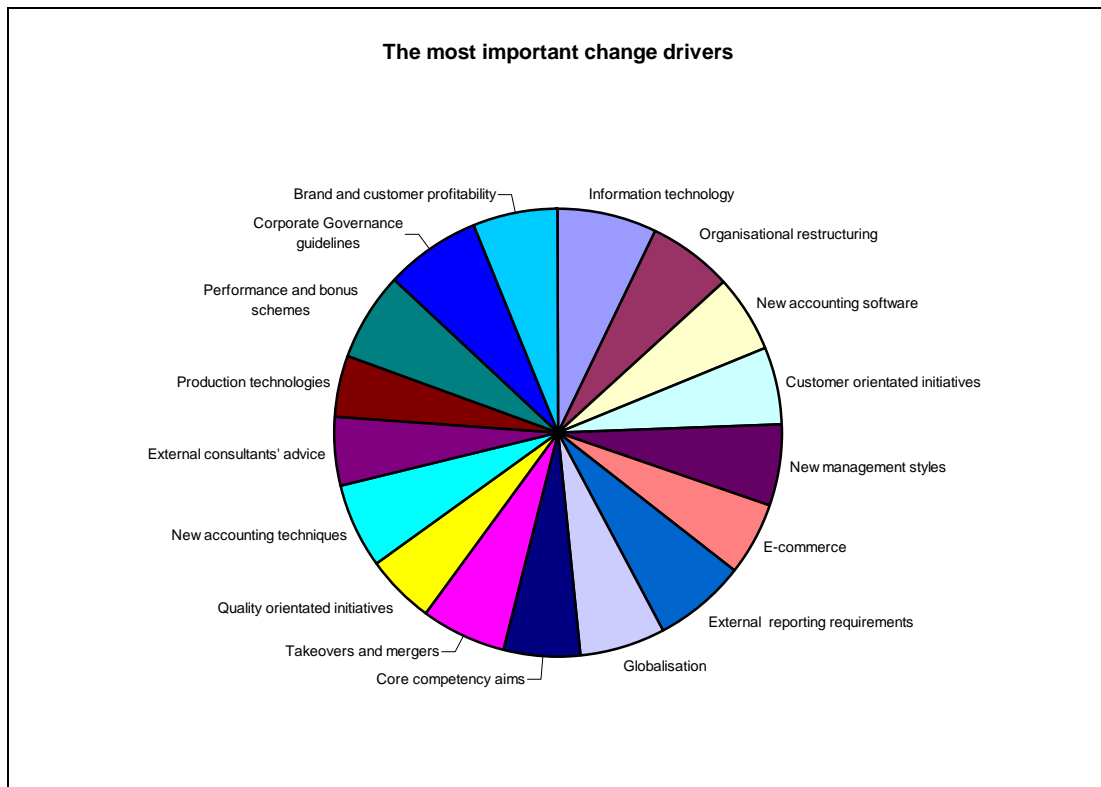
5.10 Indication of the importance of change drivers in the management accounting work environment

Change drivers are considered the factors driving the key tasks of a management accountant and will therefore have an influence on those skills and techniques that practitioners regard as important.

	Not important	Important	Very important
	1	2	3
1 . Information technology	0%	21%	79%
2 . Organisational restructuring	13%	45%	42%
3 . New accounting software	24%	61%	16%
4 . Customer-orientated initiatives	21%	50%	29%
5 . New management styles	14%	54%	32%
6 . E-commerce	24%	46%	30%
7 . External reporting requirements	5%	32%	62%
8 . Globalisation	16%	50%	34%
9 . Core competency aims	19%	46%	35%
10 . Takeovers and mergers	13%	42%	45%
11 . Quality-orientated initiatives	29%	50%	21%
12 . New accounting techniques	16%	50%	34%
13 . External consultants' advice	32%	66%	3%
14 . Production technologies	37%	47%	16%
15 . Performance and bonus schemes	8%	29%	63%
16 . Corporate Governance guidelines	5%	29%	66%
17 . Brand and customer profitability	13%	29%	58%

The most important change drivers, listed according to the respondents' opinions given in the table on the previous page, are as follows:

1. Information technology 100%
2. External reporting requirements 95%
3. Corporate Governance guidelines 95%
4. Performance and bonus schemes 92%
5. Brand and customer profitability 87%
6. Organisational restructuring 87%
7. Takeovers and mergers 87%
8. New management styles 86%
9. Globalisation 84%
10. New accounting techniques 84%
11. Core competence aims 81%
12. Customer-orientated initiatives 79%
13. E-commerce 76%
14. New accounting software 74%



Change drivers that the respondents felt were not very important are the following:

- * Production technologies 37%

Production technologies were seen as a relatively unimportant change driver. A possible explanation could be that production is regarded as a specialist area covered by the specialists in the production department. Product costing was also rated relatively low when respondents had to give their opinion on various techniques in use in their working environment.

* External consultants' advice 32%

Another change driver which was rated relatively low, is the external consultant's advice. Maybe the respondents felt that if a consultant gave advice, he would normally be responsible for the implementation of the advice as well. Another possible reason could be that companies do not use external consultants' advice and rather use in-house specialists to perform specific tasks.

* Quality-orientated initiatives 29%

Quality-orientated initiatives were also seen as a relatively unimportant change driver and the quality-related techniques were also rated relatively low in a previous question (refer to section 5.9) put to the respondents. It could be that quality is seen as a production department responsibility. Another possible explanation could be that companies may feel that if their product has gone through testing in the research and development stage of the product, there is no need for further quality testing. The costs attached to putting quality-orientated initiatives in place may be too high and not worth their while for some companies, depending on the industry they are involved in.

Some other change drivers that the respondents felt were important and that had not been included in the list of 17 change drivers are the following:

- * Organising and managing time, effective people management skills and ethics

- * Time and people management is not really a change driver, but rather a particular skill that an employee should have. This was addressed in section 5.8.

- * Investment management

Investment management could be seen as a possible change driver, but was not listed here because it is more of a financial management issue and is not covered in this study.

- * Corporate strategy, corporate communication, local and international economic environment

This possible change driver given by the respondents does not need specific attention, because it can be categorised within the Corporate Governance guidelines, which was seen by 95% of the respondents as an important change driver.

- * Poor information systems and strategic restructuring

Poor information systems and strategic restructuring are two issues that are embedded in information technology and organisational restructuring, although the respondents felt it was not covered in the given list of change drivers.

* Regulation and legislation

Regulation and legislation could be seen as a change driver, but globalisation is actually driven by regulation and legislation in various countries and is therefore incorporated in the globalisation change driver.

* Break-even calculations

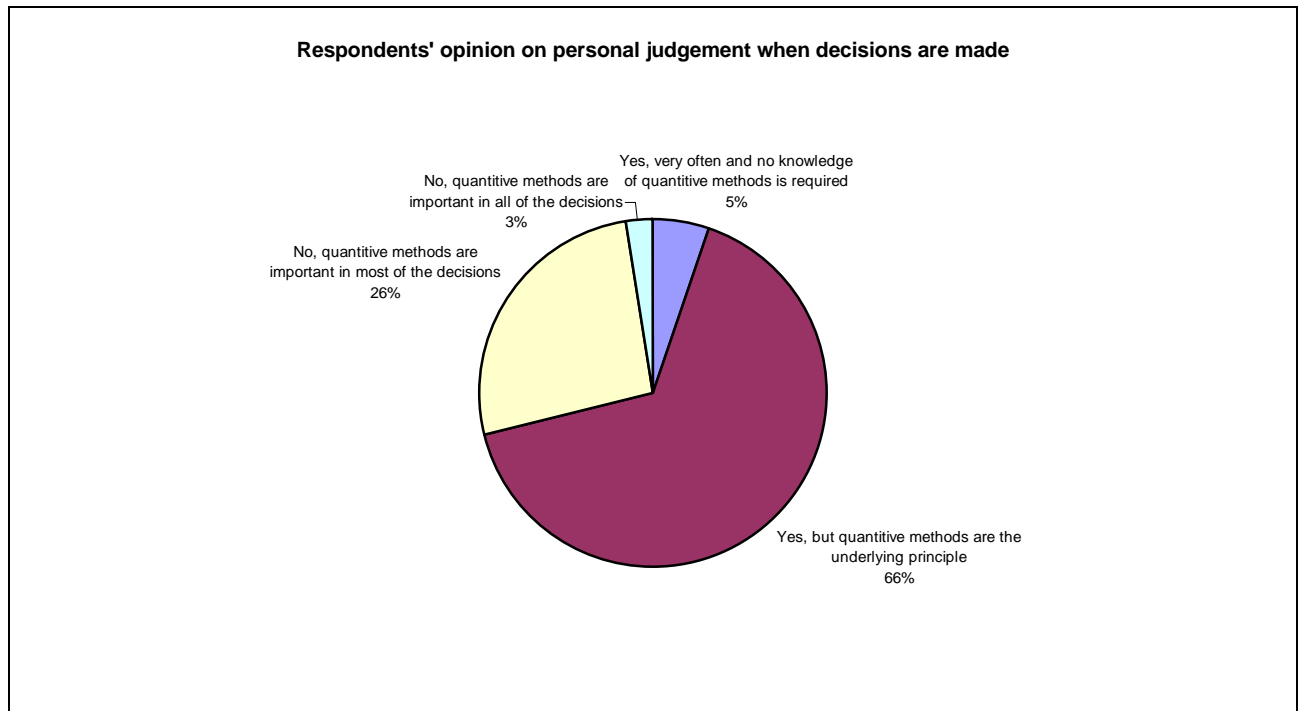
Break-even calculations is not a change driver, but rather a cost-volume-profit analysis technique. This was rated by 82% (refer to section 5.9) of the respondents as a technique which is used often.

Determining the change drivers is important in resolving the problem statement, because they give an indication of those skills and techniques which should be included in management accounting education in order to accommodate the changes that employees have to face in the modern business environment.

5.11 The importance of personal judgment in relation to quantitative methods when performing tasks that involve evaluations and estimations

When performing tasks that involve evaluations and estimations, practitioners' use of personal judgement as opposed to quantitative methods give an important indication regarding the problem statement as to whether or not quantitative methods are still relevant in decision-making, and how such quantitative methods should be addressed in the syllabi.

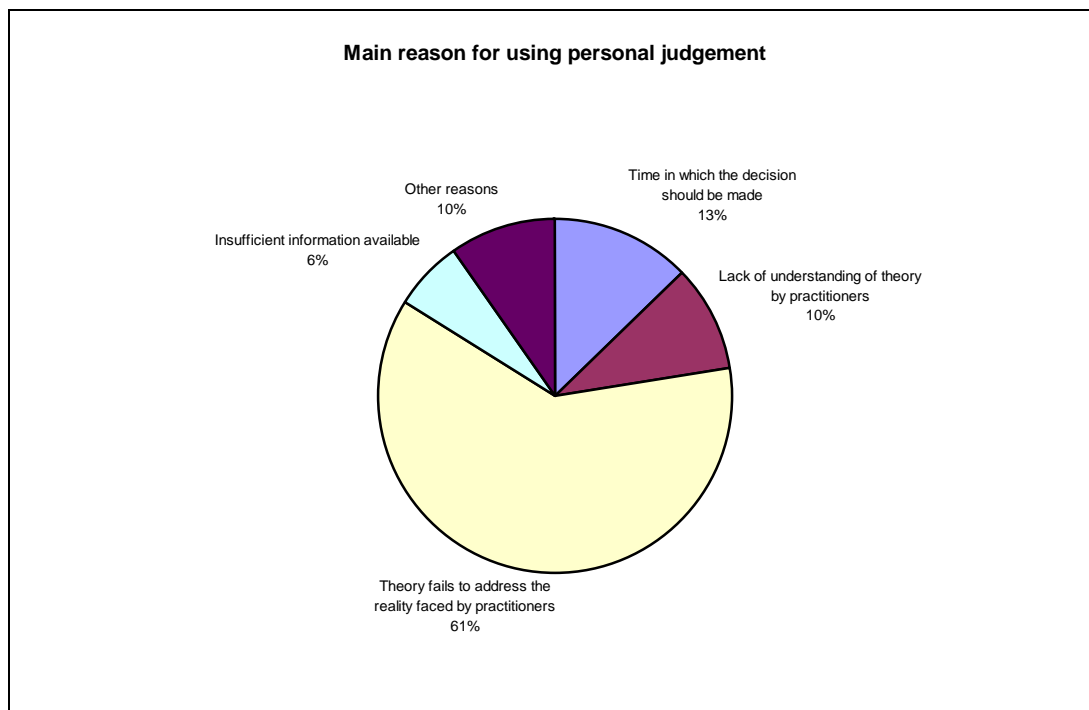
The respondents' opinion on personal judgment (refer to question 16 of the questionnaire in Appendix 2) are presented in the pie chart below:



5% of the respondents felt that personal judgment is very important, with no knowledge of quantitative methods required when performing tasks. 66% felt that personal judgment is important, but that quantitative methods constitute the underlying principle. This gives a total of 71% of the respondents that felt that personal judgment is important. 29% of the respondents felt that quantitative methods are important in most of the decisions and that personal judgment is not as important. The total percentage of respondents who felt that quantitative methods are important, although with or without personal judgment, is 95%. This means that although there were some respondents (5%) that felt that no knowledge of quantitative methods is

required when performing tasks, it is still very important to have the basic theoretical knowledge before entering the business environment.

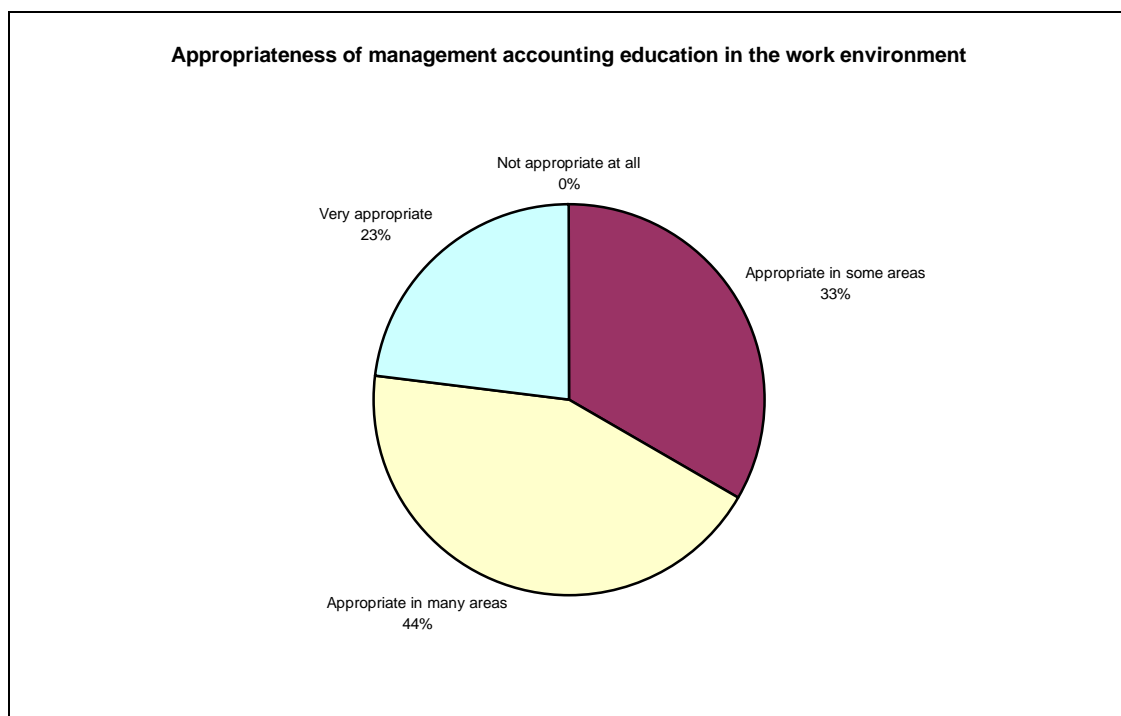
The main reason for 61% of the respondents' answers that personal judgment is more important than quantitative methods is that theory fails to address the reality faced by practitioners. 13% felt that the limited time in which a decision has to be taken is the main reason for not using quantitative methods in practice. 10% of the respondents felt that practitioners lack understanding of the theory and 10% felt that there were other reasons for not using quantitative methods in practice. 6% felt that the reason was the insufficiency of the available information on which decisions are based (refer to the pie chart below).



In conclusion, introducing case studies into the curriculum should enable students to get closer to the reality faced by practitioners. In the next section the appropriateness of management accounting education in the workplace will be discussed in detail.

5.12 The appropriateness of management accounting education in the work environment of the respondents

The appropriateness of management accounting education in the work environment (refer to the pie chart below) is fundamental to the recommendations that will be made in terms of future management accounting education and therefore in resolving the research problem.



33% of the respondents felt that their education was appropriate in some areas only.

67% of the respondents felt that their management accounting education was appropriate in many areas in their work environment. None of the respondents felt that their management accounting education was not appropriate at all.

The fact that 33% of the respondents felt that their education was appropriate only in some areas, means that there is scope for change in the current management accounting education. This supports the problem statement, which seeks to ascertain whether there is a need to change the contents or the approach of management accounting education at South African academic institutions.

Individual word-for-word opinions as to how educators can improve management accounting education to add value to the work environment are the following:

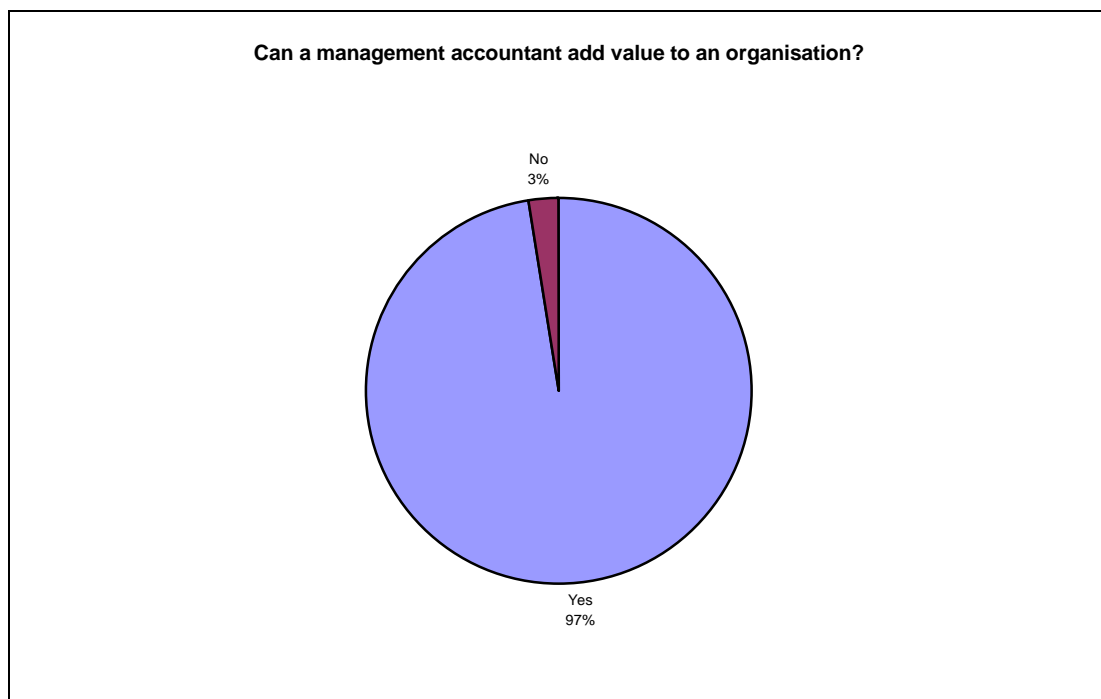
- * “More practical application, less detailed theory”
- * “Practical based – more case studies on Harvard business school methodology”
- * “Improve the practical application of theory”
- * “Expand in syllabus”
- * “Students must understand the business process”
- * “Managerial skills should be taught”
- * “Incorporate real business examples, actual case studies”
- * “More practical training”
- * “More emphasis on budgeting and performance evaluation”
- * “More emphasis on the link between financial and management accounting”

The most important issue that emerged in most of the answers was that training should be more practical and more use should be made of case studies so that students should be able to handle typical business situations where clear-cut information is not always available. The recommendation that the syllabus should be expanded can only

be addressed if skills and techniques which are currently included in syllabi are identified as of lesser importance and taken out of the syllabus, or if less time is spent on them. Solving sub-problem 1 of the research problem, as stated in section 1.2 consists in identifying those skills and techniques which could receive less attention in the syllabus in order to add value to management accounting education.

5.13 Areas where a management accountant can add value to an organisation

97% of the respondents (refer to the pie chart below) intimated that a management accountant could add value to an organisation, which is an indication that management accountants still have a very important role to play in the business environment. This is good reason to accommodate the requirements of practice to ensure that management accounting education lives up to the expectations from practice.



The most important areas, as given by the respondents who answered in the affirmative, as to where the value could be added, emerge from the following quotations:

- * “Proactive evaluation of the impact and potential benefits of improvement areas in the business environment”
- * “Finance function, project evaluation, continuous improvement and initiatives (tracking)”
- * “A good management accountant can use the data presented to them to generate information that can be used to make decisions.”
- * “Investment decision, tracking, performance management, balanced scorecard”
- * “Understanding the value business model of an organisation and helping the business to understand the key drivers to increase wealth”
- * “Finding relevant, reliable information to enable management to make accurate decisions”
- * “Cash flow management, incentive schemes, and performance measurement”
- * “To give underlying figures in order to help with decision making”
- * “Profit analysis, cost to benefit analysis, price analysis and activity based costing”
- * “Identifying cost drivers in a manufacturing environment”
- * “Accurate costing, useful analysis of financial data and other data”
- * “Assist in providing correct information to assist in making decisions, especially profitability of a decision”
- * “Value-added initiatives, standardisations and cost management”

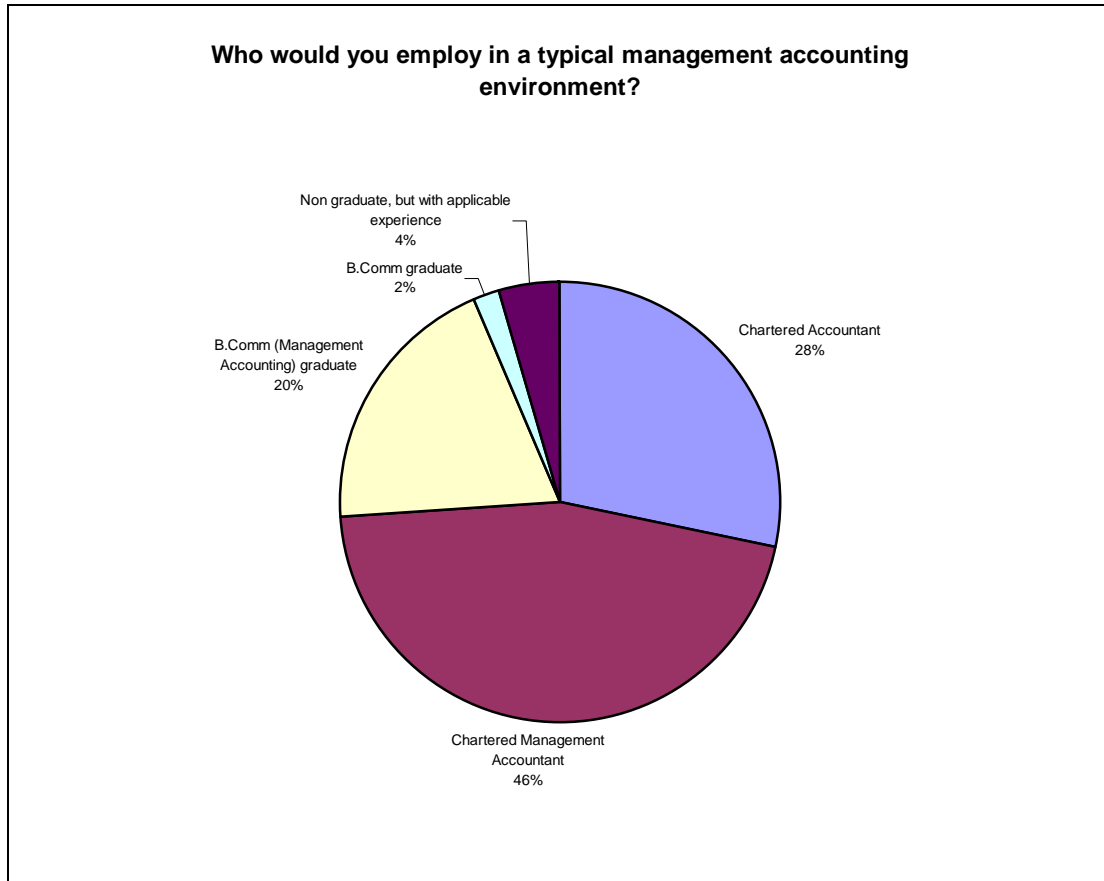
- * “Value-added initiatives”
- * “Help to understand business better and provide backing to see impact on financials and cash”
- * “Product and customer profitability “
- * “Financial discipline aspect”
- * “Managing profitability of various line items”
- * “Analysis to help with strategic decisions, process improvements, investments”
- * “Area costing, to determine whether a specific shaft is profitable or not”
- * “Provide you with the tools to manage and plan your business on the operational side”
- * “Evaluations of options, cost analysis and forecasts”
- * “Forecasting, information about future signs, cost strategy”
- * “A management accountant can see the total picture and can look objective to problems. Should be allowed to express views”
- * “Product costs and new ventures”
- * “Support function to corporate strategy, executive management. A person filling holes where needed”
- * “Strategic business management, performance evaluation, monitoring of performance”
- * “Financial analysis and interpretation, giving advice on appropriate costing systems, pricing policies”
- * “Value-added information to make the right decisions”
- * “Forecasting and business analysis”
- * “Cost control, cost analysis and variance analysis”

It is interesting that none of the respondents thought that quality issues or the design of information systems are important areas where management accountants can add value to an organisation. This corresponds with previous opinions given in relation to quality and the design of information systems, where the researcher assumed it to be a part of some other specialist area in the company. Most of the listed value-adding functions can only be performed if a good information system is in place in an organisation. Throughout the opinions of the respondents it is clear that a management accountant should be able to understand the basic business principles and reconstruct applicable data to information which can add value to any given decision that has to be taken. Specific disciplines such as knowledge of taxation, auditing, accountancy and legal issues are not mentioned in any of the respondents' opinions. It could be assumed that chartered accountants, who are trained more specifically in these areas, will address these issues.

5.14 Employment of candidates in a typical management accounting environment

66% (46% and 20%) of the respondents would either employ a chartered management accountant or a management accounting graduate. 28% of the respondents would employ a chartered accountant and 4% would employ a candidate without any formal management accounting training. 74% would employ a candidate with a professional qualification, in either management accounting or accounting. A noteworthy point is that only chartered management accountant education enables students to see the bigger picture, as 4-quadrant thinking is part of the honours syllabus (refer to CIMA syllabus in Appendix 3, page 186). In all the other options management accounting as

a subject is taught on its own and the focus is on independent principles, techniques and skills, as prescribed in the SAICA syllabus (refer to SAICA syllabus in Appendix 4, page 199).



5.15 Additional comments regarding management accounting education in South Africa

The following are the verbatim opinions of the respondents who answered the last question of the questionnaire (see Appendix 2, page 181):

- * “Not close enough to the business environment where they can make a difference as part of the decision-making team”
- * “Sound academic training, lack of practical examples in training”
- * “On the job training is vital”
- * “The CIMA training is fine; it is about finding and encouraging people to develop intellectual and emotional intelligence (IQ and EQ)”
- * “CA training is better because of the tax and accounting, which is better than the CIMA training”
- * “More emphasis should be placed on management accounting for tools for day-to-day management and future planning”
- * “CIMA training is good and keeps up with the requirements of employment in South Africa”

Again the emphasis is on more practical experience, with the positive feedback on the chartered management accounting qualification. During this education a lot of emphasis is placed on 4-quadrant thinking in the honours year and students have to complete three years of compulsory practical experience before registration as a professional Chartered Management Accountant. The opinion on the chartered

accountant training also supports the assumption made earlier that this qualification tends to focus more on specific disciplines like accounting and taxation, which makes them specialists in these areas.