

CHAPTER 8

CONCLUSIONS, RECOMMENDATIONS AND CRITICAL EVALUATION OF THE RESEARCH

8.1 INTRODUCTION

In light of the history of management accounting (see chapter 2), the changing business environment reviewed in chapters 3 to 5 and the results documented in chapter 7, this chapter focuses on recommendations and conclusions as well as a critical evaluation of the research.

The problem statement is revisited and the extent to which the objectives of the study have been achieved by means of archival and empirical research is documented. This chapter focuses on recommendations in respect of the required expertise mentioned in the questionnaires. The information is used to compile a framework for the design of new management accounting education curricula. This framework is considered important in the light of the IFAC (2001:12) comment that *[r]ecognition of a shift is one thing but redirection is another*. A critical evaluation of the study is submitted and recommendations are made for further research.

8.2 REVISITING THE PROBLEM STATEMENT

The South African business environment has over the past decade undergone tremendous change due to the influences of globalisation, information technology and knowledge management. Although chapter 2 established that management accountants have since earliest times been exposed to change, chapter 3 showed that the current changes are much more drastic. Chapter 3 classified the changes as morphogenic.

Chapter 4 established that attempts have been made by both the IMA (1999) and the IFAC (2002) to determine which capabilities management accountants would need in the new millennium. Despite these studies, no

attempt has been made to study the current performance of management accountants in practice in South Africa. A core objective of this study was therefore to increase knowledge about practising management accountants and how they meet the challenges presented by a changing business environment.

To achieve this objective, the study was conducted in two parts. The first part consisted of archival research (reviewing the relevant literature). The second part of the study empirically investigated the skills displayed by management accountants. These two parts of the research is discussed below.

8.2.1 Literature review (archival research)

The literature review provides the background to the study and represents the foundation of the empirical research that followed.

The history and development of management accounting, based on the archival research, were discussed in chapter 2. It is believed that a thorough knowledge and understanding of history would promote an understanding of what can be expected in future. The history of management accounting was placed in **context** and management accounting was clearly defined as a specialised area within the accounting field.

The historical investigation proved that the notion of professionalism was important to management accountants, and the origins of their professional association, the Chartered Institute of Management Accountants (CIMA), were traced. A marked feature of this part of the research was the absence of written information on the history of the CIMA in South Africa. In this respect the study has made a significant contribution to the body of knowledge on management accounting.

Chapter 3 defined the **concept** of change as a major cause of the new business environment. This definition required an understanding of both historical and contemporary views of change throughout world history. The

impact of change on the business environment was discussed in order to contextualise the research and to note the dynamics of the environment in which management accountants function. It was clear that the business environment faced not incremental, but radical change that affected every fibre of society. Three major drivers of change were identified, namely globalisation, information technology and the knowledge economy.

Chapter 4 examined the role of management accountants during different waves of change identified by Toffler (1980:27). During Toffler's (1980) First Wave, management accountants performed simplistic functions such as cash budgeting. The Second Wave of change (the Industrial Revolution with its emphasis on production) created new opportunities for management accountants in that the demand grew for expertise in terms of both cost control and product pricing.

The Third Wave was split into two distinct periods, namely the modern accounting period and the postmodern accounting period, each with different effects on management accounting. In the late 20th century, organisations were anxiously reacting -- through their management accountants -- to waves of change brought about by the three identified major drivers of change (globalisation, information technology and the knowledge economy). The impact of these forces of change influenced perceptions of the skills management accountants would require in future. Questions were raised about how academic institutions managed these change factors in their curricula to ensure that future management accountants acquired the necessary capabilities. The two most important aspects in curriculum design were identified and the future skills of management accountants were discussed in terms of two authoritative international studies by the IMA (1999) and the IFAC (2002) (see paragraphs 4.4.1 & 4.4.2).

Both the IMA (1999) and the IFAC (2002) studies identified key transformation areas in management accounting. One area in which management accountants had to excel was the provision of information by way of advanced management accounting systems. In order to remain relevant in the business

environment, management accountants had to be taught new skills. The relevance of management accounting education came into question (Albrecht & Sack 2000:2). *Education [referring to tertiary education] is being delivered in the same way today as it was 20 or 30 years ago. It is obvious that a measure of discontent exists between what educators teach and practice wants.*

Chapter 5 concluded that the only way to establish whether tertiary management accounting programmes met the demands of the changed business environment was to measure the suitability of the curricula. The balanced scorecard was identified as an appropriate tool for this purpose. The balanced scorecard uses four perspectives and relevant goals to measure curriculum suitability. These four perspectives, namely financial, learning and growth, internal business processes and customer perspectives, would focus on the strategic direction of management accounting education in the face of three defined forces of change. The research indicated limited application of the balanced scorecard to academic departments internationally, and no application of the balanced scorecard to South African academic institutions.

The way in which management accountants met the challenges of a changed business environment had to be studied empirically to pave the way for the development of relevant curricula.

8.2.2 Empirical investigation

The empirical part of the research used a survey to determine the skills management accountants required and used in meeting the challenges of a continually changing business environment. The population that was selected consisted of two distinct groups, namely management accountants in practice (practitioners) and educators at tertiary institutions (academics). The subpopulations were chosen by using reasoned judgment of the characteristics of the population and the objectives of the research. The selected target groups had to be representative of the population from which they were drawn.

Self-administered e-mail questionnaires were used to determine the perceptions of both academics and practitioners. Chapter 6 presented an overview of the research methodology. The advantages and disadvantages of the e-mail survey as well as the content, layout, reasons for questions, covering letter, pilot testing and distribution of the questionnaires were discussed in chapter 6, as were the preparation, processing and statistical presentation and analysis of the data. Details were also given of the limitations of the research.

Chapter 7 presented and analysed the research findings. Descriptive statistics were used to record practitioners' perceptions on:

- the overall value of tertiary management accounting education (subsection B1 of the questionnaire)
- management accounting principles taught at universities (subsection B2 of the questionnaire)
- what is required of management accountants to do their jobs well (subsection B3 of the questionnaire)
- the top five attributes of management accountants (subsection B4 of the questionnaire)
- the use and knowledge of new and traditional management accounting systems (subsections B5, B6, B7 and B8 of the questionnaire).

Descriptive statistics were also used for the academics, and were presented according to customer, internal business process, innovation, and learning and financial perspectives in terms of the balanced scorecard.

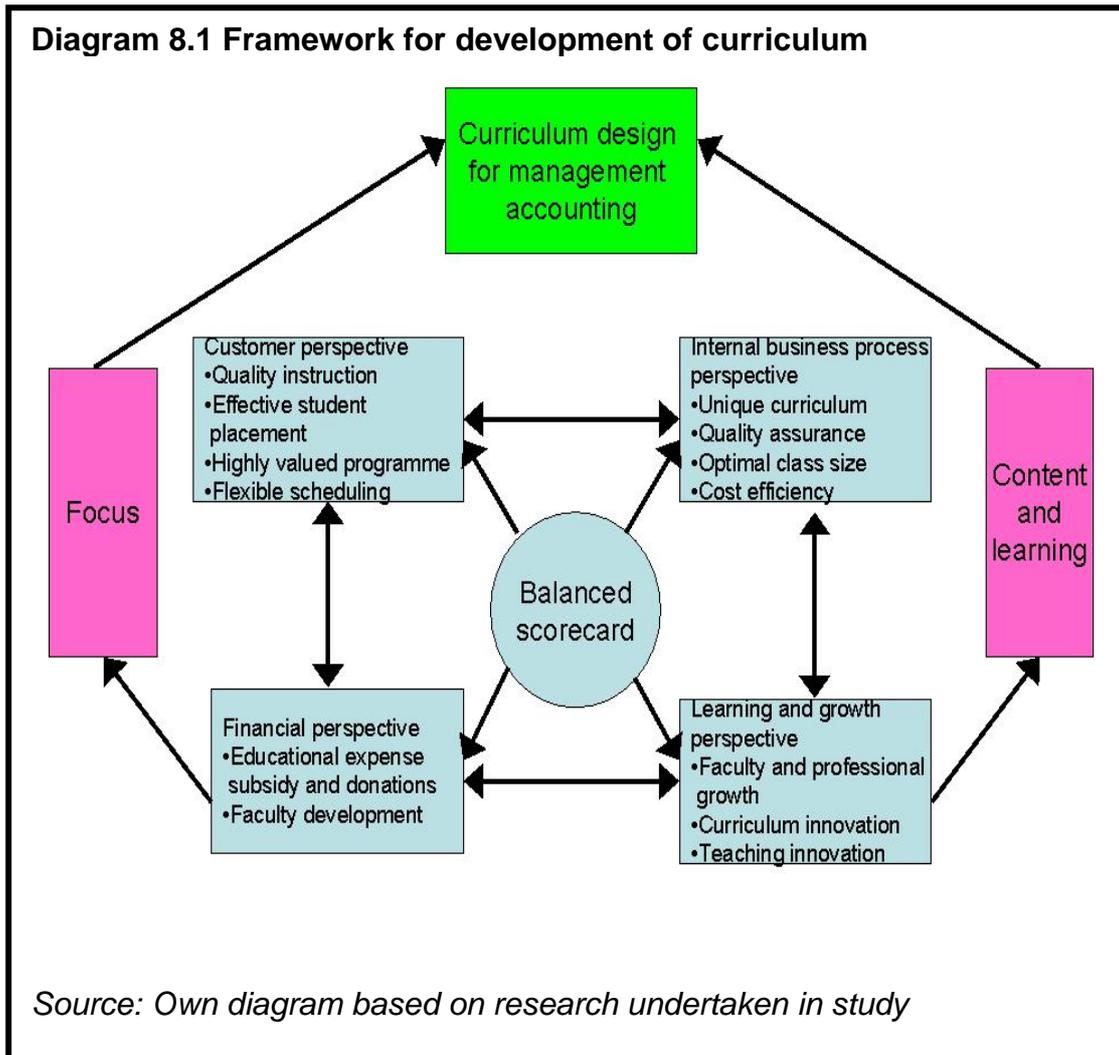
For the presentation of inferential statistics, subproblems were formulated into ten research propositions that arose from the primary problem statement. These propositions were used to guide the formulation of hypotheses to support or refute propositions by the researcher. A summary of the findings were presented in chapter 7.

8.3 Research recommendations: framework for curriculum design

The study of expertise has been a topic of interest among researchers for many decades, but despite the long history of research no single definition exists of what is meant by expertise (Abdolmohammadi, Searfoss & Shanteau 2004:1). However, the IMA (1999) and IFAC (2002) studies detailed in chapter 4 established that expertise requires both knowledge and skills. The information about knowledge and skills obtained from the survey questionnaires will assist in establishing a new framework for designing management accounting courses at universities.

The IFAC (2002:237) mentioned two major aspects in curriculum design, namely **focus** and **content and learning** (refer to 4.4 again). According to Arya, Fellingham and Schroeder (2003:29) and Kinney (2003:47), “focus” means concentrating on the provision of relevant education at the most economical price. In terms of the balanced scorecard, this entails a focus on the customer and financial aspects. The second important aspect in curriculum design is content and learning. The IFAC (2002:237) believes that this aspect requires the development of both knowledge and skills. Again using the balanced scorecard, the information obtained on learning and growth and internal business processes will address the aspect of content and learning.

A framework may therefore be developed for designing new management accounting curricula by utilising the information obtained from the empirical investigation discussed in chapter 7. This framework would link the two aspects of focus and content and learning to the four perspectives of the balanced scorecard described in paragraph 5.4 (see diagram 8.1 below).



From this study (see paragraph 7.4.6) it is clear that a gap exists between the skills provided by current education and those management accountants require in practice. Diagram 8.1 illustrates the proposed framework for curriculum design. The goal of providing a relevant curriculum in a changing business environment may be achieved by converting the data analysed in chapter 7 into recommendations and applying these to the model developed in Diagram 8.1. Everyone involved in curriculum design should take note of the recommendations listed below under each of the four perspectives of the balanced scorecard.

8.3.1 Recommendations in terms of customer perspective

- Academics should conduct regular surveys among stakeholders (alumni, employers and students) to ensure that they provide relevant, quality instruction.
- It has become clear that practitioners do not believe that new graduates are immediately ready for the world of business. Recommendations in this regard are submitted under the learning and growth perspective.
- In the past, management accounting courses were presented once during the year. Academics in the survey were not willing to present these courses more than once a year. However, in view of the demands from customers and the changing business world, academics should consider offering courses on a more flexible basis.

8.3.2 Recommendations in terms of financial perspective

- An apparent need exists to revisit student/staff ratios, especially at undergraduate level. The majority of academics in the survey did not believe that these ratios allowed quality instruction.
- A number of issues need to be addressed to enable faculty to keep abreast of changing business demands. Most staff members for example believed that they did not have enough time to do research.
- Budgets should allow staff members to attend conferences to keep them abreast of changes in the business world. Most of the respondents believed that budgets were inadequate.

8.3.3 Recommendations in terms of internal business process perspectives

- From a quality assurance perspective, greater emphasis should be placed on attaining professional management accounting qualifications. Most management accounting departments are still headed by chartered accountants rather than chartered management accountants. Chapter 2 demonstrated a clear focus difference between management accounting and financial accounting.
- However, quality assurance is not the only issue that needs to be addressed. Uniqueness of the curriculum showed major shortcomings. It is recommended that academics change their assessment and teaching styles to incorporate what is happening in business. Oral and computer-based presentations should for example be incorporated into the teaching and learning environments. Relevant computer packages should form an integral part of teaching, for example spreadsheets when teaching budgets. Practical cases based on real-world problems should form an integral part of the core curriculum. Most management accountants work in service industries and should be developed to address relevant issues in the service industry.
- It is recommended that academics place greater emphasis on developing skills as the survey revealed that academics still place a premium on developing knowledge.

8.3.4 Recommendations in terms of learning and growth perspectives

- Most academics in the survey believed that they were still teaching the same core body of management accounting knowledge as three years ago. In practice, especially in the service industry, a great need exists for knowledge of advanced management accounting systems. It is recommended that these systems be addressed in developing a

management accounting curriculum. Again it should not be a case of transferring knowledge or comprehension, but of application and integration.

- In order to promote curriculum innovation, research and creativity should play a significant role in presenting management accounting solutions.
- The ability to write business reports should form an integral part of the new management accounting syllabus.
- It is recommended that changes in the management accounting curriculum be geared to improve students' ability to find solutions to problems.
- Academics should innovate in their teaching of management accounting and move away from presenting classes by just explaining questions and answers.
- Classes should be presented interactively to develop the communication and presentation skills of management accounting graduates. The staff/student ratio, especially at undergraduate level, again comes into play.
- The survey showed that the stagnation in teaching was due to the fact that very few staff members have for the past few years been involved in teaching workshops. It is recommended that staff members be frequently exposed to alternative ways of teaching management accounting. It is also recommended that management accounting educators be assigned to spend time in industry. Focusing on the customer perspective could strengthen the partnership between industry and academia.
- The survey indicated that textbooks are still the most commonly used method of instruction. It is recommended that new teaching aids (guest

speakers, videos and computer assignments) become an integral part of the management accounting syllabus.

- In view of the need for innovative study aids and innovation and creativity in problem solving, prescribed books should not be limited to the standard management accounting textbooks.
- Academics are no longer leading practice in terms of innovation in management accounting -- as has been the case throughout management accounting's history. The main reason could be that not enough time is available for research. Unless academics change the roles around and start leading practice in terms of innovation in management accounting, they run the risk of becoming irrelevant in providing the skills practitioners require.

The recommendations on internal business processes and the learning and growth perspectives provide input for the content and learning aspect of curriculum design.

Academics should also take cognisance of the following issues pointed out by the survey:

- A serious effort is required to attract more women to the profession.
- The professional chartered management accounting qualification should be actively pursued.
- Management accountants should be encouraged to form separate departments in order to become valuable strategic partners. Management accounting graduates should be educated about their role in business.
- It is recommended that academics, in line with international thinking, continue to search for a name to replace "management accountant".

Taking these recommendations into account will close the gap between the perceptions of practitioners and academics regarding management accounting skills. Following these recommendations in curriculum design will ensure that the management accounting skills taught at university remain relevant in a changing business environment.

8.4 CRITIQUE OF THE STUDY

This study used a triangulation method to investigate whether the skills and competencies required and acquired by management accountants are still adequate in a changing business environment. The balanced scorecard was used as the primary analysis framework.

Some limitations of the research have been discussed in chapter 6, but are mentioned again:

- The merger at the beginning of 2004 of a number of formal tertiary institutions could have had an adverse impact on the research as several changes were made in the management structures of these institutions. However, this impact was carefully considered (see paragraph 6.6.1) and the necessary steps were taken to minimise their effect.
- The self-administered questionnaires used in the survey have a number of disadvantages (see paragraph 6.6.2.1). Steps were taken to overcome these disadvantages.
- The small size of the academic sample could be a limiting factor. However, the primary goal of this research was to increase the existing knowledge about management accounting practitioners. Although the self-administered questionnaire was addressed to heads of departments, it did not preclude the respondents from consulting other academics.

- The small sample size of academics necessitated the use of non-parametric statistics to prevent distortion of the statistical results.
- Although the response rate on the practice questionnaire was not very high, it was still within acceptable limits compared to similar studies.

8.5 RECOMMENDATIONS FOR FURTHER RESEARCH

This study has expanded the core body of knowledge on the skills management accountants acquire and require to meet the challenges of a changing business environment. Not all the results are conclusive, however, and further research is therefore recommended.

- The history of management accounting in South Africa
- Contrasting traditionalist and critical approaches in the history of management accounting
- Contrasting the approaches of the Foucauldians and the economic rationalists to management accounting
- Applying the balanced scorecard in tertiary education departments
- Extent of the use of the balanced scorecard and other advanced management accounting systems
- Advantages and disadvantages of using e-mail to send out questionnaires
- Investigating the name “management accountant”
- Why women are still underrepresented as management accountants in South Africa

- The practising management accounting target group was selected by way of reasoned judgment. This research could be extended by drawing samples from organisations where individuals who are not members of CIMA work as management accountants.
- The statistical testing can be extended to include more powerful statistical analyses.
- The background information on practitioners did not include questions on gender. If the target population were extended, information could be obtained on gender perceptions.

8.6 CONCLUSION

The aim of this research was to investigate whether current management accounting skills were adequate in the face of a changed business environment. A thorough review of the relevant literature was undertaken to provide background for the empirical research.

This review covered the changes management accountants faced in the past and the nature of the changes they face today. The review identified globalisation, information technology and the knowledge economy as three major drivers of change. The effect of the drivers of change on the role of the management accountant was scrutinised. A number of questions were raised about the management accountant's ability to remain relevant in a changing business environment.

The objective of the empirical research was to study how management accounting practitioners were able to meet the challenges presented by a changed business world. It was found that tertiary management accounting education has been slow to adapt to these changes.

The three drivers of change will continue to change the business environment in which management accountants operate. Management accounting will probably continue to evolve to meet new challenges.