THE STAGE OF DEVELOPMENT OF MANAGEMENT ACCOUNTING IN THE EASTERN CAPE

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DIE STADIUM VAN ONTWIKKELING VAN BESTUURSREKENINGKUNDE IN DIE OOS-KAAP

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OPSOMMING

Die teorie en praktyk van bestuursrekeningkunde was die onderwerp van veel kritiek en debat gedurende die afgelope dekade. Beskuldigings van verlore relevansie, finansiële veslaggewing vooroordeel en verdraaide inligtigting wat aan besluitnemers en strateë verskaf word, vorm die grondslag van hierdie kritiek. Gedurende hierdie tydperk het die omgewing van beide die vervaardigings en sakewereld groot en verreikende veranderinge ondergaan. Die vraag ontstaan of die teorie en praktyk van bestuursrekeningkunde tred gehou het met hierdie veranderinge.

Hierdie navorsing beoog om die stadium van ontwikkeling van bestuuursrekeningkunde in terme van die konseptuele raamwerk van IFAC te bepaal. Die effek van ondernemingsgrootte, kultuur en tipe van besigheid, sal ook ondersoek word. Die navorsing beoog ook om die mate van implementering van die aktiwiteits-gebaseerde-kostebenadering en die vooroordeel teenoor finansiële verslaggewing, te ondersoek.

'n Literatuurstudie wat verskillende invloede en perspektiewe verleen aan die teorie en praktyk van bestuursrekeningkunde, van 'n historiese, huidige en toekomstige oogpunt af, is onderneem. Die empiriese gedeelte van die navorsing het bestaan uit gestruktureerde onderhoude wat met bestuursrekeningkundiges in groot organisasies in die Oos-Kaap provinsie uitgevoer is.

Die ontleding en interpretasie van die bevindinge het tot n reeks standpunte, wat die stadium van ontwikkeling van bestuursrekeningkunde aandui, gelei. Geen oortuigende standpunt kon ingeneem word nie, maar n betekenisvolle neiging tot die Derde en Vierde Stadium van ontwikkeling, was duidelik.

Hierdie bevindinge het implikasies vir bestuursrekeningkundiges, akademici en die professionele institute ingehou. Daar was onder andere voorgestel dat bestuursrekeningkundiges in die praktyk, meer aandag by die operasionele afdelings van hul organisasies bepaal; dat akademic hulle meer fokus op strategiese koste bestuur en dat die professionele institute, katalisators van verandering moet wees.

KEYWORDS

Management Accounting
Stage of Development
Conceptual Framework
Financial Reporting Bias
Activity-based-costing
Cultural Influences
Historical Perspective
Current Perspective
Future Perspective

SLEUTELTERME

Bestuursrekeningkunde
Stadium van Ontwikkeling
Konseptuele Raamwerk
Finansiële Verslaggewing Vooroordeel
Aktiwiteits-gebaseerde-kosteberekening
Kulturele Invloed
Historiese Perspektief
Huidige Perspektief
Toekomstige Perspektief

ABSTRACT

The theory and practice of management accounting has been the subject of much criticism and debate in recent years. Accusations of relevance lost and financial reporting bias, resulting in distorted information being provided to decision-makers and strategists, are at the centre of these criticisms. During this period the manufacturing and business environment has undergone major and far-reaching changes that impact on management accounting. The question arises as to how the theory and practice of management accounting has evolved during this period.

This research sought to establish the stage of development in terms of the conceptual framework as formulated by IFAC, and the effect of nature, size and culture on the practice of Management of Accounting in the Eastern Cape. The implementation of Activity-Based-Costing and the existence of Financial Reporting bias were also investigated.

A literature study was undertaken reflecting the various influences and perspectives of the theory and practice of management accounting from a historical, current and futuristic point of view. The empirical component of this research consisted of structured interviews conducted with management accountants in large organisations in the Eastern Cape.

Analysis and interpretation of the findings led to a series of statements indicating the stage of development of management accounting in the Eastern Cape. No conclusive statement could be made, although a significant leaning towards the Third and Fourth Stage of development was evident.

Arising from these statements were a number of implications for management accounting practitioners, academia and the professional institutes. It was suggested that practitioners involve themselves more in the operative processes of their organisations; that academia focus attention on the issues surrounding strategic cost management and that the professional institutes be facilitators of change.

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LIST OF ABREVIATIONS USED

ABC	Activity-based-costing
CAD	Computer-aided-drawing or computer-aided-design
CFA	Institute of Commercial and Financial Accountants
CIM	Computer Integrated Manufacturing
CIMA	Chartered Institute of Management Accountants
CPA	Certified Public Accountant
GAAP	Generally Accepted Accounting Practice
IFAC	International Federation of Accountants
IMA	Institute of Management Accountants
JIT	Just-in-Time
NPV	Net Present Value
PCG	Plan Comptable General
PDD	Product Production Department
RDP	Reconstruction and Development Plan
ROI	Return on Investment
SAP	Systems, Applications and Products
SAICA	South African Institute of Chartered Accountants
TQM	Total Quality Management

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CHAPTER ONE

INTRODUCTION

1.1 Background

The environment in which the science of management accounting is practised has undergone major changes over the last two decades. Changes in competition and technology, the economic deregulation of industries in most western countries, globalisation, electronic communication and an explosion in service industries, have placed significant strains on organisations and their cost and management accounting reporting systems. The extent and nature of the corresponding changes (or lack thereof), within the theory and practice of management accounting, has been the subject matter of many management accounting theorists and practitioners during this period concerned.

The strongest criticism with regard to the practice of management accounting in recent years has probably come from a publication by Johnson and Kaplan entitled, ***Relevance Lost – The Rise and Fall of Management Accounting*** (Johnson & Kaplan, 1987). This publication is regarded by many practitioners and theorists as a seminal work and is often referred to in papers, journal articles and textbooks. In their work they argue that traditional management accounting practices are no longer relevant.

" Today's management accounting information, driven by the procedures and cycles of the organisation's reporting system, is too late, too aggregated and too distorted to be relevant for manager's planning and control decisions." (Johnson & Kaplan, 1987:1)

Their problems with management accounting as practised at the time could be summarised as follows:

1. Operating managers spent far too much time on understanding and explaining variances that had very little to do with the economic and technical reality. Therefore, they had far too little time left to consider more important strategic planning and development issues.

2. Costing methodologies, and in particular the widespread use of standard costing, resulted in poorly informed decisions. They contended that costing methods were driven by the needs of financial accountants and auditors, and whilst these methods provided accurate aggregated data, they resulted in distorted product pricing and sub-optimal product mixes.

3. Performance measurement techniques commonly employed that focused almost exclusively on financial quantitative data resulted in a short-term approach that could seriously compromise the long-term survival of the organisation.

Flowing from these criticisms, techniques such as activity-based-costing (ABC) for the allocation of fixed overheads, and balanced scorecards for performance measurement, were pioneered, particularly by Kaplan.

Many writers have also criticised the conventional wisdom of management accounting as being outdated and irrelevant. The Society of Management Accountants of Canada went as far as to state that much of what is currently taught in management accounting/cost accounting courses is unlikely to be of any use in managing contemporary operations or in guiding strategy (Bromwich & Bhimani, 1989:2).

In a study to determine the scope of management accounting, Scapens (1988a:16) studied a sample of twenty- four management accounting textbooks prescribed in the United States and the United Kingdom. His findings revealed a distinct bias towards manufacturing industries as the primary focus of most textbooks. He also found that considerable emphasis was placed on quantitative decision models based on the Neo-classical economic framework, which appeared to have very little acceptance in practice (Scapens, 1988b:18). Optimising decision models such as 'linear programming' and 'decision trees', to mention two, were not commonly used in practice. The most favoured capital budgeting technique used in practice was the simplistic 'payback' period. McLean (1989:46) is of the opinion that academics may preach the virtues of 'Net Present Value' (NPV), but practitioners hold other views. He states that techniques that have been subjected to long and hard criticism, continue to hold sway in practice.

Shank (1989:60) argues that a paradigm shift is necessary from cost accounting and managerial cost analysis to strategic cost management. He identifies three themes that underlie strategic cost management. These are:

- the value chain concept
- the strategic positioning concept (product differentiation, cost leadership)
- and the cost driver concept.

He states that conventional managerial accounting has not provided the financial analysis support deemed necessary by writers about strategy nor by executives striving to implement strategic management in their firms.

These criticisms have not gone unchallenged. The Chartered Institute of Management Accountants (CIMA) in the United Kingdom commissioned a broad-ranging and thorough review of management accounting during October 1988. This review resulted in a publication by Bromwich and Bhimani in 1989 entitled, ***Management Accounting: Evolution not Revolution***. The main finding of the review was that the evidence and arguments advanced by "advocates of wholesale changes in management accounting", were not sufficient to justify major changes in management accounting theory (Bromwich & Bhimani, 1989:2). In fact, it was the finding of the review that many of the new techniques advocated did not find general acceptance amongst practitioners, nor did any evidence exist of a crisis in management accounting. They concluded that the attentions of management accountants could be more fruitfully employed if a wider organisational view, incorporating cultural, social and political factors, was taken into account, when considering the role of management accounting within an organisation.

One may argue that the criticisms mentioned thus far are outdated as they were made more than twelve years ago. There is little doubt that Johnson and Kaplan's statement of irrelevance did result in a lot of introspection and questions being asked about the practice of management accounting. However studies of more recent papers still call for urgent change. Azzone and Masella (1994:59), in describing the current state of management accounting, state that the "dilemma for management accountants will be to either change, or to cease to exist".

Other recent calls for changes include Drury and Mc Watters (1998: 32-40), who describe various management accounting paradigms that have evolved over time, each being an attempt to align practice and theory with the ever-changing needs of the organisation. They state strongly that management accounting practices that have been clung to despite their antiquated posture, should be discarded. They describe changing business trends that have emerged. These include the removal of barriers in the world's financial markets, improvements in telecommunications, the acceleration of technological change and the globalisation of markets. They argue that all of these changes dictate the need for companies to meet new challenges if they are to prosper, and that few practices have been so widely emphasised in affecting the competitive edge as management accounting practices.

Kaplan (1995:12-13) describes new roles for management accountants. He states that excellent management accounting systems cannot guarantee success in the competitive environment of the 21st Century. Organisations will continue to succeed and prosper only if they design products and services that are valued by customers and are produced with efficient, high quality and responsive operating processes and are marketed and distributed effectively to targeted customer segments. Inadequate and distorted signals from management accounting systems will cause companies to encounter severe difficulties when performing these critical organisational processes.

In a recent case study regarding management accounting and change in the United Kingdom, Burns (1999:566-596) emphasised the importance of understanding routines and institutions in an organisation as a prerequisite in the management of any form of change. He states that the changing nature of contemporary management accounting has important implications for the education and training of management accountants. Not only do management accountants need to be experts in financial matters, but they also need a broad-based understanding of their businesses and an ability to work closely with other members of the management team. Thus, there is a need to develop their broader personal skills and commercial capabilities, as well as their financial knowledge.

In his discussion on the changing practice of management accounting, Cooper (1996:26-35) describes the growing importance of cost management within the various functions of an organisation, as opposed to management accounting per se. He states that there are three groups

that are particularly affected by the way in which management accounting is practised. These groups are:

- Management accounting professionals, who need to become involved in training as many individuals in the firm as possible and in developing new management accounting systems to support cost management programs as they evolve
- The certifying institutions, who need to shed the constraints of the domination of financial accounting and convert their institutes from their accounting origins to cost management
- Management accounting academics. As cost management becomes more important, an increasing number of students will want to learn about management accounting. Management accounting forms only a small subset of what students need to be taught about cost management. If the management accounting academics do not step forward to fill the gap, somebody else will, relegating the management accounting academics to a support group as opposed to a dominant role player in the teaching of cost management (Cooper, 1996:32).

During 1994 the International Federation of Accountants (IFAC), invited leading academics and theorists from a number of countries to express their views on future trends in management accounting. The general consensus was that another decade of ever-increasing pace of change will place pressure on all management accountants in both the public and the private sectors to make considerable efforts to master the knowledge and changes required, if they wished to play a significant role in the business world of the future.

1.2 Statement of the problem

The research problem is to establish whether the profession has evolved sufficiently to accommodate the new and changed informational requirements that have resulted from the changed business environment. Flowing from the above background discussion, it is abundantly clear that the theory and practice of management accounting is currently in a state of flux. The manufacturing environment is continually changing, none more so than in the past ten to twenty years. New production techniques such as just-in-time systems, computer-aided-manufacturing, and the application of flexible-manufacturing-systems, are but a few examples of the techniques

that have impacted considerably on management accounting practices. The business environment has also undergone change. Globalisation, the explosion of information technology, trends towards the development of core competencies coupled with outsourcing, growth in service industries, public sector accounting and consulting, are all areas that the management accountant has had to deal with in recent years. This trend is not expected to abate in the future.

Various authors have provided different insights, both from a descriptive and normative point of view (Johnson & Kaplan, 1987:1-18; Johnson, 1992: 1-205; Bromwich & Bhimani, 1994: 1-207; Cooper, 1996: 26-35). Some have issued warnings regarding the relevancy of current practice and theory of management accounting. All agree that the changes within the business environment outlined above, have resulted in changes regarding the nature and timing of information required by business strategists and decision-makers. Historically, the provision of information for management decision-making purposes has been the preserve of the management accountant (Klammer, 1994:112). This research will endeavour to establish the extent to which the profession has evolved to retain this preserve.

1.3 Conceptual frameworks for management accounting

It is not surprising that in the light of the above background discussion, IFAC deemed it necessary to develop a conceptual framework for management accounting. The development of conceptual frameworks within the accounting profession is a relatively recent occurrence that arose as a result of criticism levelled at standard- setting bodies. The main criticism was that accounting standards for external financial reporting did not have an adequate conceptual basis (Mathews & Perera, 1991: 93). It is also argued that a major rationale for undertaking conceptual framework development is a strategic manoeuvre to provide legitimacy to the accounting profession during periods of competition or threat (Hines, 1988a: 89).

During February 1989 the first Statement of Management Accounting Concepts was issued. This was revised during March, 1998 (IFAC, 1998:1-22). The statement describes management accounting as an interwoven activity within the management process of the organisation. Theorists such as Hopwood (1987:222) and Dent (1991:729), who describe the organisational embeddedness of management accounting, support this view. The statement further recognises the changing nature of management accounting and that the activity is approached and organised

differently in different countries, cultures and organisations. The framework is described as having two elements:

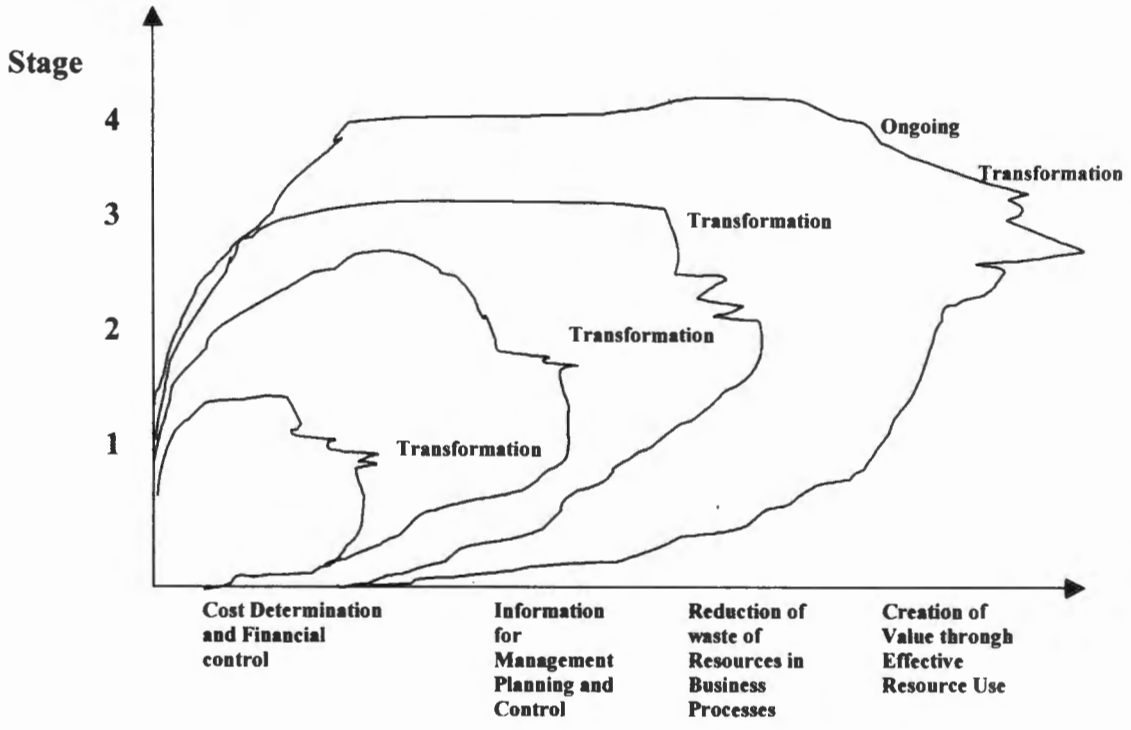
- it is *descriptive* in that management accounting is described with reference to leading-edge practice internationally, and
- it is *normative* in that it serves as a set of assumptions for reasoning about appropriate directions and as a set of criteria for evaluating good practice.

The activity of management accounting is seen as having evolved through four recognisable stages (Diagram 1, page 8). Stage One refers to the period prior to 1950 where the focus was primarily on cost determination and financial control. During Stage Two (1950-1965), the focus shifted to the provision of management information for planning and control purposes. Stage Three involved a pre-occupation with business process analysis, incorporating aspects such as waste reduction and cost management technologies. This stage lasted until approximately 1985, whereafter the focus shifted towards resource management, which constitutes Stage Four of the development.

These stages are not described as distinct concrete developments that occurred overnight. Rather, they are seen as having evolved and adapted to changes within the organisation, each stage as a "...combination of the old and the new, with the old reshaped to fit with the new" (IFAC 1998: 5). The concept, Management Accounting, refers to the outcome of the process of evolution over the four stages. The focus in Stage Four, i.e. of resource management rather than the mere provision of information for decision-making purposes, is a critical distinction as management accounting is now seen as integral to the process of management.

Other frameworks for management accounting have also been described. Drury and McWatters (1998:32-40) describe a framework for management accounting in terms of paradigms in transition, as the business environment changes. These paradigms are described as the Feedback, Adaptive, Strategic, Value Chain and finally the Kinetic paradigm (Diagram 2, page 9).

Diagram 1: Evolution of Management Accounting

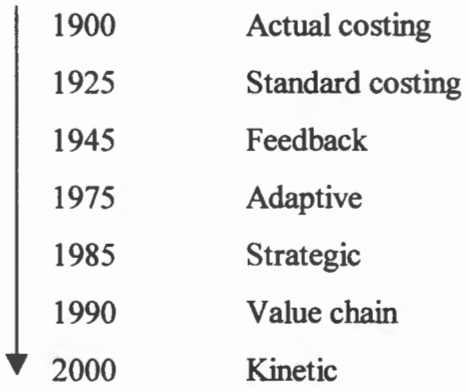


Source: (IFAC, 1994:5)

There is a similarity between these paradigms and the four stages as defined by IFAC, with the possible exception of the Kinetic paradigm. The Value Chain paradigm, with its holistic view of business management from suppliers to customers and with its emphasis on elimination or reduction of non-value adding activities, correlates strongly with the resource management stage of IFAC. The Kinetic paradigm, whilst it incorporates the essential elements of the four previous paradigms, assumes a more futuristic view as it endeavours to understand and predict changes in the environment.

Belkaoui (1980:1-4) presented four conceptual foundations for Management Accounting. These foundations are Accounting, Organisational, Behavioural and Decisional. The Accounting foundations reflect the decision-enabling function of management accounting as reflected in Stage Two of IFAC. This view is to be expected considering the time-frame of the publication. The other three foundations correlate well with the view of management accounting as being integral to the management function.

Diagram 2: Paradigms in Transition



Source: (Drury & McWatters, 1998:40) (Adapted)

There are other conceptual frameworks described in the literature. All tend to be partly descriptive and partly normative. A common theme is that management accounting has evolved through various stages and will continue to do so as the business environment changes. The conceptual framework as developed by IFAC will inform the nature of the research that is to be undertaken in this study, as well as the interpretation of the results. The researcher believes that this choice is justified for the following reasons:

1. It is an international set of concepts which recognises that the activity of management accounting is organised differently in different countries and cultures.
2. It also recognises that all organisations have not reached the same level of development and hence may differ in their management accounting activities.
3. The stature of IFAC within the broader accounting fraternity.

1.4 Research question

This research proposes to establish the stage of development of the practice of management accounting in large private-sector and public-sector organisations in the Eastern Cape.

The four stages of development pertinent to the research will be based on the conceptual framework, as formulated by IFAC. Each stage of development will be described in terms of a set of descriptive criteria.

The accounting profession in South Africa is dominated by the South African Institute of Chartered Accountants (SAICA) with approximately nineteen thousand members as at November 2000 (SAICA, 2000:1). The core competencies of members of this Institute are mainly to be found in the fields Financial Accounting, External Auditing and Taxation. Management Accounting and Financial Management, whilst major subjects within in the training program, are not afforded the same prominence as the first three mentioned, in particular as they relate to the management component.

The same principle applies to members registered with the Institute of Commercial and Financial Accountants of South Africa (CFA), the second largest accounting Institute in South Africa with a current registered membership of approximately five thousand, five hundred (CFA, 2000:1). At present the only Institute of Accounting operating in South Africa, and in which the main emphasis is Management Accounting and Financial Management, is the Chartered Institute of Management Accounting (CIMA), a United-Kingdom based Institute. Membership is still small with one thousand, one hundred qualified members and one thousand, eight hundred registered students (Veld Cooper and Associates, 2000:1). It is thus clear that from a training and professional membership point of view, the practice of management accounting in South Africa will continue to be performed mainly by persons trained in Financial Accounting, Auditing and Tax. The apparent secondary status of Management Accounting raises the possibility that the profession may not have instituted the changes necessary within the practice and theory of the discipline.

The research question can thus simply be stated as follows:

At what stage of development is the practice of Management Accounting in large private-sector and public- sector organisations in the Eastern Cape?

1.5 Aims and objectives

The overall aim of this research is to study the practice of management accounting in the Eastern Cape. In order to achieve this aim, the following objectives are set:

1.5.1 To review the various views that are found in the literature as to the historical evolution of the science, Management Accounting.

1.5.2 To examine current perspectives and influences on the practice of Management Accounting.

1.5.3 To scrutinise the views of leading academics and practitioners as to the future influences and perspectives on the development of Management Accounting.

1.5.4 To briefly discuss various research methodologies suitable for the study of Management Accounting practices and to motivate the reason for the chosen methodology.

1.5.5 To construct an interview protocol, in the form of a questionnaire, to be used in the field study that will establish the following:

- the stage of development of Management Accounting in the Eastern Cape
- the effect of the nature of the business and size of the organisation on the stage of development
- the role of culture, as determined by the country of origin of the holding company, on the stage of development.

1.5.6 To investigate the extent of the implementation of ABC for the allocation of overheads and the existence of financial reporting bias, as both these issues are considered to be important elements of change and are at the heart of the criticism of irrelevance made by Johnson and Kaplan (1987:1). Specific questions will be included in the questionnaire to achieve this objective.

1.5.7 To conduct a pilot study, to establish if problems regarding the questionnaire exist.

1.5.8 To subject the questionnaire to a test of validity with regards to the research question. This will be done by means of a Pearson's correlation analysis between various sections of the questionnaire and one question specifically included to achieve this objective.

1.5.9 To establish whether there is support, or otherwise, for the hypothesis as formulated.

1.5.10 To formulate a suitable conclusion and to make recommendations for areas of further study, as well as for areas of change in the theory and practice of management accounting, if applicable.

1.6 Hypothesis statement

The following hypothesis is formulated:

The stage of development of management accounting in large First World organisations in the Eastern Cape does not conform with the Third or Fourth stages of development as formulated by IFAC.

There are several reasons for this hypothesis:

- The apparent domination of the practice by persons primarily trained in financial accounting
- business organisations in South Africa that appear not to have fully embraced all the characteristics that allow management accounting to evolve into the Third and Fourth Stages
- The strong prescriptive bias in the literature as to what the state of management accounting should be, rather than an evaluation as to what it actually is.

1.7 Field of investigation

The business environment in South Africa is characterised by a dual economy. This research will focus on the First World section of the economy, as this is the only section upon which the various stages of IFAC have any relevance and where a function of management accounting is expected to exist. Furthermore, the research will be limited to large organisations in the Eastern Cape. This limitation is purely for practical reasons as the researcher is based in the Eastern Cape.

It is acknowledged that the Eastern Cape is generally considered to be one of the most economically under-developed provinces in South Africa. However, it must be stated that certain industries situated in the Eastern Cape (notably motor manufacturing and textiles), have contributed significantly in recent years to the national export-driven economic growth strategy.

Moolman (1998:29) makes reference to the White Paper issued in 1995 on small business. In this paper businesses are classified as follows:

Small:	Employee number of between 5 and 50;
Medium:	Employee number of between 51 and 200,
Large:	Employee number greater than 200.

In order to limit the research to a manageable number, large organisations will be defined as those employing 300 persons and more. There are twenty-eight such organisations, all of which will be canvassed. The nature of the organisations selected are as indicated in Table 1 below.

Table 1: Nature and number of selected organisations

Nature of Business	**Number of organisations**
Clothing & Textiles	3
Vehicle Manufacturers	3
Automotive Components	4
Food and Beverages	4
Manufacturing – other	6
Medical Aid & Health Care	1
Transport, Warehousing & Distribution	2
Import/Export	1
Printing and Allied	1
Banking & Financial Services	1
Tele-communications	2
Total	**28**

Source: Address lists of the Border and Port Elizabeth Region Chambers of Commerce (Port Elizabeth, 2000:1-37; Border, 2000: 1-15).

As can be seen from the summary, most categories of business organisations, with the exception of mining, are represented. The strongest representation is the motor industry, consisting of three

large manufacturing plants (Daimler/Chrysler, Delta and Volkswagen (SA)), four automotive component plants and six allied manufacturing plants. This is to be expected, as the Eastern Cape area is renowned for motor manufacturing. There are a number of large service related industries included in the population as well (Banking, Tele-communications and Health Care). The largest organisations are Volkswagen (SA) and Telkom, each with more than four thousand persons employed. Overall, it is believed that the nature and size of the organisations involved should be representative of all organisations in the Eastern Cape as far as management accounting practices are concerned.

1.8 Research methodology

Through the years researchers have used various research models to study the practice of management accounting. These include descriptive models, normative models, positive theories based on the Neo-classical framework and, in some instances, interpretative and critical approaches (Scapens, 1988b: 11). In recent years a number of management accountants have advocated the use of case study methods to inform the practice of management accounting and to develop management accounting theory (Kaplan, 1986: 445; Covalski & Dirsmith, 1990:543; Spicer, 1992:10; Ferreira & Merchant, 1992:3-27; Otley & Berry, 1994:45; Ahrens & Dent, 1998:1-3; Scapens, 1999:1).

The nature of the proposed research is exploratory and descriptive, as the overall objective is to gain an understanding of, and insight into, the state of Management Accounting in the Eastern Cape. This precludes any of the methodologies based on the Neo-classical theoretical framework. Fieldwork and case study research is qualitative in nature, is demanding on time and requires an experienced researcher, if any of the research problems, to be discussed later in Chapter Five, are to be avoided. Whilst these methods are appropriate, suitable, and indeed desirable, for the nature of the research intended, the impediments mentioned are also relevant.

The method proposed is firstly to review the literature with regards to the development of management accounting from its early beginnings to its present-day form. Included in this review will be influences such as the cultural aspects of accounting practice, the differences in approach in various countries and the issues of developing countries as they pertain to management accounting. Thereafter, a survey of all organisations that fall within the category of large

organisations in the Eastern Cape will be conducted. This survey will be in the form of a structured interview that will allow quantitative analysis of the data. The interviewees will be asked to respond to a list of questions that will include the distinguishing criteria of the various stages of the development of management accounting as formulated by IFAC. Their responses will be recorded on a rating scale that will be subjected to statistical analysis. It is believed that such a methodology will provide an answer to the research question as well as furnish statistical evidence to support or reject the stated hypothesis.

1.9 Brief summary of content of chapters to follow

The study is structured as follows:

In chapters Two to Four the literature will be reviewed. Chapter Two deals with various perspectives on the historical evolution of management accounting. These include the traditionalist view as opposed to the more radical perspective of the labour process theorists, the effect of the war-time economy in Britain and the views of the Littleton School. The chapter will be concluded with reference to the institutional/organisational perspectives that are currently gaining in popularity, as a possible explanation for the diverse views in the literature as to the evolution of management accounting.

Chapter Three reviews current influences and perspectives on the development and practice of management accounting. The influences to be examined are those of culture and the various countries in which management accounting is practised. An analysis will be made of Hofstede's societal values and how these impact on the development of accounting practices. The countries include the five spheres of influence as described in the literature. These are the British, Franco-Spanish-Portuguese, Germanic-Dutch, United States and Communistic (Wallace, 1990:6). This chapter also focuses on the characteristics of developing countries and how these impact on the development of their accounting practices. Reference is made to micro- and macro-accounting systems. Issues such as the social constructing role of management accounting are also discussed. The chapter is concluded with reference to the South African situation and how the influences and perspectives discussed, impact on the development of management accounting practices in private and public organisations in the country.

The literature review is concluded with a comprehensive analysis of a theme booklet of papers published by IFAC (IFAC, 1994: 1-113). These papers express the views of various prominent management accounting theorists and practitioners regarding the future development of management accounting and is aptly named, ***A View of Tomorrow: Management Accounting in the year 2004.***

Chapter Five sets out a detailed explanation of the research methodology to be used in the study. This chapter will include issues such as the nature of the selected organisations, the criteria for establishing the various stages of development of management accounting, the structure of the questionnaire and the statistical analysis to be applied. Included in this chapter is a section describing the actual field study and issues such as gaining access to the various organisations. The chapter is concluded with reference to interesting observations that were made during the field study, and which support aspects highlighted in the literature review.

Chapter Six will contain an analysis and discussion of the results. This analysis will include the issue of questionnaire validity as well as the findings of the study regarding the research question. The influence of culture, size and nature of the organisation on the stage of development of management accounting will be examined. Issues such as the use of ABC for the application of overheads and the presence of financial reporting bias will also be analysed as they are considered to be pertinent to the research question.

In Chapter Seven the nature of changes in the practice of management accounting as described in the literature, and as found in the field study, will be reflected upon, to establish the extent of the paradigm shift that has taken place. The implications of the findings of the study for practitioners, academia and the various professional institutes will be outlined. The chapter will be concluded with reference to recommendations for further research.

CHAPTER TWO

PERSPECTIVES AND INFLUENCES OF THE HISTORICAL EVOLUTION OF MANAGEMENT ACCOUNTING

2.1 Introduction

The reason for the inclusion of this section is aptly encapsulated in the following quotation:

"The claim may be vigorously challenged, but it can be argued that accounting is not now a mature academic subject, and that it is not likely to become one until the study of accounting invariably encompasses the study of accounting history. The prospective accountant will eventually control his accounting career, it may be claimed, if, and only if, he first studies how, and why, accounting has developed as it has." (Johnson, 1983a:1)

Of significance and interest in the controversy surrounding Johnson and Kaplan's publication, ***Relevance Lost***, is the fact that commentary invariably focused on the historical evolution of management accounting from its early beginnings to its present day-form. The only difference was the way in which the history was interpreted and its relevance to the understanding and development of management accounting.

It is these different interpretations that will be reviewed. The first section will cover the traditionalist view and its revision by the Neo-classicists. Thereafter, brief reference will be made to the views of the 'Littleton School' and the effects of the war time economy in the United Kingdom on the development of costing theory. The main discussion will centre around the conflicting interpretations of the 'transaction cost' advocates and the 'labour process' theorists. The section will be concluded with reference to the organisational/institutional approach that is currently gaining in popularity. An attempt will be made to demonstrate how this approach could be used to reconcile the various interpretations.

2.2 The traditionalist view and its revision by the Neo-classicists.

The traditional view of the evolution of management accounting is that it is seen as having evolved along with the informational requirements of management for decision making purposes. Goldberg (1949:21) argues that systems of recording come into being because of a demand that arises out of commercial necessity. Edwards (1989:14) states that accounting has developed in response to business needs. It has been both adaptive and persistent. It is adaptive in the sense that it is able to change and it is persistent in the sense that it does not change without cause.

Although double entry bookkeeping (generally attributed to the Italian merchant Pacioli) was already developed and used by the early merchants in the Fourteenth Century, the history of management accounting is usually traced to the Industrial Revolution. The early merchants did not require costly accounting procedures to gather information to aid decisions as the market mechanism provided all information needed to assess existing opportunities for trade and exchange (Johnson, 1983b:139).

The development of the early textile factories in England during the Eighteenth Century resulted in significant changes in the way labour was managed. Prior to this development, traders managed the manufacture and output of textiles using the 'putting out system', which was a decentralised system of market exchanges that used continuous contracts and simple transactions to co-ordinate the work flow from raw material to finished goods, (Johnson, 1983a:5; Chatfield, 1977:90). However, this system was not able to sustain sufficient supplies of textiles as market demand increased.

At the end of the Seventeenth Century, improvements in medical care, sanitation and better dietary habits, caused a dramatic fall in death rates and rapid population increases throughout Western Europe. In England, where the population doubled in seventy years, the agricultural economy could no longer support the numbers (Chatfield, 1977:89). The question of how to increase output was resolved by merchants in Britain. They replaced the decentralised domestic system for the production of textiles, with a centralised administrative system, the 'proto-factory'. Initially all that changed was that the 'putting out' system was simply reproduced inside a large building where master craft workers contracted specific rates for finished goods and maintained responsibility for the co-ordination and socialisation of the other workers (Wardell & Weisenfeld,

1991:657). Production control from the owner's and manager's perspectives existed in the form of restricting piece rates.

Gradually the independence of the craft worker became eroded until eventually all were under the direct supervision of the foreman with payment still based on piece rates. Labour now became a managed commodity as managers entered into labour contracts with employees and methods had to be developed to measure productivity, and hence the birth of cost accounting. Accounting records were used to accumulate information about labour and other conversion costs which managers required to monitor the efficient utilisation of resources. Wardell and Weisenfeld (1991:657) describe a fairly elaborate costing procedure that had been implemented in the Soho Engineering Foundry of Boulton, Watt and Company. This system involved a specialised system of labour between shops, detailed operation plans, plus measurements and standardisation of times and wages for each operation. The company also advocated employing highly specialised divisions of deskilled labour, combined with procedures to determine the exact cost of each item.

Cost accounting thus developed as a response to the informational needs of management for purposes of decision making. As the factory system evolved, so did the informational requirements of management. Managers needed accounting information, not only from a conversion cost point of view, but also to assess operating margins and issues such as inventory turnover and capacity utilisation.

By the middle of the Nineteenth Century great advances in transportation and communication, especially the invention of the railroad and the telegraph, resulted in greater demands for cost accounting information. Organisations now could co-ordinate the acquisition of raw materials and the distribution of final products over much larger geographical areas (Johnson & Kaplan, 1987:39). Measures such as cost per ton-mile, operating ratios, performance measures for freight and passenger sectors and performance measures for managers themselves, were needed.

A further significant development in management accounting occurred with the advent of large distribution and retailing organisations (Johnson & Kaplan, 1987:42). These organisations required information on the effectiveness and efficiency of their purchasing, pricing and retailing activities, hence the development of the gross margin concept.

Standard costing also developed during the late Nineteenth Century. It was seen to be the premier innovation of the new scientific development techniques developed and refined in the United States by Frederick Taylor (Fleischman & Tyson, 1998:92). The earliest exponents of standard costing were engineers, whose main interest was the practice of scientific management, not accounting as such. Their goal was to improve the efficient utilisation of labour and materials and to develop standard costs for the various products. This was necessary to determine selling prices and to monitor production efficiencies. These costs were not integrated into the accounting records. Fleischman and Tyson (1998:108) state that only a handful of companies implemented systems that actually utilised labour standards and analysed cost variances. They argue that whilst standard costing was warmly embraced in theory, it was only implemented by a limited number of industrial engineers.

It is also interesting to note that standard costing was not practised in the United Kingdom during the same period. Boyns and Edwards (1997:42) suggest that British businessmen attempted to find solutions to problems by adapting existing accounting practices rather than developing wholly new ones. They state that costing carried out by mid-Nineteenth Century iron companies was contained within the double entry bookkeeping system and not outside it. Furthermore, they note that costing information in Britain is singularly lacking in any reference to its use to directly monitor and control the performance of individual workers, be they unskilled labourers at the furnaces or managers of different departments.

The advent of multi-activity, diversified corporations during the early Twentieth Century resulted in further major developments in management accounting (Johnson, 1983a:11; Chatfield, 1977:104). Managers of these corporations faced the problem of co-ordinating diverse activities such as purchasing, manufacturing and marketing. The Du-Pont Powder Company, established in 1903, is an example of such a corporation, where senior managers devised important operating and budgeting activities and developed one of the most enduring performance measures in management accounting, that of return on investment, (ROI) (Johnson & Kaplan, 1987:105). Kaplan and Atkinson (1997:7) state that organisations of the size of Dupont, General Motors or Unites States Steel were unlikely to have survived without extensive management accounting systems to provide information on the efficiency and effectiveness of their decentralised operations.

Boyns and Edwards (1996:46) state that management accounting techniques were also used in the late Eighteenth Century to assist with strategic decision making in a company by the name of Dowlais. Dowlais was a large, vertically integrated, private sector organisation situated in the United Kingdom that employed over eight thousand five hundred persons by 1866. Key strategic decisions such as the purchase of a particular coal field or a switch from the manufacture of iron to steel, were based on reports prepared by management accountants.

By 1925 virtually all the management accounting practices used today, had been developed (Johnson & Kaplan, 1987:125). Little incentive for further development existed, since the corporate organisational forms developed in the early Twentieth Century provided the model for future corporations. After 1925 corporate entities and large conglomerates proliferated, resulting in a greatly increased demand for published, objective and audited financial statements. There was also a greater need for increased regulations on procedures used to prepare the statements. While companies could have continued to refine their internal measurement techniques to provide more accurate estimates of product costs and other performance measures, they decided instead to focus on the requirements for external financial reporting. This was done as the perceived costs of running two accounting systems were too high (Kaplan & Atkinson, 1997:8). This was not the case in Germany where separate accounting and management accounting staff have persisted (Ahrens & Chapman, 1999:43).

Thus, it can be seen that the management accounting system was created to promote efficiency in the key operating activities of the organisation, its main purpose being the provision of information for decision-making purposes and accurate product costing. It developed and operated independently from financial accounting that utilised a separate transaction-based system to record receipts and expenditures and to produce periodic financial statements for the owners and creditors of the organisation. This then is the traditional view of the historical development of management accounting.

The Neo-classicist view differs only in the time frame generally attributed to the development of the costing techniques. Neo-classicists fall within the paradigm of economic rationalists (Fleischman, 2000:597). The reason for the failure of standard costing to gain widespread acceptance, for example, is purely one of cost benefit according to the economic rationalists. Traditional historians used as their main source published materials, whereas Neo-classicists based

their conclusions on research in business archives. The purpose of widening the scope to archives, is to find not only evidence of the form of past accounting records but also to gain some idea of how those who prepared and used the accounts regarded them (Carnegie & Napier, 1996:7). This enabled them to trace costing techniques of prime cost calculations and overhead allocations to much earlier periods in history.

In conclusion, the following statement by Loft (1995:24) encapsulates the traditionalists' view rather well,

"...they share a rather passive view of cost and management accounting as a set of techniques serving the goals of the organisation and adapting as necessary to serve changing business needs. Accounting is seen as progressing in an evolutionary way, becoming constantly better over time" (Loft, 1995:24).

2.3 The Littleton School

The earliest Twentieth Century discussion of management accounting history is the material on cost accounting in Littleton's ***Evolution of Accounting to 1900*** (Johnson, 1984:14). Littleton equated management accounting with cost accounting and viewed the purpose thereof simply as a means of attaching costs to products for matching and income determination purposes. Techniques used by management accountants, which he described as contrivances, were regarded as being independent from the organisational context in which they were practised and were used alike in large and small organisations. Johnson (1984:14) states that other prominent authors considered to be part of the Littleton School are Garner (1954), Solomon (1952) and Sydney Pollard (1965). Their ideas show a dominant concern with the mechanical, procedural and technical aspects of accounting. Cost accounting is, above all, a bookkeeping practice, necessitated for purposes of financial reporting. According to Littleton, past cost and management accounting practices, which he traces from the Middle Ages to the early Twentieth Century, are purely techniques that presaged the need for product costing for purposes of financial reporting (Johnson, 1984:20).

This interpretation of the Littleton school is supported by Carnegie and Napier (1996:11). They state that in Littleton's publication, ***Evolution of Accounting to 1900***, the central theme is one of

progress of double entry bookkeeping, to the virtual exclusion of alternative approaches. The emphasis is on financial reporting at the expense of costing and the managerial uses of accounting information. Cost accounting is viewed through the 'distorting' lens of the double entry. Moreover, these authors state that Littleton's book represented all of the accessible English language history of accounting literature during a crucial period when academic teaching and research in accounting was expanding rapidly in countries such as the United Kingdom, the United States of America and Australia, and consequently had a significant influence on a generation of accounting historians.

Chatfield (1977:102) describes how proponents of the Littleton School attempted to force industrial accounts into mercantile accounts. They developed ways to transfer factory costs from one account to another within the double entry system, using inventory as a control account. There was no general understanding as to how this should be done because, until the Twentieth Century, most cost records were developed independently and not tied in directly to the double entry accounts system. They do, however, concede that the arrival of industrial establishments may have precipitated the immediate search for ways to do cost accounting but that this should not be seen as one of the achievements of the British Industrial Revolution (Carnegie & Napier, 1996:13). More recent research draws different conclusions. Fleischman and Tyson (1993:515) state that cost accounting practices during the Industrial Revolution were far more developed and widely utilised than many renowned scholars have believed.

2.4 War Time Economy in Britain

The importance and stature of cost accounting received a major boost in the United Kingdom during the turbulent period of the First World War and the years immediately following, when the practice of cost accounting spread rapidly. The demand for weapons and other equipment to support the war effort resulted in the Ministry of Munitions controlling over three and a half million employees (Loft, 1995:38). It was claimed to be the biggest manufacturing, buying, importing and distributing business in the world. Some factories were taken over by the government. In most cases the existing management was retained, but was dictated to by the government as far as the calculation of the contract prices were concerned. A cost plus method was used. Suddenly the measurement of costs became far more important and manufacturers were forced to look more closely at their costing systems. The government also set in place a system of

procedures for the calculation and checking of costs. Chartered and Incorporated Accountants, working from their professional offices, were employed to administer the new law and thus their expertise came to include costing.

After the war, clerks and senior costing clerks started the 'Institute of Costs and Works Accountants', the forerunner of the Institute of Cost and Management Accounting (CIMA, 2000:1). Their aims were, firstly, to be accepted as professional accountants, and thereafter, to develop and further the spread of scientific costing in post-war Britain.

2.5 Transaction Cost Methodologies

Transaction cost economics focuses attention on the relative costs and hazards of conducting transactions within alternative governance structures (Spicer, 1992:8). Alternative governance structures include markets or hierarchies (firms), and different control structures within firms. Transaction cost theory asserts that the concentration of diverse economic activities within large corporations is viable only when managerial co-ordination of these achieve significant economies as compared to the aggregate result when the same operations are separately managed and co-ordinated through market transactions. Johnson (1983b:142), hypothesises that it is when the external market mechanism fails to determine prices, or capital allocations, that internal non-market information is required and developed. He states that there is a symbiotic relationship between market activity and managed organisational activity, and that it is important to understand this relationship in order to appreciate management accounting's significance. Chandler (1977:490) calls this "the visible hand of management replacing the invisible hand of the market".

The poor quality of markets and market information in the United States between the late Eighteenth and early Twentieth Centuries, explains the development of large conglomerates and the resultant sophisticated management accounting systems, as entrepreneurs and managers endeavoured to 'beat' the market. Johnson argues that it is important to note that management accounting did not develop merely as a by-product of the growth of the size in enterprises – it was an important factor in enabling the growth to occur (Loft, 1995:27). This was not the case in the United Kingdom where factory organisers faced very efficient and competitive markets for products and capital. Kaplan and Atkinson (1997:2) concur with this view as they state that the

origins of modern management accounting can be traced to the emergence of managed hierarchical enterprises in the early Nineteenth Century, such as armouries and textile mills.

Johnson and Kaplan (1987:93) contend that multidivisional companies became dominant, because the transaction costs of the organisational bureaucracy, including the costs of incorporating a management accounting function, were less than the costs of using the market. They also state that problems faced by large American corporations occurred because they were out of step with the international competitive market. Survival demands an urgent adaptation to a more flexible approach in the design of effective cost accounting systems, management control and performance measurement. This form of reasoning is described as 'Social Darwinist'. It assumes that organisations, like animals, will die out if they do not adapt to their environments (Loft, 1995:31).

The substance of management accounting then, is the demand for information to make economic decisions within a managed organisation, in relation to market alternatives. This is the lesson to be learnt from the study of management accounting history according to Johnson (1984:125). It is not the past or the current form of management accounting that is important. Rather it is management accounting's ability to provide information that will enable an organisation to keep close to the market, that is paramount.

2.6 Labour Process Methodologies

Other approaches to the study of management accounting history include the Labour Process and the Foucauldian approach, both of which form part of the critical methodologies (Loft, 1995:31). Critical management accounting is described as a way of conceptualising management accounting by focusing on the non-technical aspects (Roslender, 1995:65). Critical theorists see their role as being that of critics of accounting, either in itself, or with respect to its social and economic impacts (Carnegie & Napier, 1996:14). They view accounting discourse as being actively involved in social control and in conflicts between different classes of people. Accounting theories do not state an unambiguous truth that is value-free and independent of social and historical conflict (Chua, 1986:623).

Three important elements of critical theory can be identified that make it particularly relevant to management accounting research (Laughlin, 1987:483).

These elements are:

1. Critical theory links theory to practice in a dynamic way.
2. Critical theory sees critique, change and development as vitally necessary components of practically-based research endeavours.
3. Critical theory views social organisations in a historical and societal context.

2.6.1 Labour process theorists

Labour process theorists start from the perspective that organisational control systems are practical means through which capital exploits labour. Hence the emphasis is a detailed study of the ways in which workers are controlled in different organisational settings (Loft, 1995:32; Roslender, 1995:71).

Braverman, (1974:58), states ,

"It thus becomes essential for the capitalist, that control over the labour process passes from the hands of the worker into his own. The transition presents itself in history as the progressive alienation of the process of production from the worker; to the capitalist it presents itself as the problem of management."

The emergence and development of management accounting is not explained with reference to a search for economic efficiency: rather it is explained by changes in controls over the labour process, which changing phases of capitalism invoke (Hopper & Armstrong, 1991:406). These changes of control led to the development of particular cost accounting techniques as is evident for example, in the Lyman Mills Textile Factory in England. Loft (1995:32) relates how Johnson and Kaplan view the main role of cost accounting in this factory as a means to monitor the performance of workers, with the objective of increasing efficiency. Hopper and Armstrong believe, that, on the contrary, owners/management use this information to intensify labour through close disciplinary control and through the lengthening of the working day. They argue that the re-

organisation and restructuring of work in American factories was done in such a way that semi-skilled, as opposed to skilled labour, could be used. Workers could more easily be substituted for each other, in other words 'homogenised'. Knowledge about production was no longer the exclusive domain of the skilled worker, rather it became part of management knowledge. The rapid development of management accounting in this period, is seen both as a result of these changes and more importantly, as an enabling tool that facilitated this 'homogenising process'. Management accounting techniques such as return on investment and budgeting, provided a way for top management to manage local management. They in turn ensured that every possible method was used to remove slack and inefficiency at all levels of production, even to the extent of periodically laying off workers, despite subsequent social hardships (Hopper & Armstrong, 1991:408; Loft, 1995:33).

2.6.2 Foucauldian perspective

The Foucauldian perspective is similar to the Labour Process approach. Whilst Foucault was not directly involved in research into management accounting history (he was a professor of the History of Systems of Thought) his thoughts did inspire an alternative line of thinking.

Foucault was concerned about the development of 'disciplinary institutions' in which 'disciplinary techniques' were applied. He considered institutions such as prisons, armies, hospitals, schools and factories all alike in that all "arranged and organised people into categories, watching them and punishing them if they did not obey the rules" (Loft, 1995:35). The term 'disciplinary techniques' includes not only the recording of people's work, but also the geographical confines in which the work took place. In the case of manufacturing, factories were created where workers were arranged in small spaces so as to facilitate their surveillance and the creation of records about their work. Cost and management accounting is seen as a technique of surveillance and control (Loft, 1995:35).

An interesting thesis of this school of thought is that accounting recreates the organisation in a de-personalised way. It is a disciplinary technology that enables the prioritising of financial considerations above all other. Loft (1995:35), encapsulates this well in the following statement,

"Its peculiar characteristic is that it replicates the production processes and makes them visible on paper, (or inside a computer) and in monetary terms. Through this *monetarisation*, the virtual encirclement of the activity of work by financial measures is achieved."

The effects of the discipline are felt from the very bottom of the organisation to the top. The accounting system recreates the activities of the organisation in financial terms, thus enabling its control.

The labour process theorists have not gone unchallenged. Not all companies developed standard costing systems, the vehicle used to control labour. Boyns and Edwards (1996: 49) describe how in a large iron and steel manufacturing organisation, (Dowlais, 1866, referred to in paragraph 2.2, page 21), the company's top management instituted organisational arrangements which largely, though not entirely, absolved them of the need for direct involvement in relations with the vast bulk of the general work force. This was done through the appointment of agents, sub-agents and contractors and through systems to encourage self-regulation and discipline. According to Boyns and Edwards (1996:43) labour theorists adopt a very narrow definition of management accounting, simply that of control, whilst in their view it could serve a number of different ends, control being but one of them.

2.7 Towards an Organisational/Institutional Perspective

In recent years management accounting researchers have emphasised the importance of studying management accounting within its organisational context (Johnson, 1984:12-25; Hopwood, 1987:207-234; Dent, 1991:705-729; Scapens, 1994:301-321; Burns, 1999:566-596). The main thesis of this line of thinking is that management accounting should not be viewed as a craft or a technology that consists of a set of procedures and processes that continually result in it becoming that which it was not before. Rather it should be viewed as being 'embedded' within the organisational structures and processes.

" Accounting has emerged in a more positive way than the mere realisation of an essence. Indeed, in part, the present imperatives of accounting which can and do guide its development have emerged from the practice of the craft. And, in similar terms, accounting practice needs to be seen as playing a more active role in creating, rather than in merely enabling organisational endeavour.

Accounting change is as much a history of organisational construction as organisational realisation and enablement." (Hopwood, 1987:211)

Johnson (1984:15) states that change in accounting should not be viewed as an isolated phenomenon, largely internal to the technical craft itself, but rather as a result of social and organisational forces that originate outside the technical practice of accounting. By focusing on accounting's organisational aspects, accounting historians can use their understanding of past accounting practice to test modern accounting hypotheses.

Hopwood (1987:212-214) argues that management accounting practices can play an important role in the construction of an organisational order on the one hand and a social order on the other. Aspects of organisational order include strategy, structural approaches and segmentation of work. Aspects of social order are evident in the way that accounting reports are constructed so as to reflect a certain social order within an organisation. Seen from such a perspective, organisational options, decisions and actions, are seen as being positively shaped by the ways in which they intersect with accounting practices.

Within the organisation, be it in the private or the public sector, accounting developments are seen as being increasingly associated not only with the management of financial resources, but also with the creation of particular patterns of organisational visibility. What is accounted for can shape participants' views of what is important (Burchell et al., 1980:5). Burchell et al. argue even more strongly that in the formulation of all accounting techniques, policies and conventions, be they management accounting or financial accounting in nature, a particular view is adopted of human, organisational or social reality. Whilst such presumptions might have legitimised the accounting mission, their relationship to the realities of organisational and social life is questionable at best (Burchell et al., 1980: 6).

Similarly, institutions and cultures within organisations play a major role in shaping management accounting practices. Scapens (1994:316) believes that researchers should be encouraged to study the practice of management accounting as the outcome of institutional processes in which habits and routines evolve to give coherence and meaning to organisational behaviour. This method of research was applied to a case study of 'Euro-rail' made by Dent (1991:705-729). In this case study he plots the gradual change of an institutional culture that initially was firmly grounded on

engineering principles. As the environment in which 'Euro-rail' operated gradually underwent change, so did the need arise to review management style and operational practices. This necessitated the appointment of business managers who initially were appointed purely as consultants to report to the Board of Directors. Slowly their influence and power within the organisation grew until eventually they became the dominant driving force. The culture and institutions within the organisation had changed and with this change came new ways of doing business and new ways of reporting.

In a recent study regarding management accounting and change in the United Kingdom, Burns (1999:566-596), also emphasises the importance of understanding routines and institutions in an organisation as a prerequisite in the management of any form of change. Accounting practices are a routine feature of most business organisations and as such can become 'taken-for-granted', i.e. institutionalised. He illustrates this feature with reference to budgeting. In most organisations there will be rules concerning the production of budgets. These may be specified in a manual or simply passed from person to person. As rules become implemented, routines will emerge through remembering and repeating of past behaviour. In this way budgeting becomes an institution. An assumption that budgets are used, would be incapable of challenge, as it is a fundamental and 'embedded' characteristic of the organisation.

Burns does not argue that budgets serve no purpose or that they should be summarily abandoned. Rather, the point that he is making is that to engineer change, it would be necessary to understand the rules and routines of an organisation as they will shape the nature of change. Furthermore, it is difficult to unlearn 'taken-for-granted' assumptions. In such circumstances, processes of politics and power can be very important in shaping responses to programmes of change.

Burns describes how these processes led to the failure to implement a program of change within a chemical production and marketing plant. As a result of rapid technological change, the demand for new chemical products exceeded the ability of the company's development department to supply these products. Within the company there were shared assumptions about the nature of the business and of the importance of efficiencies, yields and contributions. There was a wide-spread culture of commercial awareness and shared assumptions that products had to earn contributions. All this was underpinned by routines of reporting and in daily conversations. These routines and shared assumptions were, however, not evident in the Product Production Department, (PDD).

The PDD was internally focused on the processes of chemical research, which were characterised as very slow and painstaking. The PDD's 'taken-for-granted' assumptions concerned chemistry rather than what such chemistry might contribute towards business earnings.

Consequently a new system of accountability was introduced in the PDD. This comprised time sheets for individual projects and a prioritisation of new products to be brought to market by agreed dates. This new system was imposed on the chief chemist who accepted the legitimacy of the new form of accountability and claimed that he welcomed the introduction of a system which was consistent with procedures used elsewhere in the company. However the chief chemist then proceeded to act as a buffer between the concerns of the managing director and the other staff of the PDD. The new systems had little impact on the individual members of the PDD and did not change their way of thinking about chemical processes or instil a results orientation. Rather the new processes became a focus of conflict between the chief chemist and the marketing director. Ultimately these new processes were abandoned as offering little benefit to the PDD or to the rest of the company. There had actually been little change within the routines and institutions within the PDD and much of the chemical research function was eventually passed on to a newly acquired subsidiary.

An interesting case study by Ezzamel (1991: 1-30) examined power/knowledge relations and the role of accounting as a micro-technology and a disciplinary regime in the context of an attempt to supplant an incremental budgeting system by a system based on program financial contributions or non-contributions at a university. Included in this initiative was a drive to promote the Science and Technology division. The new budgeting system would have resulted in numerous redundancies and budget cuts to under-performing units. There was no negotiation involved between administration and the academics; it was purely a question of strategy. The immediate reaction was one of outrage and resistance. A concerned group was mobilised to negotiate on behalf of the disadvantaged. The membership of this group comprised mainly academics from the Economics, Accounting and Actuarial Sciences, who successfully proceeded to rebut all reasons for the proposed restructuring based mainly on accounting and actuarial principles and projections. The point being made is that those who master accounting knowledge can bring the activities of others, no matter how fluid, detailed and distant, both temporarily and geographically, under an instant and constant disciplinary gaze.

2.8 Conclusion

There are various views on the history of the evolution of management accounting. Carnegie and Napier (1996:9) state that the critical theorists tend to construct a caricature traditionalist who decontextualises accounting, who celebrates progress and thereby 'denigrates' the past, and who believe that the history of management accounting is in a large measure the history of civilisation. They state that if this were so, then the critical theorist is one whose history is written "through the verbiage of obscure theorisation, who eschews evidence for speculation and who writes to a paradigm" (Carnegie & Napier, 1996:9).

As can be seen from the above discussion, the various perspectives all focus on the same historical period, but attach different interpretations to the various developments. On the one hand we have the mere mechanical interpretation of the 'Littleton School' while on the other, there is the more sinister role of the discipline, where it is seen to be functioning as an agent in the 'homogenising' process of the work force, as exemplified by the critical theorists. All are convincing in their arguments and the researcher is left with a degree of benign cynicism – history is indeed coloured by the view of the observer. However, the recent writings and thoughts of researchers such as Hopwood and others, provide useful insights and possibilities in reconciling the various views. It is when management accounting is seen as being organisationally embedded, being crafted by the needs and requirements of the organisation from time to time, and indeed also being an agent for organisational change, that the various views can be reconciled. It is then possible that emerging management accounting processes and procedures within an organisation are best explained from a labour perspective point of view during one period of its historical development, and from a transaction economics process point of view during another. Whatever the views of the student or reader may be regarding the interpretation of management accounting history, the importance thereof should be recognised, as it is a truism that we can fully understand the present only in the light of the past.

The final word is from Hines (1988b:255),

"There is no full picture. We make the picture. That is what gives us our power."

CHAPTER THREE

PERSPECTIVES AND INFLUENCES OF THE CURRENT THEORY AND PRACTICE OF MANAGEMENT ACCOUNTING

3.1 Introduction

The practice, and even the name of the function of management accounting, can differ widely from country to country. Birkett (1998:494) notes that whilst the nomenclature surrounding the activity of management accounting may differ, the role of management accounting invariably involves resource management in some form or other. In this chapter some of the influences on the development of the practice of management accounting will be examined. These influences are mainly that of culture. However, issues such as the level of involvement of government in the economic affairs and the general level of economic development within a country are also important. There are also various perspectives at to what the role of management accounting should be, especially as it relates to developing countries.

Firstly, the role of culture and the effect of issues such as societal values on the development of accounting practices, will be examined in this chapter. Also considered will be the way in which culture may affect organisational performance and the implementation of accounting changes. The section will be concluded with brief references to case studies made of Aborigines and the indigenous Indian population in Canada to establish how the images of ownership and performance, which to a large extent are captured and reflected in accounting records, can contribute to conflict and misunderstandings. An attempt will be made to establish the relevance of these case studies to the South African context.

Secondly, the practice and development of management accounting in various countries will be studied. The discussion will centre around the various spheres of influence that have been identified in the literature. These are the British, Franco-Spanish-Portuguese, Germanic-Dutch, United States and the Communistic (Wallace, 1990:6).

Finally, the issue of management accounting in developing countries will be discussed. Various perspectives that are held by theorists and practitioners, and in particular the socio-political content of accounting information, will be examined in the context of the accounting needs of

developing nations. The chapter will be concluded with reference to the South African environment and how all these influences and perspectives apply to the country and the effect that it may have on the research to be undertaken.

3.2 The influence of culture on management accounting systems

3.2.1 Introduction

In recent years culture has been identified as a significant environmental factor influencing the practice of accounting (Gray, 1985:12; Perera, 1990:2; Mathews & Perera, 1991:320; Fechner & Kilgore, 1994:268). The rationale behind the need to study culture more closely is based on the recognition of accounting as a socio-technical activity, i.e. it involves dealing with both human and non-human resources or techniques, and the interaction of the two. Carnegie and Napier (1996:14) state that there is growing recognition of the impact of culture on the accounting environment of an individual country. Whilst the technical aspect of accounting is less culturally dependant than the human component, because the two necessarily interact, accounting cannot be free from cultural influence (Mathews & Perera, 1991:320).

Cross-national studies in accounting generally aim to explain variations in international accounting practices with reference to cultural differences between countries included in the examination. Cultural differences have a direct impact on how managers and employees make and accept decisions. In a survey made by Deloitte and Touche (1995:3), executives state that the primary challenge facing them as companies expand globally, is the cultural barrier. Further motivation for this brief discussion, is that the statement of concepts clearly accepts the fact that accounting is organised differently in different countries and cultures (IFAC: 1994:3).

Culture is defined in the OED (1984:177) as: "customs and civilisation of a particular time or people". This definition is somewhat vague, but does recognise that each national grouping has its own distinct culture. Other definitions of culture include, "an expression of norms, values and customs which reflect typical behavioural characteristics" (Mathews & Perera, 1991: 321) or "the collective programming of the mind which distinguishes the members of one human group from another" (Hofstede, 1984: 13) and "it is to the human collectively what personality is to the individual" (Perera, 1989:143). Perera (1989:143-151) further contends that:

- national culture reflects shared values of most members of a nation
- organisational culture comprises the additional values shared by most members of an organisation, and
- occupational culture encompasses the values acquired by those belonging to a distinct occupation such as accounting.

3.2.2 Hofstede's Analysis of Societal Values

During 1967 and 1973, Hofstede conducted an extensive study on a large multi-national corporation that had branches and subsidiaries in many different countries. The head office of this company was in the United States of America. One hundred and seventeen thousand questionnaires were completed from sixty-six countries (Hofstede, 1982:46). In this study Hofstede attempts to identify cultural differences between different countries that he groups into four dimensions (Hofstede, 1982: 65-210).

These dimensions are:

large versus small power distances;
individualism versus collectivism;
strong versus weak uncertainty avoidance, and
masculinity versus feminism.

Each of these dimensions will be briefly discussed (Hofstede, 1982: 65-210; Mathews & Perera, 1991:320-323; Van Meer, 1993:15-16; Fechner & Kilgore, 1994:267-268).

Power distance reflects the extent of inequality between superiors and subordinates. In a high-power distance culture, a person in a higher position in the organisational hierarchy makes the decisions and the employees at the lower levels simply follow the instructions. In a low-power distance culture, employees perceive fewer power differences and will follow a superior's instructions only if they are in agreement or if they feel threatened in any way. Among high-power difference countries are Spain, France, Singapore, Mexico, Brazil and Indonesia. Examples of cultures with a low-power distance are the United

States of America, Israel, Austria, Denmark, Ireland, Norway, Germany and New Zealand.

Individualism refers to a state where employees attach higher importance to personal and family interests than to the organisation. On the other hand, **collectivism** refers to the notion that the interests of the organisation should have top priority. Employees in a culture that values individualism usually assess situations in terms of how decisions will affect them personally. The most individualistic cultures include the United States of America, Australia, the United Kingdom, Netherlands, Canada and New Zealand. Cultures characterised by a very high degree of collectivism are, Columbia, Pakistan, Taiwan, Peru, Singapore, Japan, Mexico, Greece and Hong Kong.

Uncertainty Avoidance is the extent to which uncertainty is avoided in a culture. A culture with a high level of uncertainty avoidance attaches importance to employment stability and a low level of stress. Denmark, the United States of America, Canada, Norway, Singapore, Hong Kong and Australia tolerate a high level of uncertainty. Uncertainty avoidance is high among employees in Israel, Austria, Japan, Italy, Argentina, Peru, France and Belgium.

Masculinity is the relative importance of the qualities associated with men, such as assertiveness and materialism. **Feminism** is associated with quality of life and nurturing. Masculine societies define male-female roles more rigidly than do societies with a high degree of femininity. Masculine societies include countries such as Japan and Austria. Countries portraying more feminine qualities are Norway, Sweden, Denmark and Finland.

3.2.3 Relationship between Social Values, Accounting Values and Practice

Gray (referred to by Mathews & Perera, 1991:324; Van Meer, 1993:18; Fechner & Kilgore, 1994:267) developed the first comprehensive accounting-culture model that links social values with accounting values, and this in turn impacts on accounting practice. In addition to Hofstede's social value dimensions, Gray identifies four accounting values (Mathews & Perera, 1991:324; Van Meer, 1993:18-19; Fechner & Kilgore, 1994:269).

These are:

professionalism versus statutory control, (professionalism),

uniformity versus flexibility, (uniformity),

conservatism versus optimism, (conservatism)

secrecy versus transparency, (secrecy).

Professionalism is stated to be the most significant accounting value as it relates to a preference for individual judgement, the maintenance of professional self-regulation and an active standard setting role, as opposed to a system of compliance with prescriptive legal requirements and statutory control (Van Meer, 1993:18). **Uniformity** is a preference for the enforcement of prescribed uniform accounting practices between countries and for a consistent use of such practices over time, as opposed to flexible reporting. **Conservatism** is a preference for a cautious approach to measurement, so as to cope with the uncertainty of future events. Finally, **secrecy** relates to a preference for confidentiality and the restriction of disclosure of information about the business only to those who are closely involved with its management and financing, as opposed to a more transparent, open and publicly accountable approach (Van Meer, 1993:18; Mathews & Perera, 1991:324).

Employing Hofstede's culture-based societal value dimensions, Gray postulates a number of accounting relationships (Van Meer, 1993:19-23; Mathews & Perera, 1991:324; Fechner & Kilgore, 1994:269). Gray's hypothesis suggests that of the four Hofstede dimensions, **uncertainty avoidance** and **individualism** are the most influential dimensions in relation to the accounting subculture dimensions (Fechner & Kilgore, 1994:268). He suggests that the accounting practices of authority and enforcement appear to be the dimensions of **professionalism and uniformity**, whereas the accounting subcultures most relevant to measurement and disclosure appear to be the dimensions of **conservatism and secrecy** (Fechner & Kilgore, 1994:269).

In Mathews and Perera (1991:325) the relationship between these societal values, accounting values and accounting practice are illustrated as in Diagram 3, page 38.

3.2.4 National Culture

Diagram 3: Societal values and accounting practice

SOCIAL VALUES	ACCOUNTING VALUES	ACCOUNTING PRACTICE
Individualism versus Collectivism	Professionalism	Authority
Power Distance	Uniformity	Application
Uncertainty Avoidance	Conservatism	Measurement
Masculinity/Feminism	Secrecy	Disclosure

Source: (Marthews & Perera, 1991:325)

Differences in accounting practice in Continental European countries, particularly France and Germany, and Anglo-American countries, have been explained in terms of the above framework (Fechner & Kilgore, 1994:273). In France and Germany, there are many governmental requirements imposed upon the profession that have greatly influenced the development of accounting practices. In France there is the General Accounting Plan, prescribed by the government, and in Germany accounting systems have been developed based on enforceable legal prescriptions.

In contrast, the Anglo American countries display a preference for individualism, professionalism and masculinity and are short-term oriented (Smith, 1998:65). They are less reliant on legal prescription and have highly developed, influential professional bodies. The implications of this kind of orientation are (Smith, 1998:65):

- an emphasis on market processes, so that organisations themselves resemble markets, rather than the more structured entities like those in France and Germany. The market philosophy dictates that control in organisations will be based on competition between individuals, a feature of both the United States of America and the United Kingdom companies.

- an emphasis on the individual, even though the characteristics of a culture cannot be adequately described in terms of individuals.
- an emphasis on managers rather than workers which may result from masculinity and individuality, a combination of which results in managers being attributed almost hero status, and being viewed as decision makers who shape the world; a situation which contrasts with that of cultures of non-Anglo-Saxon origin.
  (In Germany, it is the engineer who assumes the stature of the 'culture hero')

Differences in culture orientation are also to be found in Japan and China (Smith 1998:66). In Japan the workforce aspires to join the permanent work force with life-long employment. Peer group control is more important than individualistic management. The consequence of this is that the United States theories of management emphasising managers and not workers, do not transfer easily to the Japanese group-controlled environment. The non-mainland Chinese (Hong Kong, Singapore, Malaysia), have established successful business ventures despite operating under a system alien to that based on the United States management theory. Their organisations are usually small, founded on personal relations and with very strong family ties. This is consistent with Hofstede's framework of individualism, cost focus, thrift and the paramount importance of family loyalty. Smith (1998:66) postulates that these characteristics should stand them in good stead with the gradual privatisation of main-land China.

3.2.5 Culture and Organisational Performance

Chow et al. (1991:209-226) studied the effects of culture on manufacturing performance. The focus of the study was to establish the extent to which the individualistic versus a collectivist culture of employees, affected manufacturing performance. A laboratory experiment was conducted on one hundred and ninety-two volunteer undergraduate accounting majors in their last year of study. Half of the subjects were United States nationals enrolled in a large metropolitan university in the United States. The other half were Singapore nationals enrolled at a university in Singapore. (In terms of Hofstede's study, Singapore is one of the most divergent countries from the United States on individualism).

In the experiment the independent variables were cultural individualism, work interdependency and pay interdependence. The dependent variable was performance. The experimental design

involved subjects having to translate numbers, arranged in triplets, into alphabetical letters based on a predetermined key. One half of each group was manipulated in such a way that their performance would be dependent on the other members in the group. The work and pay structure of the other group were based solely on individual performance.

As part of the experiment, the subjects were asked to complete a questionnaire designed to establish if there was a relationship between culture and nationality as far as the individual societal value was concerned. For this purpose the researchers used the same questionnaire as used by Hofstede. The result was a confirmation of Hofstede's finding. Thereafter, the researchers formulated five hypotheses (Chow et al. 1991:214).

Each of these will be listed inclusive of the finding:

1. A worker's cultural individualism, the extent of interdependent worker workflow interdependence and the extent of inter-worker pay inter-dependence have both independent and interactive effects on performance.
   Result: *national culture and management control have independent, but not interactive effects on performance. The hypothesis was therefore partially accepted.*

2. Workers with low individualistic cultural orientation, perform higher when workflow and/or pay are dependent and lower when workflow and pay are independent.
   Result: *hypothesis rejected.*

3. Workers with high individualistic cultural orientation, perform higher when workflow and/or pay are independent and lower when workflow and pay are dependent.
   Result: *hypothesis partially accepted.*

4. When there is workflow and/or pay dependence, workers with a low individualistic cultural orientation out-perform workers with a high individualistic orientation.
   Result: *hypothesis partially accepted.*

5. When there is workflow and/or pay independence, workers with a high individualistic cultural orientation out-perform workers with a low individualistic orientation. Result: *hypothesis rejected.*

The researchers conclude that the results do not refute the possibility of a specific system being effective in highly diverse national cultures. They also conclude that, irrespective of national culture, interdependencies induced by the control system among employees affect performance.

3.2.6 Culture and Accounting Change

The difficulties in implementing successful accounting change were discussed with reference to two case studies undertaken by Burns (1999:566-596) and Dent (1991:705-729) (paragraph 2.7, page 29-30). Argyrus and Kaplan, (1994: 85) identify three processes necessary to implement successful accounting change and to overcome the barriers that exist at individual and group level.

These are:

1. Education and training to ensure that the logic and necessity of the new approach is accepted.
2. The commitment and sponsorship of key members within the organisation.
3. Alignment of incentives, so that systems and structures in place facilitate, reward and reinforce effective change.

These three processes were not applied when the National Department of Health and Social Security in England endeavoured to implement change in the way resources were allocated in the health services. Preston (1995: 284-285) discusses an attempt that was made to introduce management budgets into a district in the National Health Service in England. The National Department defines management budgeting as an enabling tool that will result in better service to patients by helping clinicians and other managers make better-informed judgements about how the resources that they control can be used to maximum effect. The administrators and medical profession viewed this motivation with scepticism. To them the intent was purely one of budget cuts and a device that would impinge on the medical freedom of the clinicians. Ultimately, the entire national initiative to introduce management budgets was suspended because of the conflict

it caused between national and district managers and the entire medical profession. This example illustrates that the outcome of the budgeting process is, in part, determined by the meaning that it holds for people and the culture within which it is placed.

Preston (1995:284-285) states that culture should not be viewed as a separate element of an organisation that can be moulded or changed. Rather culture constitutes, or is, the organisation. Individual behaviour or change that transcends the current order must be accepted by other members for any meaningful change to take effect.

3.2.7 Colonialism and Culture

In this section two examples of opposing cultural orientations brought about by colonialism and the resultant effect of these differences on the various population groups will be discussed. It is acknowledged that these examples are not of South African origin, or even African for that matter, but it is the view of this researcher that there are many similarities that can be transferred to the South African scenario.

Gibson (2000: 289-306) studied the effect of accounting systems on the Aborigines in Australia and argues that the cultural orientation of western accounting systems is not compatible with that of the Aborigines. In fact, she states that accounting can be seen as a tool for Aboriginal dispossession both in the past and the present. She describes how John Batman, one of the early pioneers into Australia, landed on a site near Melbourne in 1835 and presented to the Aborigines a piece of white parchment, making them understand that he wanted black marks put on it. They were quite willing to oblige him, because he had given them wonderful presents of blankets, mirrors and knives. They did not know, however, that they were supposed to have conveyed to him 600,000 acres of country between Melbourne and Geelong. They were indeed incapable of knowing it, because no Aboriginal has ever thought of men as creatures who owned land from which others could be excluded.

Gibson (2000: 200) argues that accounting concepts of 'ownership' and 'control' are foreign concepts to Aborigines. An amazing similarity with western culture, but also with a stark difference, was the issue of trade and transactions. Whilst Aborigines were traditional hunter-gatherers', exchange transactions did take place. Trade was an important feature of Aboriginal

social interaction. According to Gibson, records reveal a continent-wide network of trade routes. Whilst the transaction involved the exchange of gifts, the spirit in which this exchange took place is the issue to reflect upon. The person involved gained prestige and influence, not from what was acquired, but from what was given away! In this way Gibson (2000: 295) states, "the principle of reciprocity led to a continuous balance of advantages in which power and authority was gained through the act of giving".

A similar case study was conducted by Neu (2000: 268-288) in which he examined accounting and accountability with regards to the Indian population of Canada. He postulates that accounting techniques and calculations are implicated in the colonisation of Canada's first inhabitants. The accounting techniques that he refers to are:

1. Accounting as a technology of government;
2. The 'hardware' and software" of colonialism;
3. Colonialism and genocide.

Accounting as a technology of government refers to the policy of containment. The objective was to contain the land use of Indians by means of gifts through the encouragement of intensive farming methodologies. The nature and size of the gifts were determined by their output and by the accounting techniques that were used to establish this. The 'hardware' of colonialism refers to arms and ammunition while the 'software' refers to techniques such as accounting, which were used as disciplinary tools. Colonialism and genocide refer to the effects of containment. The scarcity of land inevitably led to under-nourishment and starvation, but most astonishingly, a bounty system was also established whereupon settlers were rewarded for the number of Indian scalps that they could deliver. Again, it was accounting numbers that determined the reward.

The issue at stake was that the incentives instituted were all based on a culture that was foreign to the Indians. These incentives emphasised individualism and a break from tradition and even from the extended family. The genocide that resulted was as much a result of cultural incompatibilities as it was of physical killings.

3.2.8 Conclusion

What are the similarities that can be transferred to the situation in South Africa? The South African society is made up of many different cultural groupings and was aptly named the 'rainbow nation' by former President Nelson Mandela. The reality of the business environment in South Africa is that corporate culture, to a large extent, reflects Anglo-Saxon and Continental management cultures. These cultures emphasise individualism and masculinity in terms of Hofstede's framework. The work force within these organisations predominantly reflects cultures of collectivism and femininity.

The issue of land ownership is pertinent. Whilst this right is enshrined in the South African Constitution, it is in conflict with the cultural heritage of the indigenous people of South Africa. The issue of collectivism is also relevant. Few would argue that the leaning of the majority of people in South Africa is towards this societal value. These fundamental cultural differences are probably at the root of some of the discord and distrust that exists from time to time within the business environment. As stated by Galhoffer et al. (2000:381), the dominant attitude of the West to cultures other than its own, is distinctly negative. Accountants should be conscious of the communicative and constructive nature of financial reports. They create a reality that could be interpreted in different ways by people with different cultural pre-dispositions.

3.3 Management Accounting as practised in different countries

3.3.1 Introduction

As mentioned in the introduction to this chapter, this section will focus on the five spheres of influence as described by Wallace (1990:6). It has been suggested that significant differences exist between Anglo-American countries and Continental European countries in terms of their patterns of accounting development (Mathews & Perera, 1991:328). It is these differences that will be investigated.

The first sphere of influence to be examined will be the countries of the former communistic block as represented by China and Russia. Thereafter, continental Europe, which will include both the

Germanic and Franco spheres of influences, will be discussed. This will be followed by a description of management accounting practices in the United Kingdom and the United States. This section will be concluded with reference to calls made by various practitioners and theorists for common management accounting systems and for a universal corporate language (Bromwich & Bhimani, 1994:16; Shields, 1998:511).

3.3.2 Management Accounting as practised in the former Communistic Block

The discussion on this section will be rather brief as very little management accounting control systems were in operation in the former communistic states. In such states the primary objective of accounting was the accountability and stewardship necessary to fulfil the needs of a planned economy (Jones & Xiao, 1999:48). These authors state further that, usually, a uniform accounting system was prevalent with the aim of integrating financial information into a national economic plan. As already mentioned the discussion in this section will be limited to Russia and China as representing the two largest countries in the former communistic block.

3.3.2.1 Management Accounting as practised in Russia

Russia is a country striving to take advantage of the opportunities that are currently presented to it. The Perestroika of 1985 and the dissolution of the Soviet Union in 1991, have had a significant impact on progress towards a full-market economy (Morrison, 1993:18). In Russia, accounting simply did not exist; only bookkeeping, which was considered to be a lowly profession. Morrison (1993:19) argues that in the move from a centrally planned to a market economy, a cultural change is taking place. She explains how western accounting firms see this as an opportunity to expand their influence and are opening offices in Russia and transferring accountants and auditors to these offices to assist in developing the profession there.

The development of management accounting systems in Russia appears to be lagging behind the advances made in financial accounting. The United States Institute of Management Accountants makes reference to a crisis in accounting caused by the lack of a visible professional organisation, the hampering indifference of bureaucracy and an acute shortage of qualified accountants (Morrison, 1993:19).

Morrison (1993:20) concludes her discussion with reference to various catalysts to economic growth that she believes could be diverse. These include:

1. International pressure at macro level from the western governments who have invested money in the knowledge transfer process and wish to see economic stability.
2. International pressure at micro level from foreign holding companies. It is these companies that will demand greater accountability and will demand information for decision-making purposes.
3. National pressure from government authorities desperate to attract foreign investment.
4. Pressure to survive at organisational level for newly privatised enterprises in a market economy.
5. The Russian people themselves, one hundred and fifty million of them. An interesting feature of the new era in which Russians find themselves, is that every citizen has been given vouchers to purchase shares in any company of their choice. The challenge to provide a suitable company is itself a strong incentive for companies to perform.

3.3.2.2 Management Accounting as practised in China

China has a population of almost one and a quarter billion (Jones & Xiao, 1999:48). The sheer enormity of size, coupled with the apparent propensity of the Chinese towards hard work and thrift, and seen in the light of economic reforms that have recently taken place, create substantive possibilities for economic growth and global market increases. The importance of China in the global economic arena of the 21st Century cannot be underestimated.

China's accounting system is currently undergoing a complete revision as a result of a decision to adopt business practices used in most other countries. Since 1978 the social economic structure has gone through changes. This reform process transformed the economic structure from a centrally-planned and controlled economy to a market-orientated economy with a socialist characteristic (Davidson & Gelardi, 1996:58).

The discussion of the development of management accounting in China is based on the original version of an article by Jones and Xiao (1999: 48-50) that was published in the magazine for Chartered Management Accountants in January 1999, in summarised form. They describe two main developments up to the period of 1978 worthy of note from the point of view of the development of management accounting:

1. The introduction of the 'work team' concept in 1950. Groups of workers were responsible for achieving planned production and costs.
2. The introduction of the 'internal profit' system in 1960. Although this profit was not market-related, as the government set prices for costs and sales, it did provide an incentive for greater throughput.

1979 saw the advent of the open-door policy and economic reforms. Many United States firms formed joint ventures with state-owned organisations. This enabled them to import western management accounting technologies, which on the one hand improved joint venture accounting techniques and, on the other, had a knock-on effect on domestic accounting. In 1985 an accounting law was passed that granted accounting the highest possible legal recognition. Of importance was the fact that the law defined accounting as an important part of management.

A further important development was the introduction by the Chinese Government of Economic Responsibility Contracts (ERC's) and Internal Responsibility Contracts (IRC's). These were designed to control and motivate enterprise management. They involved the management of a state-owned enterprise attaining an agreed level of sales and profit, upon which it was then taxed. In return, the enterprise had autonomy to manage its business operations. A consequence of this system was that enterprises developed management accounting techniques, such as budgeting and standard costing, to help them meet targets.

The authors conclude their discussion with reference to recent proposals put forward which aim to facilitate the development of management accounting. One is the establishment of legislative support for the application of management accounting. A second calls for the establishment of a professional organisation similar to CIMA and, lastly, the establishment of benchmark practices and the issuing of authoritative management accounting standards.

3.3.3 Continental Europe

In this section brief reference will be made to various European countries and their management accounting control systems, followed by an in-depth discussion of the practice in France and Germany as they are considered to be the dominant influences in Europe.

3.3.3.1 Italy, Netherlands, Nordic Countries and Spain

Macintosh (1998:495) argues that religion strongly influenced business practices in Europe, including accounting systems. He states that in Italy management accounting control systems were noticeably conspicuous by their absence. The predominance of close-knit, private family firms motivated by secrecy and tax avoidance, mitigated against the implementation of any such control systems. In contrast, countries such as Germany, France, Netherlands and Belgium had a strong tradition of bureaucratic governance and paid a lot of attention to management accounting control systems. The Netherlands, according to Macintosh (1998:496), had a strong leaning towards normative-prescriptive theory and preferred a pragmatic approach to industrial development and management control systems. The Nordic countries (Sweden, Denmark and Finland) imported a mixture of concepts and thinking from both the Germanic and Anglo-American traditions (Macintosh, 1998:496).

Blake et al. (2000:129) conducted a survey among management accounting practitioners in Spain. Their survey revealed the following:

1. Spain had a national accounting plan similar to the one used in France. This plan included a costing section that was, however, considered to be outdated and only 9% of the respondents used it.
2. Most respondents had university degrees in a relevant discipline, of which economics featured highest 39% (Accounting only 2%).
3. In response to a question as to how much Spain had to learn about management accounting from different countries (Germany, the United States of America, Japan, France and the United Kingdom), Germany ranked highest.

4. A range of innovative management accounting techniques was being applied. These include customer profitability analysis, ABC, total quality assurance, Just-in-Time (JIT) and flexible manufacturing systems.
5. There was a move away from the formal recording objective towards a planning objective.

3.3.3.2 Management Accounting as practised in France

One of the most critical differences regarding the development of management accounting in France, is that it evolved outside of the influences of financial accounting. The practice of management accounting in France is said to have originated approximately seventy years ago, and has continually been adapted to meet the demands of management (Lebas, 1994b:471-487). Lebas argues further that French management accounting operates in an environment where state intervention is strong, where about one third of the economy is state owned or state directed and where spending budgets, as opposed to profit budgets, are more prevalent.

All accounting events in France are based on a General Accounting Plan or more specifically, a 'Plan Comptable General' (PCG), as instituted by government. This plan establishes a chart of accounts to be used by all companies (with certain industrial variations), in order to record accounting events and transactions and from which published financial reports and tax returns can be derived. The structure of the account codes within the chart is organised in such a way that the published profit and loss of a French company is one which relies upon an analysis of costs, not by their function or purpose, e.g. manufacturing, distribution, administration, but by their nature, e.g. materials, labour, external charges, depreciation, etc. (Roberts, 1995: 44-46). Cost of sales and gross margin are not reported. Roberts further explains that cost accounting, 'comptabilite analytiqe', is explicitly decoupled from financial accounting within the PCG itself, and subordinated to it. This feature of French accounting is in contrast to the tradition in the United Kingdom, where costs and financial accounts are integrated, and the published profit and loss accounts are functionally presented.

Roberts also suggests that management accounting did not grow out of cost accounting in the same way as it did in the United Kingdom. Until recently, there has always been difficulty in translating the term, management accounting, into French. The traditional phrase used in France

to describe the techniques and practises of reporting on management control, has been 'control de gestion', literally meaning 'management control'. The absence of the word 'accounting' in this phrase is significant as it indicates that accounting numbers traditionally have a more limited role in French reporting systems. In more recent years, the phrase 'comptabilite de gestion' has become more popular, and relates more meaningfully to management accounting (Roberts, 1995:44-46).

An interesting feature of French cost accounting, is the existence of numerous cost pools for the allocation of indirect costs. These cost pools or 'analytical centres' are defined in terms of only one output or service measure. If the centre provides a number of outputs, then it be must be broken down into smaller centres, which do have homogeneity in terms of the output measure. Mevellec (1995:12) states that this French method of cost allocation is undoubtedly a form of ABC that predates the Kaplan era in the United States.

The PCG provides only a general outline of the cost accounting framework. For more unique type of organisations such as aviation, telecommunications and electronics, differentiated cost accounting charts have been developed (Roberts, 1995:46). The PCG is used mainly for budgeting and budgetary control purposes and allows performance evaluation to be made against accounting numbers.

Lebas (1994b: 471-487) states that almost all French companies also use another approach to managerial reporting and performance evaluation which does not depend essentially on accounting numbers. This approach has its roots in ideas and concepts developed by the industrial engineering community in France. French businesses, as in Germany, have a long tradition of being led, not by accountants, but by engineers. In a recent study made by Roberts (1995:46), at least 50% of managing directors in France are engineers by profession or training.

This approach involves the creation of a 'tableaux de bord' for a business. This tableaux collects key information needed for steering or piloting of the business. A 'tableaux de bord', can be likened to the dashboard of a car. All the information contained in the various panels of the dashboard tell the driver about the current state of the car. The information collected by these 'tableaux' consist of a coherent set of selective ascending and descending information that feeds the various levels of management and includes both financial and non-financial information.

Different 'tableaux de bords' have been developed and standardised per industry type (Lebas,1994b:485). Mevellec (1995:14) states that what is of interest for the management accountant is the fact that these instruments effectively represent an operating model of the firm. He believes that the development of such an operating model is a prerequisite for the design of any new costing system.

This brief reference to French management accounting practices is relevant to the research being undertaken for two reasons. Firstly, the 'tableaux de bord' has many similarities to the balanced scorecard performance measurement technique developed by Kaplan (1994:257). The incorporation of financial and non-financial indicators in performance measurement would be one of the criteria characterising the fourth stage of development of management accounting, which is also central to the 'tableaux'. Secondly, ABC and management, is also pertinent to the fourth stage because of its strong emphasis on resource management and the elimination of non-value-adding activities. As already mentioned, this technique could have had its early beginnings in France with the establishment of numerous homogenous cost pools for the allocation of indirect costs. Of further interest is the reference made to the 'tableaux de bord' by Uliana (1994:85) in his discussion on the future development of management accounting in South Africa. He argues that this technique would be useful to the developing sector of the South African economy. This type of thinking is also supported by Perera (1990:148). In his study of the Sri Lankan accounting practices, he argues strongly that a formalised, legalised approach is more appropriate for developing nations.

3.3.3.3 Management Accounting as practised in Germany

In Germany, those who work as management accountants are known as 'controllers'. The word originally comes from the American 'controller' or 'comptroller', but has now been absorbed into the German language (Ahrens & Chapman, 1999:42). Germany has a long history of industrial efficiency and heavy involvement by banks in ownership. This meant that sophisticated management accounting control systems were in place from a very early stage (Macintosh, 1998:495). In contrast to Britain, where accountancy is organised as a profession, management accounting training in Germany is largely part of university education. The majority of controllers in Germany would have completed a degree course and post-graduate studies in business economics. These studies last up to six years. In these courses controlling is offered as a

specialisation. The study of Controlling at universities can be very abstract (Ahrens & Chapman, 1999: 42).

The dominant influence of universities on German practice can be seen in a number of ways. Controllers describe their role as making economic relationships visible by modelling resource flows. Theirs is an objective task that does not involve operational decision-making. They emphasise the need to make their capacity for systematic and distanced thinking available to operational managers, but stand back from any operational responsibility (Ahrens & Chapman, 1999:42). According to Ahrens and Chapman this is in contrast to the conception of management accounting as perceived by British practitioners who viewed the acquisition of a management accounting skill to be dominated by practical experience, not theoretical knowledge. British practitioners valued a personal portfolio of varied experience from different jobs.

As far as reporting is concerned, Ahrens and Chapman (1999:43) claim that German practitioners regard this as a very important part of their job. Their reports are generally comprehensive and highly technical in nature. In addition to this, controllers often see themselves as practitioners of micro-economic theories and draw on them in their day-to-day work in order to evaluate business proposals and reporting systems. Time spent on detailed theoretical problems, e.g., how to absorb joint budget variances or iterating reciprocal cost allocations between secondary cost centres, are not regarded as time wasting or nit-picking.

A number of the large manufacturing organisations in the Eastern Cape have German holding companies. It is probable that this relationship would have a direct bearing on the practice of management accounting in the companies concerned, and hence also the research question.

3.3.4 Management Accounting as practised in the United Kingdom

Unlike in France and Germany, management accounting in the United Kingdom has a strong professional base. The Chartered Institute of Management Accountants, CIMA, has managed and organised the profession since 1919 when the Institute of Cost and Works Accountants was founded. In 1975 the Institute was granted the Royal Charter which recognises CIMA as being among the top professional bodies in the United Kingdom and allows the Institute to qualify people as members. As a Chartered body, they are responsible for observing United Kingdom

government standards. Currently the Institute has over seventy thousand students registered and fifty thousand members in one hundred and fifty six countries (CIMA, 2001:1). The Institute has recently made significant amendments to its syllabus to allow for the changes that have occurred within the business environment and which have a direct impact on the practice of management accounting. These changes include a greater emphasis on organisational and strategic management, particularly with regards to resource management and they also support the fourth stage of development of management accounting as formulated by IFAC. In addition, there is a greater emphasis on case study reviews, which is perhaps the distinguishing characteristic of the profession in the United Kingdom, where the institutional/organisational impact on the practice of management accounting is recognised.

Ahrens and Chapman (1999:43) tabulate the differences between controlling as practised and managed in Germany and management accounting in the United Kingdom (Table 2, page 54). In contrast to France, there is no general accounting plan or 'tableau de bord' to guide and dictate practice. Neither is the management accountant viewed as the pilot of the organisation as in Germany. Management accounting is very much organisationally-based and wide differences in practice can occur from one organisation to another. As far as the call for changes within the practice of management accounting is concerned, the general consensus within academia and among practitioners is that, whilst there may be changes in the way management accounting is practised, very little change in the actual techniques being used has occurred (Scapens, 1999:1). This view is supported in a survey conducted of three hundred and three companies in the United Kingdom (Guilding et al., 1998:584). The issues surveyed were the use of standard costing coupled with variance analysis and budgeting coupled with performance analysis. Their findings were that these systems continued to be widely used. Seventy-five percent of all manufacturing companies continued to use standard costing and the vast majority employed budgetary control systems.

Bromwich and Bhimani (1994:2) provide statistics that rank the United Kingdom 16th in a world league of competitive countries. The startling statistic was that measuring competitiveness on a scale that gives Japan a score of two hundred, and the United States of America a score of one hundred and twenty-five, the United Kingdom scored minus forty. The authors identify a number of important opportunities for management accountants in the United Kingdom (Bromwich & Bhimani, 1994:4-22).

Table 2: Differences between controlling and management accounting

United Kingdom	Germany
Dominated by professional Institutes	Dominated by universities
Non-relevant degrees common	Business/Economics degree expected
Study management accounting whilst working	Work after studying Controlling
Younger management accounting Trainees	Older graduates
Work experience the dominant learning experience	Understand systematic economic relationships
Emphasis on personal attributes and motivation	Emphasis on objective expertise
Professional disclosure of practice	Academic disclosure of economic representation
Professional discourse of practice	Academic discourse of economic representation
Communication is part of job	Communication is add-on to job
Management Accountant as change agent	Management accountant as 'Lotse', (ships pilot or navigator)

Source: (Ahrens & Chapman, 1999:43)

These include:

- the use of activity-based approaches where clear cost drivers for individual activities can be identified and where each activity can be demonstrated to be unaffected by the levels of the firm's other activities,
- the inclusion of non-financial indicators to monitor and plan performance, similar to the 'tableaux de borde' as used in France,
- the introduction of strategic cost accounting and the use of target-costing,
- the functioning of management accounting within operational teams,
- understanding the organisational context of management accounting.

They conclude their discussion with reference to the impact of globalisation and the need for management accountants to implement world class benchmarks.

3.3.5 Management Accounting as practised in the United States of America

As in the United Kingdom, Management Accounting in the United States is professionally based. The profession is controlled and directed by the Institute of Management Accountants (IMA). The Institute has two certified programs, Certified Management Accountant (CMA) and Certified in Financial Management (CFM). Both these programs require the student to meet certain academic and experiential criteria (IMA, 2001:1).

The practice of management accounting in the United States is similar to that in the United Kingdom. Johnson (1992:31), describes two periods that can be distinguished within the practice. Prior to 1950, management information responded to the imperatives of a competitive environment that was defined by real technological and economic forces outside businesses. After 1950, the order reversed. Businesses began to pursue pseudo imperatives of competition that were defined by their own accounting-based management information systems. Whilst this internal focus initially succeeded, it is also seen to be the main reason for American companies losing their competitive edge, particularly with reference to Japanese companies. Johnson (1992:31) states that relevance was not lost by using improper accounting information to manage. It was lost by improperly using accounting information to control business operations.

Calls for change within the practice of management accounting have come mainly from American theorists and academics. Most of the 'new technologies', (ABC, balanced scorecard, benchmarking, life-cycle-costing, etc), have originated from the United States. Curiously, business organisations have been slow to embrace these new technologies. Recent studies suggest a level of diversity. At one level, certain enterprises seem to positively adopt altered accounting techniques for a variety of reasons, including the changing manufacturing and service environments. Yet, at another level, many organisations do not perceive a need to shed their traditional view of the usefulness of accounting information, nor do they reveal any inclination to link accounting techniques to aspects of the changing business environment (Bromwich & Bhimani, 1994:207).

3.3.6 Conclusion

There is a school of thought that states that management accounting practices in European nations, including the United Kingdom, are gradually converging on a common model, the global model (Shields, 1998:510). Companies in various parts of the world face similar threats and opportunities. The removal of geographical barriers to trade and manufacturing, the increase in technology and the implementation of sophisticated information systems must inevitably result in management accounting systems converging. Shields (1998:511) argues that convergence is a dynamic process that does not necessarily end with identical management accounting practices in all firms. On the contrary, while national differences in management accounting practices will narrow, there will be increasing divergence in management accounting practices along industry lines. Bromwich and Bhimani (1994:16) argue that a common universal corporate language is necessary, so that managerial performance in very different locations can be compared. This will facilitate planning throughout the organisation to be linked to corporate strategy.

Finally, as has been demonstrated, the accounting principles and practice underlying management accounting control systems, financial measurement and disclosure in different countries and regions depend on such historical variables as colonial experience and/or colonial affinity (Wallace, 1990:6). Viewed from a South African historical perspective, the accounting environment should be influenced mostly by accounting principles and practices emanating from the United Kingdom. The influences of Continental Europe and the United States, however, cannot be ignored as these regions have significant investments in South Africa. It would be

interesting to note the effect, if any, of these influences on the practice of management accounting in the organisations to be investigated. This influence will be included as a variable for statistical analysis purposes.

3.4 Management Accounting in Developing Countries

3.4.1 Introduction

This section examines the role that accounting can have, and indeed should have, in the overall endeavour of a nation to achieve an equitable distribution of its wealth. The government and central planners of developing countries often find themselves in a 'catch twenty-two' situation. On the one hand, the majority of the population are poor, largely unemployed and are their constituency of power. On the other hand, a disproportionate percentage of the nation's wealth is centred in the hands of a privileged minority and more importantly, if western style capitalism is to be the driver of growth, then the means to achieve that is also, to a large extent, vested in this minority. The challenge facing the leaders of the day is to try and find a balance between these two extremes. It is the view of the researcher that recent developments in accounting, in particular the mega-accounting paradigm, with its emphasis on accountability and a wider stakeholder base, can have a positive influence on the overall endeavour of a nation to achieve a more equitable distribution of its wealth.

South Africa is often referred to as a developing state. This section examines the characteristics of developing nations and establishes how, if at all, they apply to South Africa. Thereafter, attention is focused on the socio-political content of accounting information and how the accounting needs of developing nations differ from those of developed nations. The issue of the allocation of scarce resources will be examined and brief reference will be made to social accounting. This is followed by a discussion of micro and macro-accounting systems where an attempt is made to reflect the views of various scholars as to the desirability of the implementation of uniform accounting systems in developing nations. Finally, the issue of the social constructing role of management accounting is discussed. This section is concluded with reference to the South African environment in which the research is to be undertaken.

3.4.2 Characteristics of developing countries

Generally, developing nations are defined as Third World countries that do not form part of the western world, centred on the United States of America, or the eastern world, with Russia at its centre (Perera, 1989:142). Perera states further, that developing countries are often characterised by heterogeneous groups that vary widely, have high debt burdens and exhibit a dualism where a modern sector and a traditional sector exist side by side. These characteristics are also evident in South Africa.

In most developing countries there is a direct government involvement in economic activities (Mauders et al., 1990:88). Private capital investment is weak and the principal growth comes from the public sector (Briston, 1990:205). Direct government involvement in South Africa is evidenced in the numerous state-operated organisations and in programmes such as the Reconstruction and Development Program (RDP) and various other Public Works Community-Based Poverty Alleviation Schemes.

Another common characteristic of developing countries is the scarcity of resources (Samuels, 1990:67). An imbalance exists between the needs of society and the means available to satisfy those needs. Developing countries exhibit varied levels of poverty and wide disparities in the rate of development within each country (Wallace, 1990:3). They have a future, but few have a past, at least in an accounting context. They are structurally different from developed countries and may need to develop along different lines (Wallace, 1990: 3).

Developing countries are not homogenous. They differ in terms of gross national product, population, culture, degree of literacy, economic and political systems; all factors that have an impact on the nature and extent of financial and management accounting reporting systems.

3.4.3 The socio-political content of accounting information and the accounting needs of developing nations.

It is accepted that accounting information is not politically neutral. It is processed by people who have an interest in the outcome. One of the basic objectives of annual financial statements is to satisfy the needs of a wide range of users. Managers, however, unless required to do so, will only

release information that is in their interests. Professional accounting bodies often appear more concerned to satisfy the wishes of those who provide the information, rather than those to whom it is directed (Samuels, 1990: 75). A dilemma in countries of the developed world and also in those in the developing world, is that accountants are hired by private clients. They are hired as auditors, consultants and tax experts and it is the private clients who pay them. It is unlikely that the accounting profession in either developed or developing countries will take a voluntary initiative when it comes to pressing for greater disclosure and accountability. Maunders et al. (1990:89) argue that were the profession to do so, it would almost certainly lose its legitimacy in capitalist society. It may be asked why companies should release this information, much of which is politically sensitive. The answer to this line of thought is that a company is not a law unto itself. It only exists because the laws of the country allow this form of business organisation.

Accounting information has the potential to play a very important part in many of the debates on the issues affecting economic development. Many authors have argued that Western accounting systems are not relevant for developing nations. Samuels (1990:67) argues that attempts to improve the accounting systems and standards in developing countries are inadequate and only of marginal relevance to the needs of those countries. He states that the financial reporting system that is the model behind international accounting standards, is designed for situations in which investment decisions are made by financial institutions and private investors in the market place where there is a well organised and efficient capital market. This is not the situation in developing countries where public corporations dominate economic activities. Authors of financial management textbooks used in Western educational institutions, unequivocally state that the goal of financial management is to maximise shareholders' wealth. This is a very narrow view, particularly when considering that in developing nations, private shareholders have a very small role to play in the national economy.

What then are the accounting needs of a developing nation? E.L. Shaw, president of the Certified Public Accounting profession of Liberia, (he was also a deputy minister of state), emphasised that professional accounting should provide information for policy formulation and the allocation of scarce resources (Samuels, 1990:69). This kind of accounting is known as social accounting and involves the measurement of economic activities and their effect on society. Mathews and Perera (1991:350), divide social accounting into four categories:

1. **Social responsibility accounting**. This type of accounting recognises the potential conflicts between companies and other interest groups in society. It refers to disclosures of financial and non-financial, quantitative and qualitative information about the activities of the enterprise. Examples of this kind of accounting would include disclosures about employees, products, energy usage, pollution prevention and support for community activities.

2. **Total impact accounting** refers to the aggregate effect of the organisation on the environment and attempts to measure, in monetary terms, the total cost (both private and public) of running an enterprise.

3. **Socio-economic accounting** is concerned with the approach to project selection and the control and evaluation of projects in the public sector, and covers the topic of cost benefit analysis. The outcomes of this analysis should be of interest to national policy makers.

4. **Social indicators accounting**, which is a technique used mainly in the public sector to attempt to estimate the effect of expenditure. It is easy to measure the costs or inputs in the public service, but more difficult to measure the output.

Samuels (1990:78) states that if a system of social accounting could be developed and implemented, it would help to reduce what is referred to as alienation. Alienation is generally seen to be the expropriation of capital providers' wealth, local community wealth, customer wealth, employee wealth and wealth from nation states.

It is not only external reporting that must be improved. Far more importantly, the quality of information available to decision-makers in both the public and private sector must be improved (Briston, 1990:202). In order to achieve this, Briston argues that it is important to broaden both the education and training of accountants and also the nature of work which they undertake. Concentrating scarce, skilled manpower in the field of reporting to shareholders and the performance of compliance-based external audits, is not necessarily the best use of available manpower. Neither is it the best way to improve the accounting system within the economy (Briston, 1990:202). More attention should be focused on public sector financial and management accounting, and internal auditing.

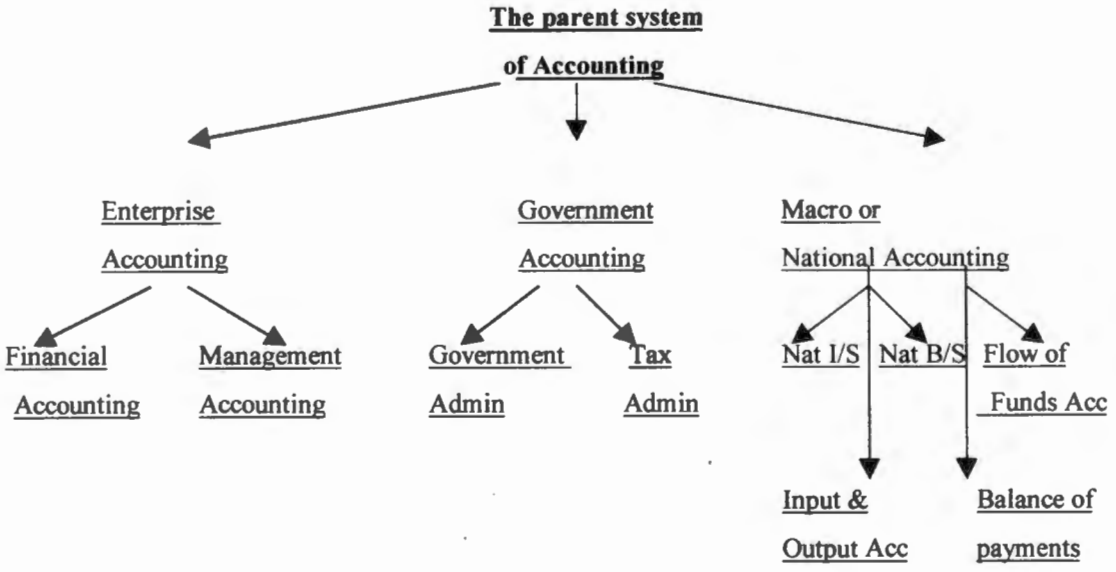
3.4.4 Micro versus macro-accounting

There is a school of thought that believes that the accounting demands of a nation go beyond those required for making economic decisions connected with a business enterprise's operations. These demands include information needed to make governments and managers of public enterprises account to the people whom they serve, and when properly applied, can enable a nation to decide on the efficient allocation of its scarce resources. In order to achieve this, a uniform system of accounting, that integrates both micro- and macro-accounting, is required (Wallace, 1990:20). Macro-accounting deals with the national accounts and includes the national income statement and balance sheet, the flow of funds statement, input and output accounting and balance of payments. Micro-accounting comprises enterprise and government accounting.

In capitalist societies, the efficient allocation of a nation's scarce resources is assumed to be achievable by the invisible operation of the market mechanism, and not by national planners. The need to regulate the economy is met through aggregates which come from statistical sources outside enterprise accounting reports (Wallace, 1990:20). In such a setting the three arms of a country's accounting system operate independently from each other. Enthoven (1981:219), has advocated a unique type integration of the three arms so that they can retain their individual characteristics, but still align their systems to the same definable national specifications. His thoughts are illustrated in Diagram 4, page 62.

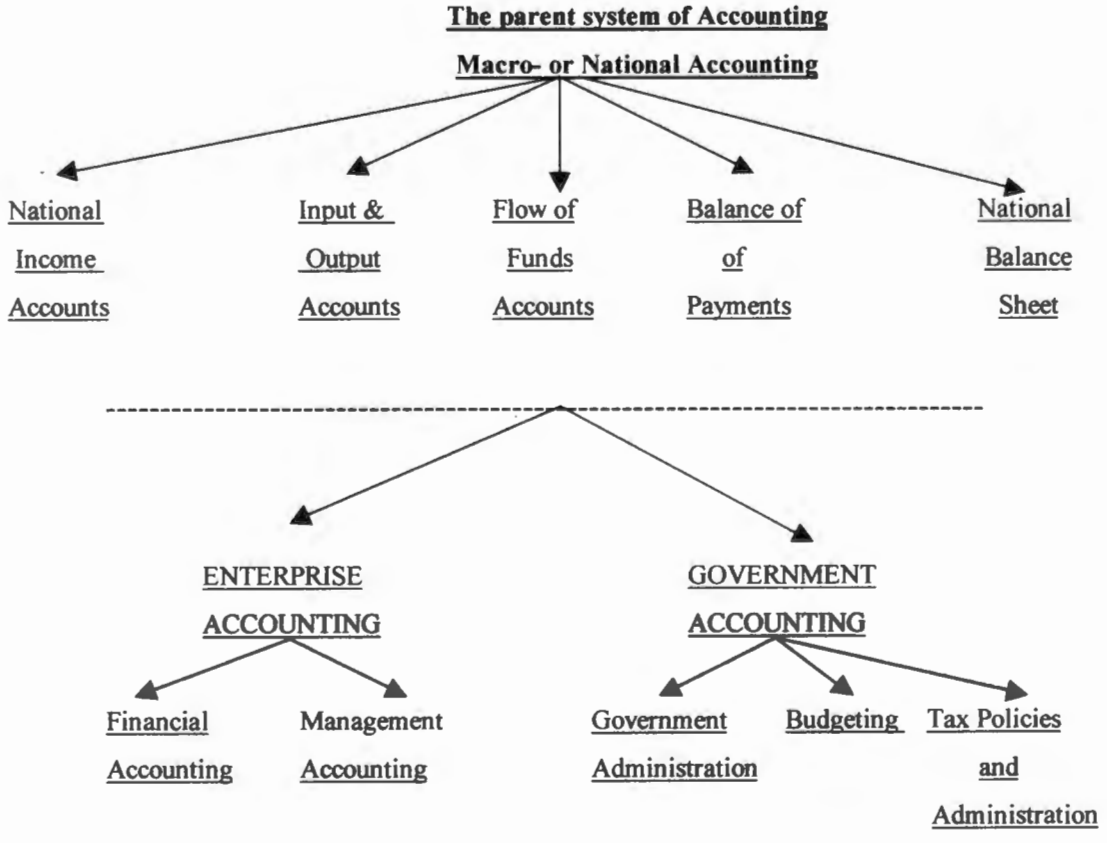
In those countries where national planning is a deliberate method by which government attempts to allocate national resources, macro-accounting cannot be seen as a counterpart of a micro-accounting system, but as a superior system served by micro-accounting (Wallace, 1990:23). In this context, micro-accounting systems operate within the norms and codified system of macro-accounting.

Diagram 4: Micro-accounting system



Source: (Wallace, 1990:20)

Diagram 5: Macro-accounting system



Source: (Wallace, 1990:21)

A macro-accounting system is considered to be a higher level of accounting, fulfilling for a nation similar functions to what micro systems do for individual companies. Many of the systems operating in continental Europe and communistic countries follow a uniform pattern (Wallace, 1990:21), hence the need for a national, codified chart of accounts. Perera (1989:141-158) argues that, because of special circumstances, such a uniform system of accounting is the only alternative available to developing countries. He developed several hypotheses to support his argument. Among these are:

1. The heavier the government's involvement in economic affairs, the greater the need for accounting uniformity,
2. The more urgent the need for economic development by a central government, the greater the desirability for uniformity,
3. The lower the level of accounting education in a country in comparison with industrialised countries, the greater the need for uniformity,
4. The more the members of society identify their own interests with the interest of society, the greater the acceptability of uniformity,
5. The larger the power distance in a society, the greater the acceptability of uniformity,
6. The less the availability of trained management, the greater the need for uniformity.

Despite the overwhelming academic arguments that developing countries should adopt the macro-based uniform system, only the former French countries in Africa have done so (Wallace, 1990:23). In South Africa, the micro-based system is in operation. This is probably due more to the British colonial influence than to anything else. The use of a macro-system is, however, intuitively appealing. Most of the hypotheses developed by Perera apply to South Africa. Where accounting methods differ from country to country, these differences should be justified by differences in the environments, and not merely by accidents of history.

3.4.5 The social constructing role of Management Accounting

It is generally accepted that if something gets measured it gets controlled. It follows that changes in accounting practices could influence the attitudes and behaviour of operational managers and thus could result in organisational change.

"Accounting has the potential to have organisational consequences beyond merely facilitating, in a technical manner, the processes of decision making and policy formulation. By making visible what was previously unknown, it can open up different areas of the organisation for examination and debate. That visibility can also transcend different levels of the organisational hierarchy. What is accounted for can thereby shape the patterns of power and influence both within the organisation and without." (Hopwood, as quoted by Maunders et al., 1990:91)

It is particularly in the area of public sector enterprises that this social constructing role of management accounting could be utilised to influence the direction of economic development processes in developing countries. Maunders et al. (1990:91) suggest that the way to do this would be to involve operational level managers in continuously monitoring those social aspects of public enterprise performance that fall within their responsibility areas. At present, financial and technical considerations tend to dominate decision-making since they are the basis of the formal information systems present within these organisations. Maunders et al. (1990:91) argue further, that whilst 'social information' may be embedded in these systems, e.g. levels of employment and pollution implications, it is not directly linked with the evaluation of performance and could therefore be treated as of secondary importance compared with say, the achievement of a cost, output or time target.

3.5 Conclusion

South Africa is a developing nation that endeavours by means of its macro-economic policies, to attract foreign investment into the country. The result of this policy is that many companies operating in South Africa are subsidiaries or associates of companies outside the country, in particular Continental Europe, the United Kingdom and the United States. These links could be a major determinant in the type of management accounting practices employed and need to be considered when analysing the results of this research exercise.

How does the above discussion apply to South Africa? As already mentioned, many of the characteristics of developing nations are evident in this country. South Africa is still a young economy having had its first fully democratic election in 1994. The past few years have seen immense and far-reaching changes on all fronts, be they economic, social, educational or political.

Changes are still occurring and will still occur for many years to come as the country grapples with the inherited problems of the apartheid era such as poor economic growth, massive unemployment and unacceptably high crime rates. Demands placed on the government to deliver on pre-election promises often result in short-term solutions or legislative responses that do little to engender foreign confidence in the future of the country. The recently enacted liberal labour laws and affirmative action policies are an example of this tendency.

The South African economic environment is characterised by relatively high interest and inflation rates and capital markets subject to the whims of foreign investors who, without regard to consequences, withdraw large amounts of capital based on perceived risks which are often unrelated to the reality of the underlying economic fundamentals. The economy is still regulated to a large extent, although there has been a significant relaxation of exchange control restrictions in recent years. Privatisation of government-controlled enterprises, whilst a very sensitive political issue, is slowly taking place. On the micro-economic level, probably the biggest challenges facing business are those of poor productivity, the issue of affirmative action (already mentioned), the lack of skilled labour and a highly politicised and unionised work force.

It is the view of this researcher that most of the suggestions put forward in this chapter could be of benefit to South Africa. The implementation of a system of social accounting with its greater emphasis on accountability and the recognition of a wider stakeholder base, particularly as it relates to communities, is appealing. Furthermore, a number of public enterprises are included in the population to be interviewed, and although not directly related to the research question, it is the intention of the researcher to establish the extent and nature of the inclusion of cost-benefit analyses in the performance evaluation of these enterprises. A uniform, more regulated accounting system, could be of great benefit to the developing sector and is an exciting area for further research.

Finally, a word of caution is necessary. South Africa is desperately in need of real foreign investment in order to stimulate growth and create job opportunities. It would be naïve to believe that such investment would be forthcoming if the state had to take on a more directive role in the economy, as is perhaps suggested in this section. It would not be wise to tamper with the goal of financial management as being the maximisation of shareholder wealth for example, and still expect capitalist states to invest in the country. What is desperately needed is accountability and

changed patterns of managerial behaviour in state-owned enterprises and in the operation and management of government departments. If this could possibly be achieved through changed management accounting practices, urgent attention should be given to this need by practitioners and academia alike.

CHAPTER FOUR

PERSPECTIVES AND INFLUENCES OF THE FUTURE THEORY AND PRACTICE OF MANAGEMENT ACCOUNTING

4.1 Introduction

During 1994 IFAC commissioned a number of leading international academics and practitioners in management accounting to write a series of articles as to their views on the future development of management accounting for the decade to follow (IFAC, 1994:3). The series of articles was aptly named, ***A view of Tomorrow: Management Accounting in the Year 2004.*** In this chapter, these articles will be examined and an attempt will be made to extract the common themes expressed by the various authors and then to compare these with the conceptual framework of management accounting as formulated by IFAC.

Upon examination of the time frame of the formulation by IFAC of the various stages of development of management accounting and, more particularly, the conceptual framework, it is the view of this researcher that this theme booklet of papers was used as a foundation document for IFAC's formulation. The following observations regarding the authors are relevant:

- representative of a wide stakeholder base: academia, practitioners and researchers,
- international representation: Canada, Australia, South Africa, France, Italy, United Kingdom and the United States. (Germany is strangely conspicuous by its absence)
- stature and prominence of the authors.

These papers will, to some extent, inform the formulation of the questionnaire to be used in the research. It should be noted that while the titles of the various papers indicate the country of the author, the emphasis is on future perspectives and influences on the practice of management accounting from a global point of view. The country of origin will naturally be an influencing factor in each case, but it is submitted that, in the main, the authors focus on international issues common to all organisations as they face the challenges of surviving and prospering in the future.

4.2 An Australian view of Management Accounting in 2004

This first article to be examined was written by Maria Barbera (1994:5-19) a lecturer in accounting at the University of New South Wales in Sydney, Australia. She lectures at both the under-graduate and graduate level in both financial and management accounting and is an Associate Director of the New South Wales Division of the Australian Centre for Management Accounting Development (ACMAD), a centre that aims to move management accounting in Australia to the international state of the art. Her brief was to provide an Australian perspective on the future development of management accounting. She conducted a series of structured interviews with four leading management accountants, one each from academia, public practice, industry and the public sector. The questions posed and responses given, will be briefly examined.

Question 1

"Will management accountants have a role in 2004? If so, what will that role be in broad terms?"

All respondents were of the opinion that management accountants would still have a role in 2004, although this role would have undergone considerable change. The future management accountant would be part of the management team. Organisations would move away from a functional departmental type of structure, to a business process style of management. Management accounting is seen as being seamlessly involved in these various processes, and can no longer be viewed as a separate functional department. Management accountants would have to acquire a general business literacy in order to interface with all facets of the organisation. The public practitioner was of the view that management accountants would take on three important roles. At corporate level, where financial controls would become more and more important, this role would be to ensure that the whole organisation was moving as a single entity towards the corporate vision. At a decentralised level the role would be to add value to teams. Management accountants would also become consultants within the organisations, offering services on an ad hoc basis, upward to the corporate level and downward to the various business units.

Question 2

"What qualities will the effective discharge of that role require?"

While the qualities listed by the various respondents differed slightly, these differences related merely to the detail in which they were expressed. The bottom line was that management accountants would have to be multi-skilled. In particular, they would have to develop strong interpersonal and communication skills. Management accounting could no longer be a 'back room act'.

The following qualities were specifically mentioned:

- technical expertise in order to calculate the equation of resource use and value generation,
- a keen understanding of businesses and organisational processes
- a critical consciousness to their own work, i.e. they should evaluate their own contributions in terms of value added,
- analytical and organisational skills to partake in a redirection of organisational strategies,
- a knowledge of informational system design, process/industrial engineering, continuous improvement methodologies and marketing.

Question 3

"How do you see strategic directions being formulated and how will the management accountant contribute?"

The general view expressed was that the strategic role of senior management could not be delegated. The way in which strategies were formulated and implemented would, however, change. In the past strategies were often decided upon with minimal reference to financial information and with insufficient attention being paid to financial outcomes. Future strategic decisions would be based on a multi-layered knowledge, and it is in this area that important input would be required from the management accountant. Examples of the contributions required are modelling, sensitivity analysis, the quick and effective translation of physical business plans into monetary terms, business appraisals and assessment of risk levels.

Question 4

"Will the management accountant have an involvement in the effective employment of the enterprises' resources (tangible and intangible)? How?"

There was a significant divergence of opinion between the various practitioners on the one hand and the academic respondent on the other. The latter was of the opinion that this was pre-eminently the mandate of the management accountant, whilst the practitioners were of the view that this was a strategic decision, to be made by top management. They generally agreed that the management accountant should assist in this kind of decision making by the provision of relevant financial data. If the management wished to be involved in the effective deployment of an enterprise's resources, they would have to adopt a more strategic focus. In particular, they would have to become more sales and marketing oriented.

Question 5

"What will be the role of control/ How will control be effected?"

All respondents were of the opinion that control would be effected in real time through the efficient management of the various business processes. Management accounting would be embedded in this process control. Traditional forms of control such as variance analysis and standard costing would have disappeared from the scene.

Question 6

"Will decision support systems fall within the ambit of the management accountant? Or will most decisions be made by self-management teams who have, at the ready, all the information and expertise necessary?"

The public sector and industry respondent were of the opinion that decision support systems fell directly within the ambit of the management accountant. These systems were seen to be owned by the management accountant. Management accountants would determine and receive system outputs, develop system inputs and generally guarantee the quality of data. Financial data remained the prime basis for major decision-making at high level. The public practice respondent was of the opinion that decision support systems were primarily an Information Technology responsibility. The management accountant would be a user of the system. The academic respondent supported this view.

Question 7

"Can management accountants and management accounting technologies contribute to organisational change?"

Again, there was a significant divergence between academia and practitioners, with the exception of the public sector respondent. All agreed that management accounting technologies, if properly applied, could contribute to organisational change. The divergence related more to the issue of what a management accountant should be doing (that is the prescriptive view) and what they actually were doing (the descriptive view). The academic respondent was of the view that management accountants should always be focusing on change around the resource use/value generation chain and that this focus should contribute to change by bridging local and organisational perspectives. The practitioners expressed the view that management accountants had as much chance of being a driver of organisational change as everyone else. If they wanted to contribute to organisational change, they would have to become change catalysts rather than mere reporters. What is measured, causes change. If management accountants were to communicate different and critical measures to their internal customers and focus on why things were done, and why they were important, changed attitudes and processes would result.

The public sector respondent was of the opinion that the management accountant was in a strong position to lead organisational change. He described how in the United States this was already happening, where organisation-wide re-engineering through the shared services concept, was in fact being led by financial indicators.

Question 8

"Traditionally, management accountants have been pre-occupied with the supply of information. Will this role continue?"

All respondents agreed that this pre-occupation would continue, but with a different emphasis. Management accountants would be the architects of the type of information to be provided and of the flow of the information. In fact, the public practice respondent was of the opinion that by the year 2004, management accountants would be called 'management information providers'

Concluding remarks

When viewed from a prescriptive perspective, there is a considerable amount of consensus among the various respondents. Management accountants should form part of the management team. Their pre-eminent role should be that of the calculus surrounding the resource use and value generation equation over time. This view conforms with the fourth stage of the development of management accounting as formulated by IFAC. However, when viewed from a descriptive perspective, the general view expressed by the various practitioners is that management accountants still had a long way to go in developing a more strategic focus, in becoming more multi-skilled and in developing stronger inter personal and communication skills.

4.3 A Canadian view of Management Accounting in 2004

The Canadian view is partly based on the perspectives of Hughes Boisvert, a full professor in the Department of Accounting at the Commercial University of Montreal. Professor Boisvert has a PhD in Engineering Economic Systems from Stanford University and is a Certified Management Accountant. He has spoken at many conferences and published many articles. He has also written books on management control and on activity-based management and management control. The Canadian view is expanded further with reference to an article written by all the Faculty members in management accounting at the University of Waterloo in Waterloo, Ontario, Canada. Their teaching responsibilities include Undergraduate Masters and PhD courses in management accounting, cost management, control and information systems. Each has a wide variety of publications. These members are Professors H M Armitage, A Atkinson, D Kennedy, I McKillop, G W Russell and John H Waterhouse.

The views of Boisvert (1994:19-30) are summarised below.

The main thesis expounded by Prof. Boisvert is that the function of control will no longer be based on detection and monitoring, but rather on learning and guidance. While management accounting has changed in scope during the past ten years, and will change even more over the next ten years, the definition of management accounting will remain the same: that is to inform managers whose information needs have changed and will continue to evolve. When management is viewed as a system of learning and guidance, the information-decision sequence is replaced with

a focus on on-going interaction and on the integration of representation with action. In this context, he states that the purpose of management accounting is to provide managers with a representation of what they are doing and of what they intend doing. Managers need to know what the economic consequences of their action will be, with a focus on value created.

According to Boisvert, management accounting information in 2004 will be shaped by the changed business realities. These realities are:

Planetary competition:

Instead of only three or four highly competitive countries in the early 1990's, there will be ten to fifteen within a decade. Competition will no longer be product-based, but will involve processes, know-how, the ability to organise and adaptability. Innovative products will quickly be copied. However, a company's capacity to innovate and to adapt its know-how, which is intimately related to its culture, will not be as easy to copy. The organisation's culture will often supersede the culture of its host country.

Economic balance:

International trade will tend towards a state of balance. Countries will try and balance imports with exports. However there will be the poorer, developing nations who will remain exporters of raw materials and who will be strangled by the interest owing to their creditors. The gap between rich countries and poor countries will widen. An interesting point raised by Boisvert, is that trade in illicit drugs in 2004 will be a major factor and the resulting capital movements could threaten the economic equilibrium between nations.

The structural crisis

Organisational structures will tend towards flatter structures. Managers will become entrepreneurs.

Ethical and environmental reasoning

Pure economic reasoning will lead to the destruction of the environment. Governments and business organisations will have to take heed of the environmental issues.

New Information Technology and employee empowerment

While human creativity will no longer be restrained by technology, computers will still be developing and changing at an ever-increasing speed. Paradoxically, in a world of information, people will be uneasy at the thought of being constantly required to invent new management concepts. There will be a need for perpetual learning. The value of work will proceed more from its intellectual power and creativity than from physical effort.

Boisvert lists, and explains, ten features that will form the foundation of the new management accounting. These are:

The representation system inherent in information processing:

1. Management control systems will be based on learning and guidance, rather than detection and monitoring. The information system will no longer be used exclusively by a controller whose purpose is to detect deviations from plans. These systems will be accessible to all managers and will be user-friendly, interactive and updated daily. The challenge for management accounting will be to learn continuously through experience.
2. The approach to management control will be marked by confidence rather than distrust. Management accountants will have to move away from their traditional office-bound environment and learn to trust managers as they become facilitators of change.

The representation of the organisation:

3. The dominant representation will focus on processes and accounting by processes will become standard by 2004. ABC management systems will be all pervasive within the management culture of an organisation in its endeavours to eliminate waste and non-value added activities.
4. Communication will be lateral between managers.

Reading the market:

5. The market will provide several indicators. Organisational efficiency will increasingly depend on its ability to adapt its know-how and structure.

6. The target will be moving. This reality is the basis upon which the thesis of learning and guidance is formulated. It is also compatible with continuous improvement.

Managerial culture:

7. Managers will take over, and be the masters of, management accounting. As customers they will shape it to fit their own requirements.
8. The language used will be that of management. Management accounting will increasingly express itself in the language of activities and non-financial indicators.

Anticipated result:

9. Information will be highly selective and strategic. According to the traditional approach, the same financial information was produced for all organisations, no matter how they differed.
10. Presentation of results will reflect environmental and ethical considerations.

Boisvert concludes that the key factor that will shape management accounting in 2004 will be the organisation and its management. There will be continuous interaction between representation and action. By using economic models of behaviour, management accountants will provide management with a representation of their actions in the contexts of ethical and environmental reasoning. The controller will become a facilitator and a partner within an entrepreneurial team.

The view from Canada is supplemented by Armitage et al. (1994:31-38). Their views will be discussed comprehensively as they represent, to a large extent, the fundamental concepts of the fourth stage of development of management accounting as formulated by IFAC. Their view of a future framework for management accounting is illustrated in Diagram 6, page 76.

They argue strongly that management accounting will evolve as organisations react to pressures to be more customer focused.

In support of this they foresee four key developments in management accounting.

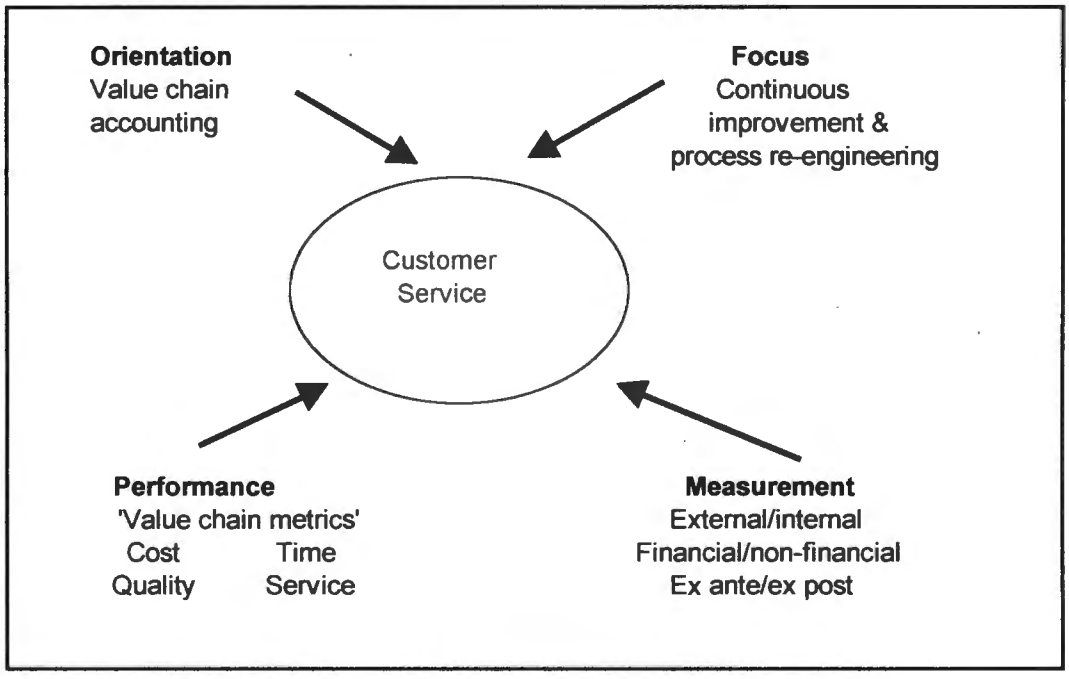
(i) An orientation towards value chain accounting,

(ii) The use of value chain metrics for performance measurement,

(iii) A focus on continuous improvement and process re-engineering,

(iv) A multifaceted measurement system that will collect and make available a wider range of data than is currently available.

Diagram 6: A future management accounting framework



Source: (IFAC, 1994:32)

Each of these developments will be discussed in further detail:

(i) Orientation

The authors believe that in the next decade organisations will move from hierarchical functional structures to process-oriented businesses. In this new structure, decision-making and accountability will be driven down to the lowest levels of the organisation. People within the

organisation will need to know how their work interacts with others in the value chain, and how their efforts contribute to the overall vision. **The principle role of the management accountant will be to assist cross-functional co-operation and to measure the success by which these value chain activities are conducted.**

(ii) Performance- 'value-chain-metrics'

The authors predict several areas of change in the provision of cost data by 2004.

- Cost numbers will be much more widely available at much lower levels within the organisation. Organisations will relinquish more power for decision-making to teams. **This means that teams will take over much of the planning, control and analysis that were part of the management accounting domain. Management accountants will act as advisors to teams** (Diagram 7, page 78).
- The quality of cost data will improve. The cost system in 2004 will be far more sophisticated and will include non-linear and weighted drivers that provide a better understanding of cost behaviour.
- A more robust 'balanced scorecard' for performance, which will include a combination of cost, time, quality and service will be developed.

(iii) Focus

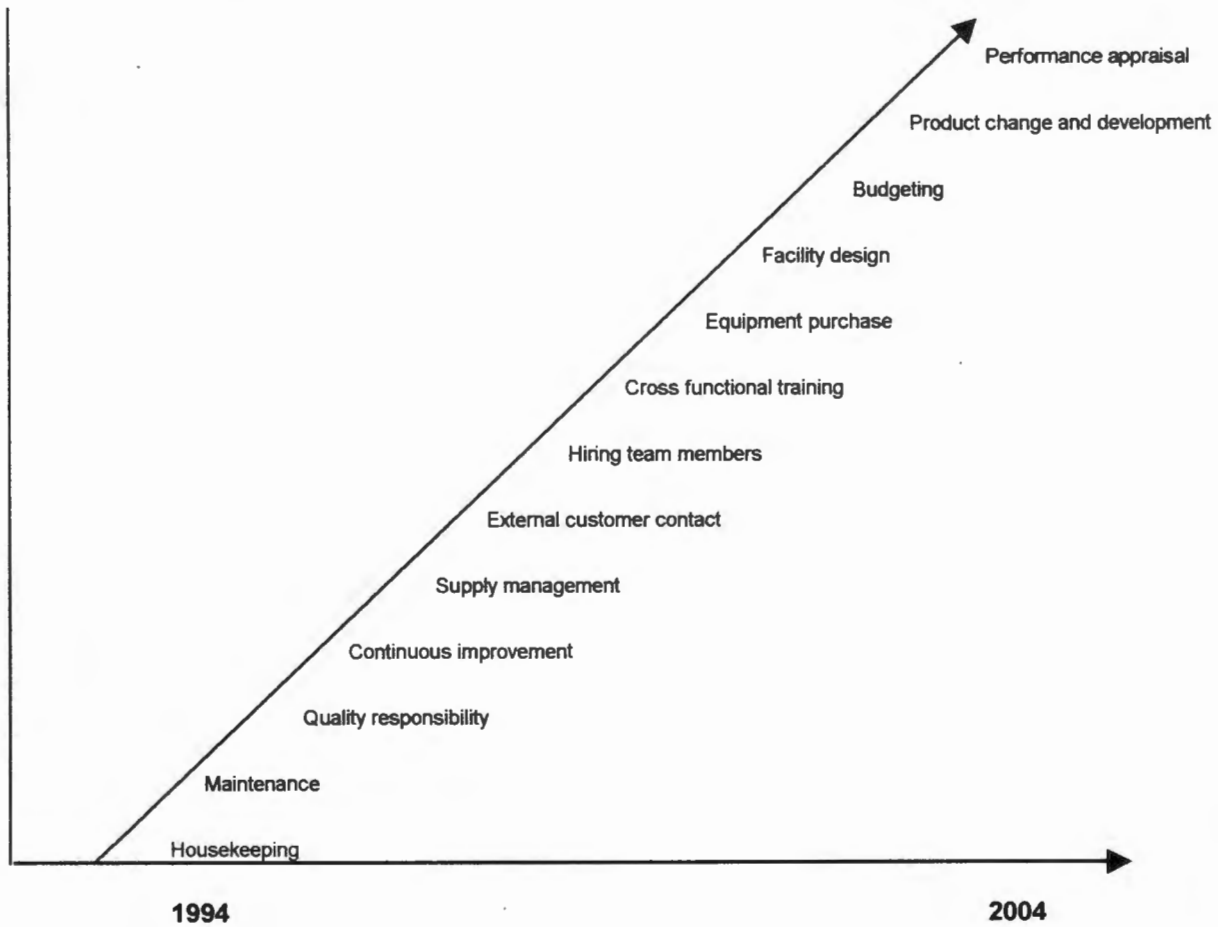
Organisations will have to look beyond continuous improvement to maintain their competitive edge. The 'low hanging fruit' has already been picked according to the authors. They also argue that unless an organisation is already a leader, no amount of continuous improvement will bring it up to world class levels. What is required is process re-engineering. Organisations need to radically rethink the business that they are in and how they manage their supplier/conversion/customer processes. The authors concur with Shank (paragraph 1.1, page 3) that a paradigm shift to strategic cost management is necessary.

(iv) Measurement

Cost, time, quality and service will be the foundation of management accounting that will tie strategic visions to operational performance. There will be other data that organisations will require for higher-order planning and controlling purposes. Table 3, page 79 provides examples of the measurement domain of management accounting systems in 2004.

The concluding remarks of the authors are that they concur with much of the literature that envisages a changed role for the management accounting function from policing activities and ownership of financial management systems to facilitation and technical support.

Diagram 7: Planning, control and analysis devolved to teams



Source: (IFAC, 1994:35)

Table 3

Examples of the measurement domain of management accounting systems in 2004

Planning (Other examples could be used)							
Financial Information				Non-financial Information			
Internal		External		Internal		External	
Ex Ante	Ex Post	Ex Ante	Ex Post	Ex Ante	Ex Post	Ex Ante	Ex Post
Anticipated capital and human resource requirements	Firms's past profitability	Forecasted industry and competitor profitability	Actual industry and competitor profitability	Targeted market iro Quality Flexibility Product design Price Service	Firm's performance iro Quality Flexibility Product design Price Service	Anticipated industry trends iro Quality Flexibility Product design Price Service	Actual industry performance iro Quality Flexibility Product design Price Service
Anticipated enhancements related to quality and time improvements	Past experience with regard to improvement initiatives	Expected industry and competitor pricing trends	Actual industry and competitor pricing policies	Anticipated impact of strategic on set up time capacity flexibility quality and volume	Firm's performance iro critical competitive factors	Anticipated competitor reaction to innovative models	Past levels of market demand

Source: (IFAC, 1994:37)

4.4 A French view of Management Accounting in 2004

The French view is expressed by Lebas (1994b: 39-58) who is a Professor of Management at the HEC School of Management in France and a freelance business consultant. He has taught at various other universities, including the Graduate School of Business at Stanford. He is the French representative of the Federation of Management Accountants of IFAC. He is also a member of the Editorial Board of ***Management Accounting Research*** and has published several books and many articles in international journals on management accounting, management control and performance management.

Professor Lebas introduces his discussion on management accounting with a warning by stating, that if management accountants do not give satisfactory answers to the needs of managers in the coming decade, then professionals such as engineers in information technology, quality managers, computer software experts, sociologists, and psychologists, interested in human development and team work, will step in and fulfil these needs. He also states very strongly that management accountants will need to become part of management in the next decade. Product costing or responsibility costing can no longer be the key issue for management accountants. Rather the focal point of their attention should be making sure that the costs, all the costs, are appropriate for the strategy that is being implemented. They must identify and contribute to the management of the causes of the existence of all costs. Lebas discusses four significant changes that will be required in defining and carrying out the management accountant's mission. These changes are:

- The changing mission of the managerial accountant;
- The changing context of that mission;
- New time horizons for that mission;
- A changing focus for the mission.

Each of these changes will be briefly discussed.

4.4.1. The changing mission of the Managerial Accountant

Lebas (1994b: 41) does not believe that the basic mission of the managerial accountant has changed in any significant way over the past fifty years. He makes reference to the concept of relevant costing, which effectively represented a departure from product costing for valuation purposes, to a decision support model, which is central to the mission of the management accountant. He makes an interesting comment regarding the origins of relevant costing and believes that it was taught in French universities at least ten years before it was popularised in the American textbooks, notably by Gordon Shillinglaw and Charles Horngren and later by William Vatter in Europe. He states that Andre Cibert had been teaching these concepts since the late 1950's in his course at the Ecole des Hautes Etudes Commercialis, and that his ideas remained confidential until the publication of his very influential ***Comptabilite Analytique*** in 1968.

An important element of a management accountant's mission is the measurement and monitoring of performance which is also part of a decision support system. Lebas believes that the concept of performance is changing rapidly, particularly in the light of the Total Quality Management approach. Performance is not only measured and monitored, it is now managed and constructed. Motivation of individuals is complemented by the development of goal congruence, a basis for collective achievement of the strategic objectives. While in the past performance was defined mainly in terms of financial criteria, future measurement techniques will have to take non-financial criteria into consideration. He likens a business venture to the planting and growing of a tree. Customers will look for a variety of attributes before buying the tree; the colour, shape, taste of the fruit and so on. These attributes were determined long before the tree started bearing fruit. Performance measurement should focus on all the processes involved and should include the journey from the beginning and not only the destination. Furthermore, performance should not simply be measured but it should be pro-actively created.

"The accountant must use his or her skills to contribute to the creation of the ex-ante context that will, before the actions are selected and implemented, maximise the likelihood that ex post results will be satisfactory." (Lebas, 1994b:43)

The management accountant should become an active participant in performance management as this precedes and encompasses performance measurement.

4.4.2. Changes in the context of the Management Accountant's mission

Lebas (1994b:45) also notes the changing structure of modern organisations, from tall, hierarchical structures differentiated along functional lines, to flatter structures where the need is for transfunctional co-ordination. He sees management accounting as one of the linking elements that supports the creation of performance, because it offers the simplest, best-structured communication tool, 'information highways'. Measurement can no longer be limited to the borders of responsibility centres. It must now focus on the processes that will satisfy the customer's expectations and demands.

The modern trend is for organisations to enter into partnership agreements with customers, suppliers and manufacturers. These agreements have changed the scope of the data with which the management accountant is working. It is now necessary for a management accountant to explore

the causal models that determine the costs in the supplier's process. The management accountant needs to have an integrated view, from the supplier to the customer. He or she must join the team of managers involved in value-chain management, across organisational boundaries.

According to Lebas (1994b:48) globalisation represents another major change in the context in which the management accountant operates. Management accountants will need to understand how competitors produce and market their products and where they remain vulnerable. He believes that management accountants should go beyond competitive bench-marking and become analysts of competition. They need to be able to account and manage foreign currency fluctuations as well as a variety of risks that to date have not formed part of their normal operating environment.

Other changes that have dramatically altered the operating context of the management accountant are new technologies of communication and information technology and the increased importance of service activities. Lebas (1994b:48) believes that the importance of services have completely modified the field of measurement and the ways in which measurement occurs. Management accountants on the cutting edge today are no longer focusing on the valuation of inventories, (the zero stock and Just-in-Time policy reduced the importance of such a valuation). They are looking at the process of delivery of the many-faceted services that the customers require.

4.4.3 A new concept of time and of time horizon

Lebas (1994b:49) describes this new concept of time and time horizon with reference to topics such as target-costing, life-cycle thinking, anticipatory crisis management and time discontinuity. In his discussion on target-costing, he believes that the management accountant should make a contribution in the early design phases of the product. This can be done by analysing past cost data about a product and then using this information to identify relations between costs and physical performance. While this causal view may not necessarily lead to the same understanding as that of engineers or sales people, the accountant's vision will be based on economic rationality and will contribute to the dialogue within the management team.

In arguing that management accountants should adopt life-cycle costing techniques, he refers to the manufacture of laptop computers as an example. These computers have an ever-decreasing

commercial life cycle, so much so that a producer would have to come up with a new product every six months simply to maintain market share. Instead of just thinking about manufacturing and selling costs, accountants will increasingly need to think in terms of product development costs, marketing development costs, and costs of product and facility phase-out.

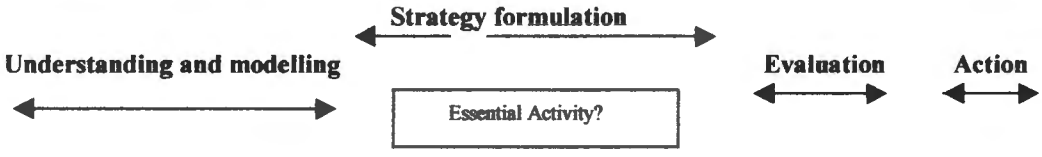
With regards to anticipatory crisis management and discontinuity of time, reporting intervals should not be based on calendar units of weeks or months, but rather according to the phases of all the products. This is rather an interesting argument, as it would result in profitability statements being provided per product and per month or week, thus providing a definitive distinction between management accounting reporting and that of financial accounting.

4.4.4 A new orientation, a new focus for the mission

Lebas (1994b:52) states that the time has come for the management accountants to reinvent their mission. This new mission should involve the development of a new information system based on the knowledge of causal relationships and on the need to become interventionist in managerial decisions. A new information system based on causal relation analyses should involve non-financial as well as financial information. While this is not a new concept, the balanced scorecard, as advocated by Kaplan, does exactly that. Lebas adds an interesting dimension to this mode of thinking. He believes that the management accountant should develop a system of 'tableaux de bord', which like the instrument panel of a car, helps a driver anticipate the needs of the car to keep it moving in the right direction (see discussion in paragraph 3.3.3.2, page 49). The management accountant should also develop measurement tools that in an ex-ante fashion would provide indicators of problems that could occur if certain actions are not taken timeously. Lebas says that understanding the links between non-financial information and financial information and incorporating them in the information system, are some of the most important challenges facing management accountants in the next decade.

Lebas concludes his discussion by providing a schematic view of the tasks and roles of the future management accountant. This view is reproduced in Diagram 8, page 84 as it encapsulates the organisational engineering role of the management accountant, which Lebas states should be the dominant role.

Diagram 8: The schematic view of the organisational engineering role of the management accountant



Source: (IFAC, 1994:55)

As can be seen from the diagram, the first step in this organisational engineering role is the identification of all the activities within the organisation. Thereafter each activity is evaluated in terms of consumption of resources, waste and performance. Strategy formulation follows and this is done by ranking these activities as either primary, secondary or non-value-adding. Following this, each activity is again evaluated in terms of the criteria listed under the evaluation column and a plan of action is formulated. The entire firm is thus represented as a network of processes and allows for such analysis as customer profitability, which previously could not be done. Lebas regards this organisational engineering role as the prime long-term focus of the future management accountant. It is also important to note that product costing is reduced to a secondary status in the overall mission of the management accountant. With regards to short-term performance, the role of the management accountant is increasingly seen as being that of a communicator of information for decision making purposes.

4.5 The Italian view of management accounting in 2004

The Italian view is expressed by Giovanni Azzone, an Associate Professor of Management Control Systems and Cristina Masella, a Research Fellow in the Accounting Department of Economics and Production, both from the Politecnico di Milano. Azzone has a doctorate in Management in Production and Management Engineering. His main research interests are in the areas of management accounting, strategic control and performance measurement with a particular focus on the impact of new technologies and new forms of competition. He is widely published in many international journals and has written a number of textbooks. Masella has similar qualifications and, besides research, teaches management accounting in the Faculty of Engineering.

As with the authors in the countries already discussed, Azzone and Masella (1994:59-70) introduce their discussion on the future role of the management accountants with reference to changes that have occurred within the business environment in which organisations function. They stress the imperative of firms being able to maintain a competitive edge in order to survive and discuss the importance of strategies such as flexibility, total quality management, time to market and environmental issues. In their view, the winning organisation in 2004 will be the one that can define as a first-comer, new sources of competitive advantage and still be able to manage the strategies listed above by rearranging their relative importance according to the evolution of customer needs.

As far as the future role of management accountants is concerned, they argue that any discussion should start from the basic consideration that management accounting is a costly activity. In the organisation of the future, the emphasis will continue to focus on the reduction of non-value-adding activities. The implementation of strategies such as computer aided manufacturing techniques and total quality management have, to a large extent, eliminated non-value-adding activities in the operational arena.

The focus in the future will be on the elimination of non-value-adding administrative and management activities, of which management accounting is one, particularly as organisations evolve into flatter, network type structures. The role of data collection will have been decentralised and will no longer be the responsibility of the management accountant. Azzone and Masella argue that data analysis and modelling will be the processes that management accountants will be involved in, although these roles will be shared by engineers, marketing and planning staff.

They argue further that management accountants will only be able to maintain their leading role in information management, if they are able to anticipate change by beginning to view engineers and planners as internal customers and thus produce the information that they need. Management accountants will also have to modify their attitudes. Precision or accuracy is not as important as information usefulness.

The Italian view is supplemented by a further article written by Professor Vittorio Lusvarghi, a professor in the Faculty of Economics and Commerce at the University of Modena. His views are

particularly useful in the light of his extensive practical experience in the field of managerial accountancy consulting. Lusvarghi (1994:71-84) states that management accounting should have a stronger focus on cash flow than is the case at present. Every management action will be measured in terms of free cash flow creation. Free cash flow creation can be considered to be the sum of value drivers. The company that can actively manage these will increase its cash flow and thus its value to shareholders. Management accountancy should focus on the value drivers that can create free cash flow for the business. In a capital intensive industry, for example, key factors will be the utilisation of capacity and, in general, of the capital assets. This would be the case for a telecommunication company that must use its assets at the maximum level. In a commodity industry, however, it is more critical to guarantee a good level of customer satisfaction.

4.6 The view from the United Kingdom

The view from the U.K. is expressed by management accounting practitioners on the one hand, and by an academic, on the other. This division will form the basis of the discussion to follow.

4.6.1 The view of the practitioners

The authors of the two papers concerned are Thomas Sheridan who is an Oxford MA and a fellow of both CIMA and of the Institute of Management Consultants (IFAC, 1994:91). He has over thirty-five years experience in management accountancy and has held every job in financial management from cost accountant to finance director. The second paper is written by Marcus A. Sherwood Jenkins who holds a fellowship with CIMA. He has been an active practitioner since 1979 and is a well known writer and lecturer on management accountancy (IFAC, 1994:96).

The first point made by Sheridan (1994:90-96) is that there is a difference in nomenclature in Europe where the term 'Controller' refers to the traditional term of management accountant, as used in the United Kingdom. Despite the differences in names, it is his view that practices will remain fairly similar whatever the nationality or educational background of the practitioner may be. He further states that the future development of management accounting will be determined by three key factors. These factors are the impact of technology, the need to develop financial management skills in Eastern Europe and the pressure on training and developing further controllership/ management accounting skills.

With regards to the impact of technology, his views concur with those already mentioned, i.e. that the gathering of data will no longer be the domain of the management accountant. This process will take place within operations as part of the formal information system process. There will be an absolute reliance on the system that delivers the numbers. Management accounting practitioners will need to concern themselves with the robustness and reliability of the information systems and the quality of thinking that has gone into setting them up.

As Central and Eastern European countries grapple with problems of poverty and unemployment, Sheridan believes that there will be immense political and economic pressure on Western European countries and their professional institutions to fill the gap, to train their financial managers and management accountants, and to set up the necessary educational and institutional framework to achieve this. He sees the development of a pan-European financial MBA as a possible result.

Sherwood-Jenkins (1994:96-100) adds little more to the debate. He lists issues of a possible change in name, the importance of environmental auditing and the use of reporting events rather than calendar periods. He believes that activity-based management will be common place as the integrated systems make practicable the permutations and combinations not currently possible on a regular basis.

4.6.2 The academic view

This view is expressed by Richard Wilson, a Professor of Management Accounting and Head of the Department of Management at Keele University. Professor Wilson also practices as a consultant on a part-time basis. He has published sixteen books and has written a wide range of papers and articles on managerial topics.

Wilson (1994:100-107) makes two important statements with regards to the current state of management accounting. Firstly he states that there is no unified theory or a coherent set of practices, and secondly, that there is a lack of balance between managerial accounting research and practice. Explanations for these differences might include:

- the tendency for academics to investigate 'respectable' topics rather than useful ones
- the absence of a unifying conceptual framework
- the shortage of empirically oriented research, and
- the absence of documented case histories written by practitioners with the result that there is a limited awareness among practitioners themselves, as well as between academics and practitioners, as to the state of current managerial practice.

As to the prospects for the future, he believes that the following issues will need to be addressed by management accountants:

- the question of implementing the quantitative techniques that are being developed and the resultant costs of data collection and analysis
- the organisational context of managerial accounting, including the clarification of the purposes that management accounting might serve
- the individual decision-making and information processing, with a view to producing less naïve models than those derived from Neo-classical economics
- the greater concentration on external linkages (e.g. dealing with environmental issues, competitive position, etc.)
- the wider use of corporate modelling
- the increasing recognition that management accounting is but one part of organisational life, which has reciprocal interdependencies with other parts
- a closer link between practitioners and researchers, and finally,
- the limited knowledge regarding the process of change in management accounting at the level of the individual enterprise.

4.7 The view form the United States of America

The view from the United States is written by Thomas Klammer, a Professor in the Department of Accounting at the University of North Texas. He holds a PhD and is also a Certified Public Accountant. Dr Klammer has a research background and is widely published in many international journals and has written numerous textbooks and training materials. He is also a past president of the American Accounting Association.

Klammer (1994:108-113) holds a very optimistic view of the future of management accounting. While he does not add any new perspectives with regards to the future practice of management accounting, he is the only author of those consulted, who believes that many of the basic tools currently in use will survive into the next decade. He states that there will be wide differences in the technology used by various organisations and it is these differences that will determine the nature of the measurement tools in use. He does, however, state that many entities will challenge the traditional methods and procedures.

Klammer firmly believes that management accountants will remain the measurement experts of society, providing organisations with extensive operational and other non-financial and qualitative measurements. The scope of what is generally considered to be accounting will broaden.

He sees a growth in management consulting organisations who will handle the mechanical aspects of traditional cost accounting for a large percentage of the world's organisations. Business and government will outsource a significant amount of essential management accounting work to these firms. They will become a primary source of special-purpose management analysis.

The final point made by Klammer is that management accountants will be the educational and training experts of the entire organisation. They will play a major role in keeping workforce skills dynamic and in linking these skills to changing organisational goals.

4.8 Management Accounting in South Africa in 2004

The South African view is expressed by Professor Enrico Uliana, a Professor of Accounting at the University of Cape Town. Professor Uliana has had many articles published in refereed journals at an international level, as well as in professional journals. His qualifications include a PhD and he is also a Chartered Accountant. As the focus of this thesis is the study of management accounting in South Africa, it is deemed appropriate that this paper be discussed last, even though it is not the final paper in the series under discussion.

Uliana (1994:85-90) starts his discussions by making the statement that management accounting has done little to increase productivity and contribute to improved organisational performance in South Africa. It is his opinion that management accounting as a profession should first ensure that reasonable standards are maintained and that there is a positive public and professional perception of the designation 'management accountant'. He then suggests areas in which management accounting could contribute to development in South Africa. These areas are productivity measures and affirmative action. Each will be briefly discussed.

4.8.1 Measures of productivity

In measuring productivity in South Africa Professor Uliana states that it is necessary to take the following factors into consideration:

- low level or worker education; therefore inputs from the workforce need to be simple and outputs need to be understandable
- mistrust of accounting reports; therefore reports need to be the same as for external reporting, i.e., the numbers should tie up and additional information should be provided that is more relevant to non-accountants.

Uliana suggests that a 'tableau de bord', as discussed in the French approach (paragraph 4.4.4, page 83), may be a suitable tool to implement in South Africa. The critical issue would be to identify those areas that should be measured. Uliana goes on to list possible areas as, contribution to economic welfare, the environment, job creation, customer satisfaction and quality.

4.8.2 Affirmative Action

Professor Uliana states that it is generally accepted that one of the most effective ways of producing desired behaviour is to measure and report on that function. Thus for affirmative action to be truly integrated into an organisation, and to be taken seriously, it should be measured and reported on. He believes that an activity-based approach should be taken whereby the costs of affirmative action are recorded. This would measure an organisation's commitment to the program and provide a monitoring mechanism. The success of the program could be expressed as the number of disadvantaged people who have progressed to successfully holding senior positions, while the efficiency of the program could be measured by the cost per successful action.

4.9 Conclusion

The analysis of this section was done in great detail as all of the distinguishing criteria of the third and fourth stage of the development of management accounting were mentioned, and indeed emphasised, in the papers analysed.

These include:

- The management accountant will be part of the management team
- Management accounting will be seamlessly involved in the various business processes and no longer be a 'backroom act'
- The widespread use of ABC systems and management
- Performance measurement tools that include both financial and non-financial indicators and that are not exclusively short-term based
- Supplier and customer analysis
- Bench-marking
- Continuous improvement
- The incorporation of product development costs, customer related costs and decommissioning costs into product cost profiles
- The implementation of reporting periods that are not necessarily based on calendar periods

- Cost benefit analysis of the utility of the management accounting function itself.

The common themes are considered to be reflective of the third and fourth stages of development of management accounting and, as mentioned in the chapter outlining the methodology to be used in this research (paragraph 5.5, page 97), will, in part, inform the construction of the questionnaire.

CHAPTER FIVE

METHODOLOGY AND FIELD STUDY

5.1 Introduction

In chapter one (paragraph 1.8, page 14) reference is made to various research models to study the practice of management accounting. These include descriptive models and normative models, positive theories and case studies. In this chapter each of these will be examined in further detail and the arguments stated for the proposed methodology. The chapter will also include issues relating to the actual field study that was undertaken. These issues include gaining access to the organisations, the pilot study and the resultant changes that had to be made to the questionnaire and the interview approach. The chapter is concluded with reference to the value of the literature review in the field study.

5.2 Normative and positive theory designs

Normative theories are concerned with prescription (what ought to happen), while positive theories are concerned with explanation and prediction (what does happen and why). Positive accounting theory has its roots in Neo-classical economics. According to Scapens (1988b:14) the central theme of Neo-classical theory is the notion of economic rationality, whereby each individual maximises self-interest. In the context of management accounting, this theory implies that shareholders and decision-makers are assumed to be rational economic persons, intent on maximising their personal utilities and that markets are available for managerial skills and information.

Neo-classical theory spawned much of management accounting research done in the 1960's (Scapens, 1988b:15-16). It is interesting to note the contribution that such research made towards the development of management accounting practice and theory. Management accounting textbooks contain numerous decision models that prescribe optimal profit maximising behaviour. It is also important to note that these models not only described and predicted the way in which

variables interacted in the real world (positivist), but also described how individual decision makers ought to behave (normative).

The fundamentals of Neo-classical theory have been the subject of much debate and criticism over the years. Of particular concern is the issue of rationality, in that man does not possess all of the information required at all times to make optimal decisions. Simon's postulate of bounded rationality and the satisficing rather than optimising nature of decision making, is an example of this criticism (Simons, 1990:135-136). The ability of the market to achieve efficient allocation of economic resources has also been challenged. Issues such as externalities, public goods and imperfect information are cited as examples that could frustrate such efficient allocation.

The usefulness of positive management accounting models is limited by virtue of the fact that they can only predict in a generalist way, at the market level. They have not been successful in predicting individual economic behaviour, which to a large extent is the focus of management accounting, where the concern is the behaviour of individual firms or individuals within the firm.

"Neo-classical theory was developed by economists to predict general patterns of economic behaviour. It was never intended to be an explanation of how individuals do or should behave – except in the extreme case of the neo-classical world." (Scapens, 1988b:18)

Research designs based on these models are experimental and quasi-experimental methods and surveys, where the researcher identifies a problem, develops a hypothesis based on positivistic/normative theory and then tests this hypothesis on a targeted population using sampling techniques. The application of scientific method, borrowed from disciplines such as sociology and psychology, and the use of statistical analysis, informs all aspects of this type of research.

5.3 Case study and field study methods

Case studies and field work as a research methodology, are seen by many authors as a more effective method to study the behaviour of individuals within firms and the behaviour of individual firms. The reason is that this methodology focuses on how people react to

management accounting information in its natural setting (Atkinson & Shaffir, 1998:44). Yin, (1989:13) defines the case study as,

"..an empirical enquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between the phenomenon and the context are not clearly evident".

Ferreira and Merchant (1992:4), list the following distinguishing characteristics of field studies:

- The researcher has a direct in-depth contact with organisational participants, particularly in interviews and direct observation of activities, and these contacts provide a primary source of data
- The study focuses on real tasks or processes, not situations artificially created by the researcher
- The study design is also not artificially created, it evolves along with the field observations
- The presentation of data includes relatively rich (detailed) descriptions of company contexts and practices
- The resulting publications are written to the academic community.

Ferreira and Merchant (1992:24) argue that field research has made a substantial contribution to the development of management accounting theory in recent years. Techniques developed by practitioners to manage the rapidly changing environment that management accountants face, are now being incorporated in theory. An example is the design and use of management accounting information systems that address the impact of advanced manufacturing systems. Further evidence is the recent trend to incorporate case studies into management accounting textbooks to illustrate the underlying theoretical assumptions. Examples are Kaplan and Atkinson (1997:168-221) and Hirsch (1994:643-659).

Field research, like any other research methodology, has its limitations and problems. It is costly and time consuming for both the researcher and the subjects. Based mainly on confidentiality considerations, gaining access to organisations is a problem. Continued co-operation is also not guaranteed. What to include in the research report and what not to include, involves a value judgement on the part of the researcher that could adversely affect the validity of findings. Other

problems include sample selection and data collection bias. Ferreira and Merchant (1992:26) state that,

"...interviews are subject to both response and interpretation biases, and even quiet observations can effect the behaviour of those being studied. The use of small samples hinders reliable generalisation because of the lack of statistical control over the many relevant variables".

The lack of a generally accepted research design also poses problems (Ferreira & Merchant, 1992:26; Brownell, 1995:61; Keating, 1995: 67-69). These problems include difficulties with the writing up of the research findings and a failure to explicate the theoretical contribution that the case study makes to the literature. A good case study should adequately address the criteria of construct validity, external validity and reliability. Baxter and Chua (1998:70-83) provide a useful framework, particularly for novice researchers, for the planning of a case study. Included in the framework are issues of getting started, accessing your authority, giving the game away, becoming oriented, talking with others, the technology of talking, cross-cultural competence, theorising in the field, coping with ambiguities, writing-up the field research and ethical aspects.

Other notable contributions found in the literature regarding case study research design are briefly mentioned. Eisenhardt (1989:533) developed a road map for the process of theory building from case research. This roadmap is an extension of previous work done by other researchers, notably Yin (1989:39). Yin proposed two dimensions of case study research. These are the single/multiple case dimension and the holistic/embedded dimension.

Methods of data gathering are diverse and include, unstructured interviews, direct observation, documentary evidence and participation observation (Brownell, 1995:70-74). Brownell also provides a set of analytical techniques that could be applied to codify the data. These include pattern matching, explanation building and time series analysis that could be used on both qualitative and quantitative data.

5.4 Proposed methodology

The nature of the proposed research is exploratory and descriptive. The research question is to gain an understanding and insight into the state of management accounting as practised in the

Eastern Cape. This precludes any of the methodologies based on the Neo-classical theoretical framework.

Fieldwork and case study research is qualitative in nature, is demanding on time and requires an experienced researcher if any of the problems discussed above are to be avoided. While these methods are appropriate, suitable and indeed desirable, for the nature of the research intended, the impediments mentioned are also relevant.

As mentioned (paragraph 1.8, page 15) the chosen methodology for the research will consist of a structured interview to be conducted with twenty-eight various business organisations in the Eastern Cape. The structured interview will be based on a questionnaire (Annexure 2, pages 169-177) whereby interviewees will be asked to respond to questions using a rating scale of one to five. As discussed (paragraph 1.7, page 13), the twenty- eight selected organisations consist of all those who employ three hundred or more persons.

5.5 The construction of the questionnaire

5.5.1 Criteria for various stages of the development of Management Accounting

The questionnaire (Annexure 2, pages 169-177) is based on a set of criteria that attempt to categorise management accounting into four different stages in terms of the conceptual framework as formulated by IFAC. As already mentioned (paragraph 1.3, page 7) these stages are not distinct concrete developments, as organisations continually evolve and adapt their reporting mechanisms. There is, however, a clear distinction between Stages One and Two on the one hand and Three and Four on the other. In Stages One and Two management accounting is represented as a functional task reporting to line management and is seen mainly as a decision-enabling task. In Stages Three and Four management accounting is seen to be integrally involved in strategy formulation at top level, particularly with regards to resource management, elimination of waste and non-value-added activities.

The criteria that conceptualise these stages are listed below:

I Stages One and Two:

1. *Cost determination and financial control through the use of budgeting and cost accounting technologies.* This involves the determination of prime and indirect costs. Overheads are typically allocated to products using a single cost driver, usually labour. Stock valuation procedures are often based on requirements for financial reporting purposes.
2. *Provision of information for management planning and control.* This generally involves the use of standard costing and the calculation of variances. These variances are normally calculated periodically, either weekly or monthly and are based on historic data.
3. *Management Accounting is seen as a functional task, reporting to line management.* The management accountant is often categorised as a 'bean counter', occupying a back office where all necessary information is collected, collated and analysed for the objective of providing information for control purposes.
4. *Use of incremental centralised budgeting methods.* Budgets are based on previous years' numbers and on estimates provided by various user departments. The management accountant's task consists of extracting the various departmental budgets. While consultation does take place, the bulk of the procedure is performed in the 'back office'.
5. *Performance Measurement* – using only financial indicators.

II Stages Three and Four:

In these stages the attention shifts to a focus on reduction of waste in resources used in business processes through the use of process analysis and cost management technologies, and to the effective use of resources which examine the drivers of customer value, shareholder value and organisational innovation. Certain basic requirements are necessary for management accounting to evolve into these stages. These are:

1. *An organisation that has embraced the following:*
   - Flatter hierarchical structures with empowerment of front-line employees.

- The removal of functional specialisation and a focus on business processes.
- The removal of the barriers between suppliers and customers and the entering into of contract/partnership arrangements with them.
- A focus on core competencies.
- Real time integrated information systems.
- Localised control at business unit level and the use of non-financial and financial performance indicators.
- An emphasis on cultural integration and a shared value system.

2. *A focus on waste reduction and the elimination of non-value-added activities.* This is achieved by means of activity based costing, management and budgeting techniques.
3. *An emphasis of cost management at business unit level.* The management accountant is responsible for the training and empowerment of managers at business unit level in the active management of costs. This is achieved mainly by means of an integrated real time comprehensive information system.
4. *The use of benchmarking.* Best practice is clearly identified and communicated. The management accountant must have a strong external focus and keep abreast of techniques and trends in similar organisations globally.
5. *Continuous Improvement.* A policy of continuous improvement should be in place which is actively supported by all employees. Performance measurement tools should include this criteria.
6. *Business units, top management and various other internal stakeholders are regarded as the internal customers of the management accountant.* All work and activities performed by the management accountant should also be subjected to the value-added criteria.
7. *Management accounting is an integral part of the strategic management team of the organisation and performs a leading role in resource management.* This task is achieved through the translation of business plans into financial numbers by means of techniques such as modelling, simulation, linear programming to name but a few.
8. *The use of zero-based, participative or activity-based-budgeting performed mainly at business unit level.* The management accountant involved in training and empowerment of front-line managers.
9. *The use of activity-based-costing for product costing, pricing and management decision- making.*

5.5.2 Structure of the questionnaire

The questionnaire (Annexure 2, pages 169-177) is divided into four sections. The first section deals with those management accounting techniques, that have undergone change as management accounting has evolved through the various phases. It should be pointed out that these changes are not definitive of the different phases and are included merely as it is believed that they do provide persuasive evidence of change. The second section deals with management process participation with regards to resource management. These statements are extracted from the conceptual framework and are definitive. The third section deals with the skill requirements for the proper performance of the management accounting task and is also perceived to be persuasive rather than definitive. The last section includes two questions only and is an attempt to establish the nature of the management accounting function as practised in the particular organisation.

A separate section dealing with financial reporting bias has been included as well. This bias has been referred to in Chapter One (paragraph 1.1, page 5) and it is believed that such a bias would provide further persuasive evidence of the stage of development of the management accounting function. A further motivation for this inclusion is to establish if this is indeed an area for further research. The questionnaire is concluded with a general remark section to allow for any comments that the respondents may wish to make. It was expected that each interview would last approximately forty-five minutes.

5.5.3 Validity of the questionnaire

The validity of the questionnaire relates to its ability to provide an answer to the research question. Question 23 (Annexure 2, page 176) has been specifically included to achieve this end and to achieve the objective of validity (paragraph 1.5.8, page 11). This question explicitly asks the respondent to choose an option that he or she believes best fits the practice of management accounting in the organisation concerned. For the questionnaire to be valid, a positive correlation should exist between this question on the one hand, and the various other sections on the other.

5.6 Statistical analysis

The following statistical analyses will be performed:

5.6.1 Pearsons correlation coefficient

A Pearsons correlation coefficient will be performed between Question 23 and the various sections of the questionnaire. The result will be interpreted in terms of a rating scale as formulated by Wegner (2000:617). This rating scale will provide an indication of the extent of the correlation.

5.6.2 Means analysis

For purposes of statistical analysis, the questionnaire has been coded into two sections. Section One deals with questions where a rating of 1 or 2 would indicate the particular organisation to be in Stages One and Two (coded by the colour red), while Section Two incorporates questions where a similar rating would indicate Stages Three and Four (coded blue) (Annexure 4, pages 179-186). An overall percentage of 84.13% or more of responses supporting Stages Three and Four selections, thus a population up to standard deviation + one in terms of the normal distribution curve, would represent a rejection of the hypothesis that business organisations in South Africa have not evolved into Stages Three and Four. The converse would be indicative of acceptance of the stated hypothesis.

In the introductory section of the questionnaire (Annexure 2, page 169) respondents are requested to provide details of organisation size (indicated by number of employees), nature of business and the country of origin of the holding company. A means analysis will also be performed on each of these criteria to establish the effect, if any, of these aspects on the research question.

The results of the means analysis should provide an answer to the research question and satisfy the requirements as set out in objectives 1.5.5 (paragraph 1.5, page 11).

5.6.3 Descriptive analysis

Frequency tables will be extracted on those sections of the questionnaire that relate to activity-based-costing and financial reporting bias. An analysis of the extent of the implementation of ABC and the existence of financial reporting bias, was stated as an objective of this research (paragraph 1.5.6, page 11).

5.7 Pilot Study

The first five respondents will be treated as a pilot study (paragraph 1.5.7, page 11). For this purpose, at least one company from the service sector and one from the manufacturing sector were included, as well as at least one large and one small organisation. Any difficulties obtained will be carefully evaluated and adjustments made to the questionnaire if necessary.

5.8 The field study

5.8.1 Gaining access to the organisations

The twenty-eight organisations to be interviewed were situated mainly in the Port Elizabeth-Uitenhage area (twenty-four), one in Dimbaza, a decentralised industrial area established between King William's Town and Alice, and the remaining three in and around East London. The logical approach was to start in the Port Elizabeth/Uitenhage area and then to work back to East London.

Initial telephonic contact was made with the management accountants of the various organisations. This proved to be quite a timeous procedure as the title of the person differed from organisation to organisation. Interviews were obtained with all organisations, except for two. The first of these two was a state-operated service organisation where all accounting related functions were performed at head office, which was not situated in the Eastern Cape. The other organisation was a relatively small manufacturing concern that simply did not want to grant an interview. These omissions were not regarded as a serious impediment to the research.

A problem that arose with regard to gaining access to the organisations was the absence of the targeted person from the organisation at a particular time. This was to be expected and the only way around the problem was to resign oneself to the fact that several trips to Port Elizabeth would have to be made. Three trips were eventually necessary. Due to the absence of the management accountant in one particular company for the entire period concerned, the interview took place after the data had been submitted for statistical analysis. Nevertheless, it was decided to continue with the interview, due to the size and stature of the company concerned. The protocol of the interview for this particular company was adjusted significantly and only issues such as the costing methodologies employed and in particular the use of activity-based-costing, were investigated, in an attempt to obtain further qualitative data in support of the quantitative findings.

5.8.2 Results of pilot study

As mentioned (paragraph 1.5.7, page 11) the first five interviews were treated as a pilot study. The expected duration of the interview was forty-five minutes. While in most cases it was possible to keep within the time frame, the respondents were quite willing to provide information and explanations beyond that which was required. At first the attitude of the researcher was to redirect attention to the questions at hand in order to limit the time taken. This was simply done as an act of courtesy to the respondents, as the researcher was very mindful of the importance and value of their time. Another reason for the limitation was simply a desire not to be late for the next interview.

In general, these interviews went well in spite of a rather anxious researcher, particularly with regard to the responses that were given. Support for the stated hypothesis was not readily forthcoming, which was rather unsettling at first. In one or two of the cases, the respondents appeared to be ill at ease and perhaps even a little threatened as they perceived themselves to be on trial.

5.8.3 Minor problems observed with the questionnaire and interviewing methodology

There were a number of small technical problems with the initial questionnaire. These will be mentioned and the remedial action taken briefly discussed.

5.8.3.1 Options available to the respondents

The first problem related to the options available to the respondents regarding the use of a particular management accounting technology in their organisation. The options available were: 'extensive part', 'significant part', 'limited part' or 'no part'. The fifth option was 'unfamiliar or unknown technology' (Annexure 1, page 160). It was immediately evident that this last option posed problems. One could sense that the respondents were perhaps a little taken aback, and maybe even a little insulted, by the thought that they would not know some of the techniques to be discussed. Secondly, some techniques did not apply to their organisations. An example is JIT inventory management. One of the organisations in the target group was a fishery company whose main business was trawling, freezing and packaging of fish. Other than packaging materials, there was no other inventory to speak of. Service organisations simply did not incur product decommissioning costs or would not have to deal with waste management in any form. This problem was overcome by changing the terminology of the fifth option to 'not applicable' (Annexure 2, page 169). This of course, had statistical implications, but these were easily overcome by a simple adjustment of formulas. (The matter was discussed with the statistician, before making the change to the questionnaire.)

5.8.3.2 Terminology used in some of the questions

Another problem related to the terminology used in some of the questions that were targeted mainly at manufacturing organisations. Of particular concern was the terminology used in the section on quality management. For example, Question 8.2 (Annexure 2, page 172) reads, 'All raw materials subjected to quality checking, prior to start of production.' This statement is not relevant to service organisations. For service organisations the statement was changed to 'Analysis of customer complaints to detect poor service.' (Annexure 3, page 178) The wording on the rest of the quality assurance statements was also changed and a separate questionnaire for service and manufacturing organisations was used.

5.8.3.3 The role of the Management Accountant in human resource management

The last adjustment that was necessary concerned Question 20. This question listed the human resource management skills required by the management accountant (Annexure 1, page 166).

Two of the skills listed were also included in Question 15. As there was no valid reason for this duplication, the sections were simply deleted.

5.8.4 Approach to the interview

After the conclusion of these first interviews, the researcher, upon introspection, decided to change the manner in which the interviews were conducted. Respondents generally involved themselves in the questions and appeared to want to say more than what was actually asked. It was decided to assume a more relaxed, non-directive style of interviewing and to allow the respondents to dictate the pace and time involved. This approach resulted in a greater understanding of the particular circumstances of the organisation concerned and in the obtaining of far richer and more detailed information. This style of interviewing was probably more in the qualitative paradigm and the lack of a tape recorder soon proved to be a serious oversight.

The concern of the researcher regarding the apparent lack of support for the hypothesis was also abandoned, as it became evident that changes had occurred and were still occurring in the practice of management accounting. Many of the interviews now lasted up to two hours and it was with a sense of satisfaction and excitement that the remaining interviews were concluded.

5.9 The influence of the literature study

At a very early stage the value of the literature review became evident. It enabled the interviewer to make relevant remarks that without fail seemed to 'strike' a cord with the respondent and this usually resulted in a further sharing of information. A few of these incidents will be discussed.

5.9.1 The country of origin of the holding company

In the review of the literature, management accounting as practised in various countries was discussed (paragraph 3.3, pages 44-56). Five of the companies interviewed were subsidiaries of German holding companies. All were private companies, thus indicating that their shares were not publicly traded and a strong influence from the holding company was to be expected. In one case, a single family held all of the shares. In three of these companies, the title of the management accountant was 'Controller' as indicated in the literature. The importance of

accurate costing, also indicated in the literature, was of utmost importance to these companies. To this end most had sophisticated software installed, usually Systems, Applications and Products (SAP). Activity- based-costing for fixed factory overheads was evident in three of the five companies. (Out of the twenty-six companies canvassed, only nine used ABC).

The idea of the controller as being depicted as the pilot of a ship, the 'lotse' (paragraph 3.3.4, page 54), was particularly evident in one company. One of the sections in the interview dealt with issue of the management accountant providing relevant information, negotiated and discussed with all the users. When asked to respond to this section, the respondent concerned roared with laughter..."I tell people what they need to know. There is no such thing as negotiation. We have certain variables that need to be measured and reported on to ensure that the company achieves its targets". In this particular company a 'toolbox' aimed at creating value had been implemented by the controller (part of holding company policy). Different 'tool boxes' were created for the different functions (manufacturing, purchasing, research and development and so on). These toolboxes were displayed in prominent positions in the departments concerned.

Only one company within the French sphere of influence was interviewed. This was also a manufacturing concern with an Italian holding company. Upon noticing this, a remark by the researcher with regard to the literature and the 'tableaux de borde' (paragraph 3.3.3.2, page 51), immediately resulted in a positive response from the respondent who turned to his computer and printed a chart of accounts named TDB 2000. "Is this what you are referring to?" Upon closer scrutiny the TDB 2000 (Annexure 6, pages 188-191) represented the General Accounting Plan (paragraph 3.3.3.2, page 49). The issue of macro-accounting for national statistical purposes (paragraph 3.4.4, page 61) became more clear to the researcher as the respondent explained the compulsory monthly reporting procedures in terms of this plan.

5.9.2 The changing nature of the role of the Management Accountant

The literature review included a chapter where the views of management accountants and academia from various countries as to the changing role and nature of management accounting was discussed (paragraph 4, pages 67-92). This changing role also became evident in the field study undertaken. In some cases this question was informally asked at the end of the interview when it became clear that the organisation concerned had undergone recent change. In most cases

the time frame of the change seemed to date back to the re-introduction of South Africa into the global economic village, or as a result of a change in holding companies. Some of these responses are re-produced below.

"In the last four years there has been a significant change in the management accounting role. It has become very involved within decision-making and directly involved in plant working, (physical). The goal of the management accountant is to create a picture of what is happening in the plant with numbers and variance reports that are relayed to the plant operators in a practical way. There has been a major change in the relationship between the production staff and the management accountant. It is now very much a two-way street. Management accounting reporting is produced at all levels to individuals at all cost centres."

Another,

"Over the years this department has changed from merely accounting to the main focus point with regards to the running of the entire factory."

And,

"We are now also considering the concept of manufacturing cells."

Lastly,

"Over the past few years the role of the management accountant has evolved from mainly a reporting and analysing function to one of team participation in decision-making. This was a gradual evolution and has resulted in a feeling of empowerment and in the acceptance of responsibility and accountability."

5.9.3 The institutional nature of the role of the Management Accountant

In Chapter Two (paragraph 2.7, pages 28-31) the institutional nature of management accounting was discussed. Of particular interest are the studies by Burns (paragraph 2.7, pages 30-31) and Dent (paragraph 2.7, pages 29-30). In these studies the influence of routines, institutions and

power within organisations are seen as major determinants of the accounting practices to be employed. These influences were also evident in a number of the organisations studied.

In one of the three state-owned organisations interviewed, it soon became clear to the researcher that a significant amount of discontent and frustration was evident in the day-to-day management of the accounting routines. In this particular case, three respondents attended the interview. This was their choice, the motivation being simply a desire to provide factual information. It was also indicative of a degree of boredom and, perhaps, even under-employment. The only accounting that was being applied was that of expenditure recording and a comparison of this against budget. Small deviations were treated as material and major disputes occurred over issues such as the misuse of stationery, or the private use of telephones. The respondents were clearly frustrated, all expressing a desire to want to do so much more and to become more involved at operational level. However, they were precluded from doing so because of deep-seated routines and institutions within their organisation that were perceived to be unchangeable.

In contrast to this, another state-owned organisation, exhibited a far more business like approach in the management of the accounting routines and procedures applied. The organisation concerned was in the process of being privatised and was also preparing for a public listing in the near future, which significantly changed the climate within the organisation. Profitability and efficiencies within the various business units were of utmost importance and the management accountant was clearly involved as an important team member in these endeavours.

The all-pervasive power of the managing director was evident in two companies, which clearly affected the importance attached to management accounting information. One of the companies was a large vehicle manufacturing concern, where a qualified professional accountant performed the management accounting function. The interview with this company was conducted towards the end of the field study and the expectation of this researcher was that the company would be in Stages Three or Four of development. This did not turn out to be the case. The respondent referred on numerous occasions to the power and influence of the chief executive officer who appeared to be leading the company with intuitive flair and who had appointed business analysts as advisors and mentors. This respondent perceived the role of the management accountant as strictly limited to a staffing role and disagreed with the management accounting process as being deployed and conducted within various types of teams established to undertake the work of the

organisation. He stated that he was amazed at how little he needed to know of vehicle manufacturing in order to perform his duties. The prevailing culture appeared to be a general acceptance of the way in which the organisation was being led and that there was no perceived need to change.

In the second company, considerably smaller, and privately owned by a Dutch holding company, the dominant influence of the managing director was again evident. The company was performing very well and had become the largest producer of steel containers in the world in a rather short period of time under the guidance and leadership of the managing director, who also happened to be a professional accountant. The management accountant stated quite clearly that the management control systems implemented were not necessarily the best, but were designed to suit the management style of the managing director. As with the previously mentioned company, he perceived his role to be primarily that of the provision of information for decision-making purposes, strictly limited to a staffing role. This particular interview lasted three hours. The respondent appeared to enjoy a rare opportunity to talk about his job and to express his frustrations at an apparent powerlessness to have any meaningful change implemented within the organisation.

5.10 Conclusion

In this chapter a wide range of issues were dealt with. On the one hand, various research methods for management accounting were discussed and the proposed methodology explained and motivated. Where applicable the relevant objectives to be achieved in the empirical part of the research (paragraph 1.5.5–1.5.9, page 11) were referred to. On the other hand, issues with regards to the implementation of the methodology were also discussed, including the results of the pilot study and the interesting similarity that existed between the findings of the literature review and practice. It is the view of this researcher that the chosen methodology did result, for the most part, in an honest appraisal of the management accounting practices employed by the respondents. The results of the research to be discussed in the next chapter should provide a relatively reliable analysis of the practice of management accounting in the Eastern Cape.

CHAPTER SIX

ANALYSIS OF RESULTS

6.1 Introduction

The overall aim of this research was to study the practice of management accounting in the Eastern Cape (paragraph 1.5, page 11). To this end various objectives were set. A literature study, that examined the various perspectives and influences on the practice of management accounting, was undertaken (objectives 1.5.1-1.5.3, page 11). Various research methodologies suitable for the study of management accounting were discussed and a motivation for the chosen methodology was provided (objective 1.5.4, page 11). A pilot study to establish possible problems with the questionnaire was also performed (objective 1.5.7, page 11).

The results of the empirical findings of the research will be discussed under the following headings:

6.2 Validity of the questionnaire (objective 1.5.8, page 11)
6.3 The research question (objective 1.5.5, page 11) and the hypothesis statement (objective 1.5.9, page 11)
6.4 Effect of the nature of the organisation on the research question (objective 1.5.5, page 11)
6.5 Effect of size of the organisation on the research question (objective 1.5.5, page 11)
6.6 Effect of culture on the research question (objective 1.5.5, page 11)
6.7 Analysis of the individual organisations in terms of their means (objective 1.5.5, page 11)
6.8 The implementation of activity-based-costing (objective 1.5.6, page 11)
6.9 The existence of financial reporting bias (objective 1.5.7, page 11)

The final objective to formulate a suitable conclusion, and to make recommendations for further research, will be discussed in Chapter Seven (objective 1.5.10, page 11).

6.2 Validity of the questionnaire (objective 1.5.8, page 11)

As already explained (paragraph 5.5.3, page 100) the validity of the questionnaire refers to the issue of how accurately and effectively the questions asked will provide an answer to the research question. The research question was to establish the stage of development of management accounting in the population under review. To this end a question had been included in the questionnaire that specifically asked the respondents to rate three statements relating to their view of the nature of the management accounting task in their organisation on a continuum of 'strongly agree' to 'strongly disagree' (Question 23, Annexure 1, page 167). These statements were pertinent to the research question and from a validity point of view should correlate positively with the answers of the respondents in the various other sections of the questionnaire. A Pearson correlation coefficient analysis was performed with each of these sections on the one hand and with Question 23 on the other.

The results will be reflected as follows:

6.2.1 Questions 13.1-17.4 (Annexure 2, page 173-174) with Questions 23.1, 23.2 and 23.3. Questions 13.1-17.4 are regarded as definitive to the research question (paragraph 5.5.2, page 100) and hence the extraction of this section and its separate treatment.

6.2.2 Questions 1-12,18-22 (Annexure 2, page 170-173 and 175-176) with Question 23.1, 23.2 and 23.3. These questions are regarded as being merely persuasive of change (paragraph 5.5.2, page 100).

6.2.3 Conclusion

6.2.1 Correlation of description of management accounting function and respondents' involvement in resource management

Questions 13-17 dealt with the respondents' involvement in resource management from an organisational point of view, which is regarded to be an important indicator of the stage of development of management accounting. Question 23 consisted of three statements, each describing a different view of the function of management accounting.

Question 23.1 reads as follows:

"Management Accounting is purely a technical activity, necessary for the pursuit of organisational objectives"

Diagram 9: Frequency distribution of Question 23.1

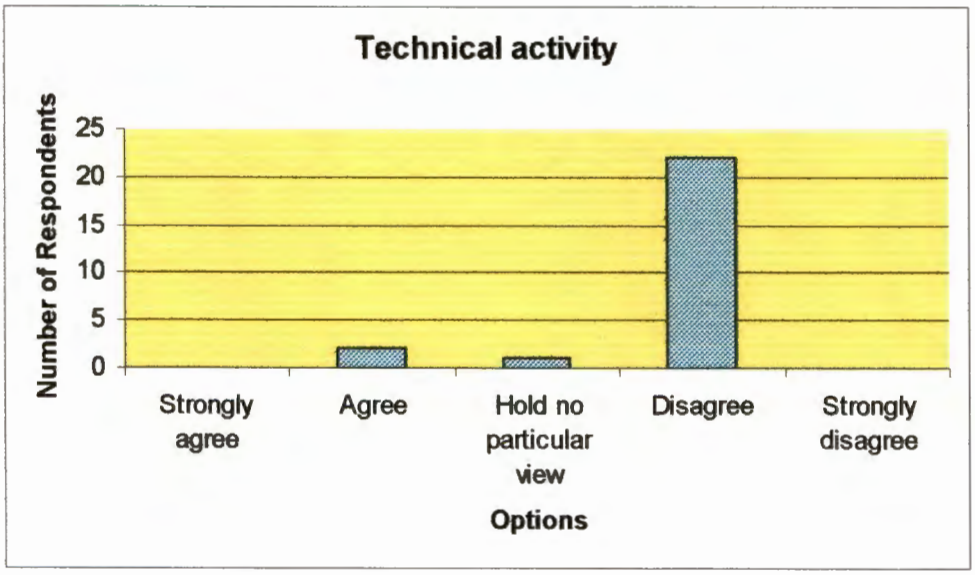
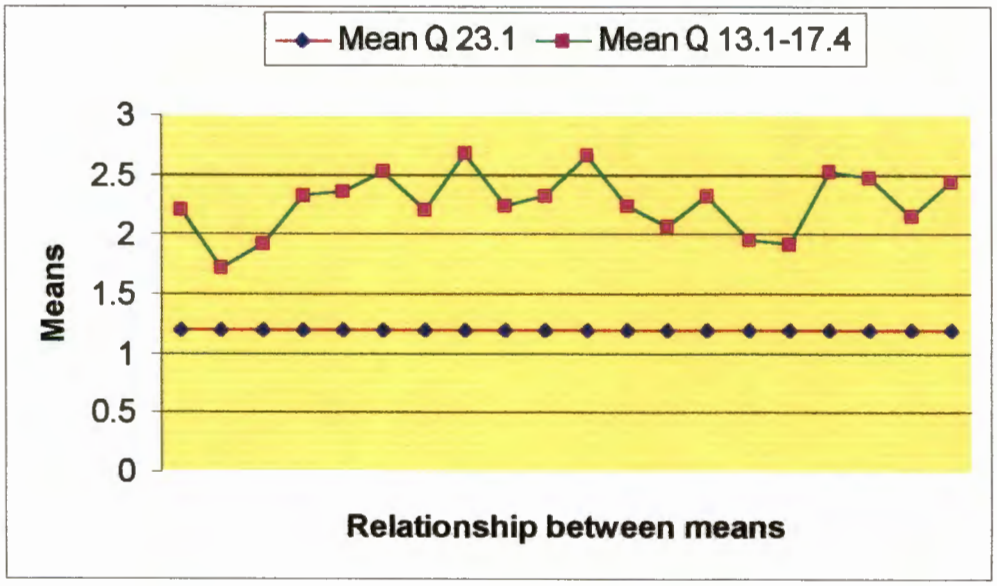


Diagram 10: Mean results of Questions 13.1-17.4 and Question 23.1



An analysis of the results showed a very small positive correlation (.15448) between this question and that of the section under review. The standard deviation was however, .4609, indicating a large variability of results (Steyn, 2001:4). Upon closer scrutiny, twenty-two of the twenty-five respondents disagreed strongly with this statement. Only one agreed and two held no particular view (Steyn, 2001:40). This frequency distribution is reflected in Diagram 9, page 112. This result indicated a very strong consensus among respondents, which was not the case for Questions 13-17 and hence the poor correlation. It could be argued that this statement was best left off the questionnaire, as it was not really reflected in any of the statements in Questions 13-17. It is the view of this researcher that the lack of correlation could be ignored for the reasons mentioned.

In Diagram 10, page 112, the means of Questions 13.1-17.4 and Question 23.1 are reflected. The average mean for Questions 13-17 was 2.262 with a standard deviation of .602 (Steyn, 2001: 3). The mean for question 23.1 was 1.2 with a standard deviation of .577 (Steyn, 2001:3).

Question 23.2

"It is a management activity, limited to a staffing role, to provide support to line managers through the provision of information for planning and control purposes"

A positive correlation of .54457 existed between Question 23.2 and Questions 13-17. The standard deviation was small, .0049 (Steyn, 2001: 3).

The mean result for Question 23.2 was 2.44 with a standard deviation of 1.227 (Steyn, 2001: 3). The results of the frequency distribution are reflected on Diagram 11, page 114 (Steyn, 2001: 58). This distribution clearly indicates the wide variability of results as reflected in the large standard deviation of 1.227. Seven respondents agreed with the statement, with an almost equal number, eight, disagreeing.

Diagram 12, page 114 is similar to Diagram 10, page 112. The improved positive correlation is clear.

Diagram 11: Frequency distribution of Question 23.2

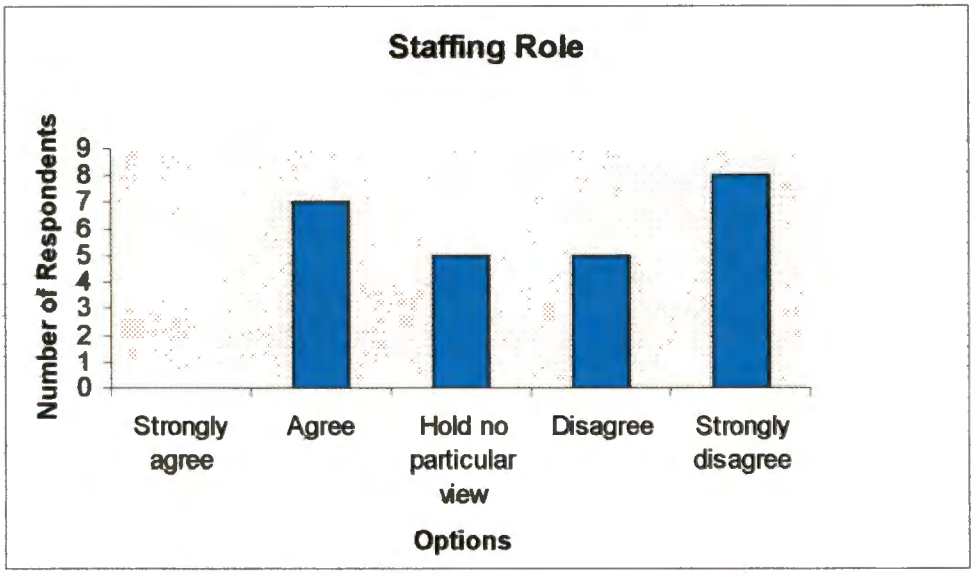
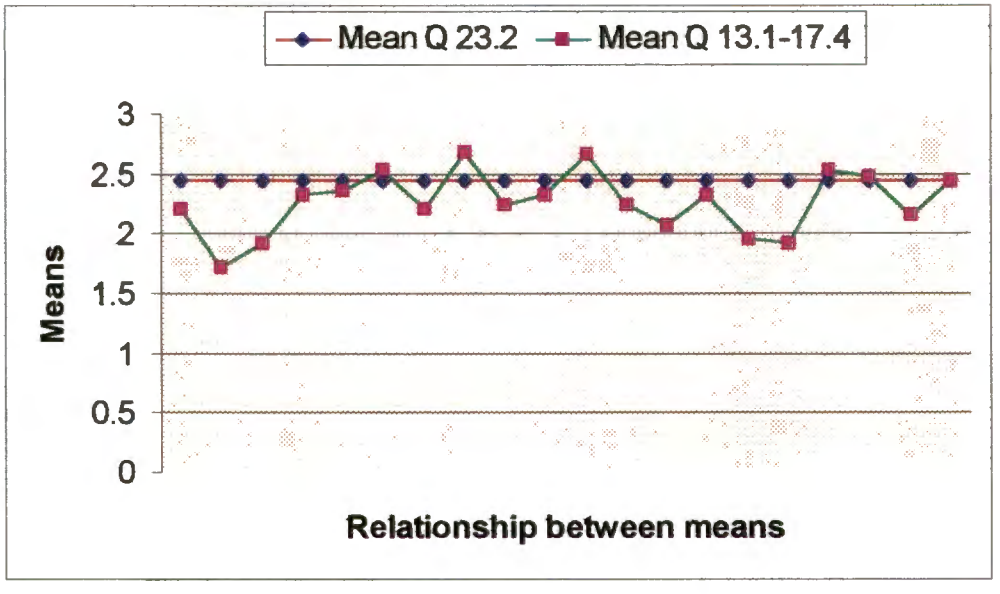


Diagram 12: Mean results of Questions 13.1-17.4 and Question 23.2



Question 23.3

" It is an integral part of the management process that focuses on the use of resources to create value"

Diagram 13: Frequency distribution of Question 23.3

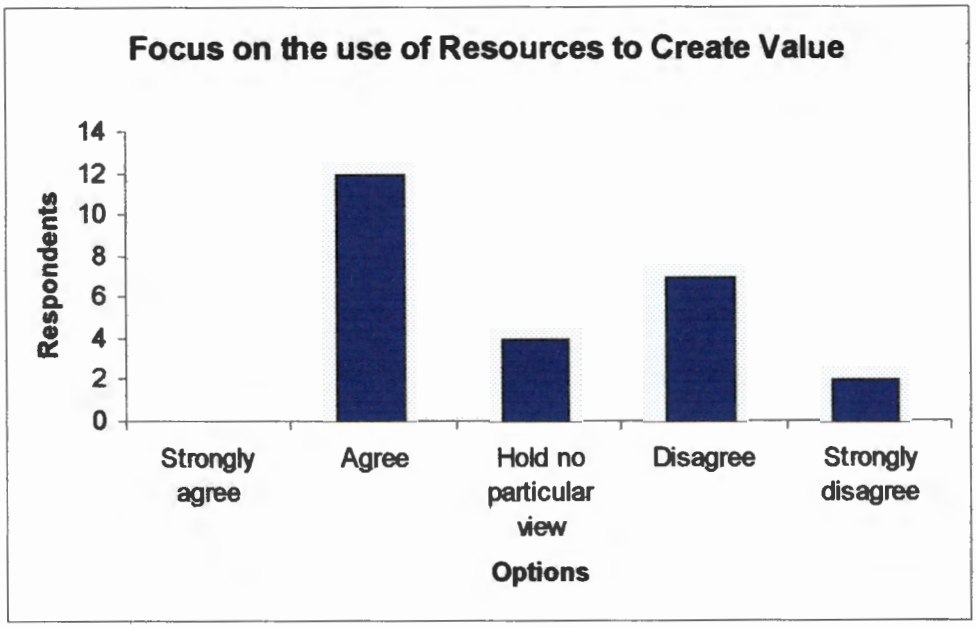
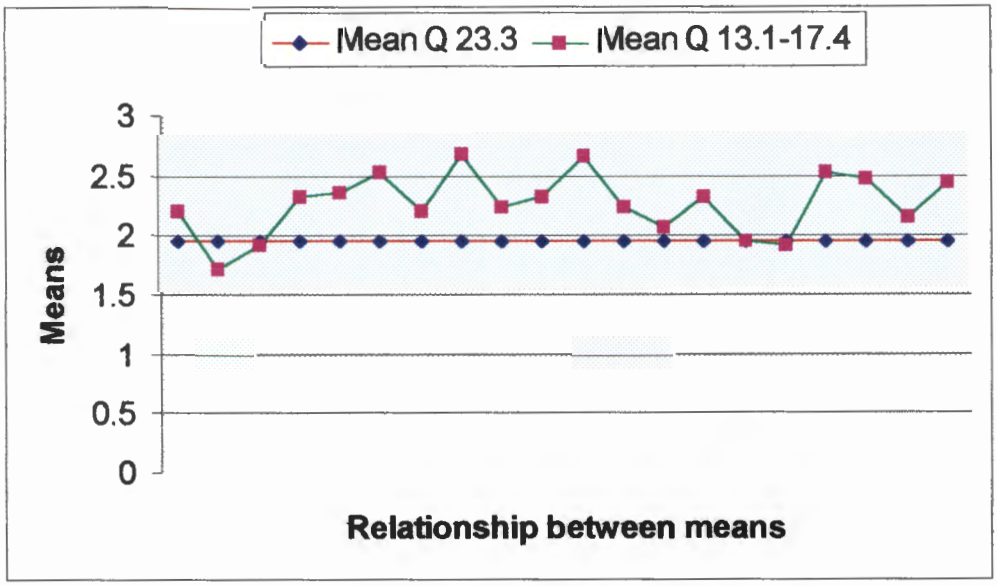


Diagram 14: Mean results of Questions 13.1-17.4 and Question 23.3



There was a positive correlation of .5718 with a standard deviation of .0025. The mean result for Question 23.3 was 1.96 with a standard deviation of 1.06 (Steyn, 2001: 4).

Diagrams 13 and 14, page 115, reflect the results obtained, as before.

6.2.2 Correlation of description of the management accounting function and the respondents' perceived technical knowledge and skills requirements

Questions 1-12 dealt with those management accounting techniques that were regarded as having undergone change. Questions 18-22 referred to the skill requirements for the proper performance of the management accounting task. Both were regarded as being persuasive of the research question (paragraph 5.5.2, page 100) and hence the correlation analysis with the respondents' description of the management accounting function (Question 23).

Question 23.1 and Questions 1-12; 18-22

Question 23.1 regarded management accounting as purely a technical activity, necessary for the pursuit of organisational objectives (Annexure 1, page 167). There was a small negative correlation between Question 23.1 and the subset of Questions 1-12 and 18-22. The correlation was -.02830 (Steyn, 2001:3). Again, this is a result of no correlation as was the case with Questions 13-17. The same arguments can be applied as were used previously (paragraph 6.2.1, page 113), and for all intents and purposes the result can therefore be ignored.

Question 23.2 and Questions 1-12; 18-22

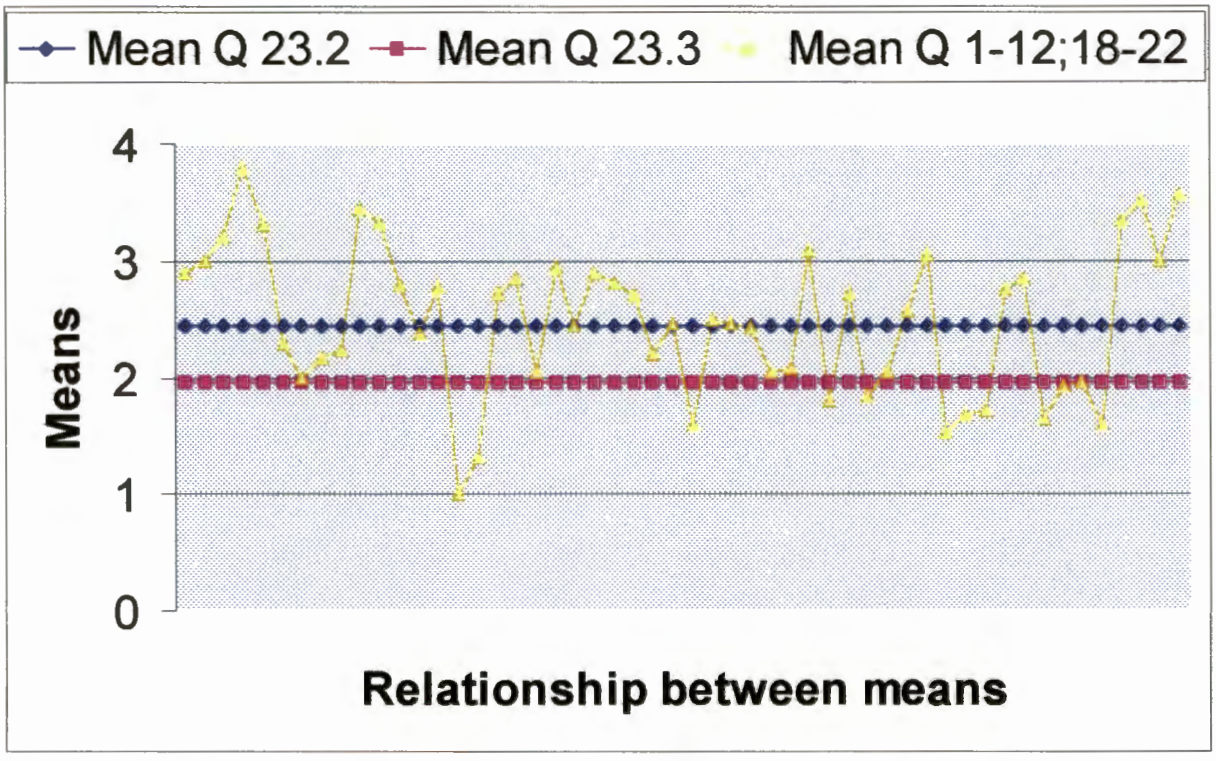
In question 23.2 management accounting is regarded as a management activity, limited to a staffing role, to provide support to line managers through the provision of information for planning and control purposes (Annexure 1, page 167). The correlation with this question was positive, .5207, with a standard deviation of .0076. This was a similar result to the one obtained previously. The average mean result of Questions 1.1-12.4; 18.1-18.4 was 2.401 with a standard deviation of .296. The mean of Question 23.2 was 2.44 (Steyn, 2001:3).

Question 23.3 and Questions 1-12; 18-22

Question 23.3 states that management accounting is an integral part of the management process that focuses on the use of resources to create value (Annexure 1, page 167). The correlation was positive, .63187, which represented the strongest correlation obtained. The standard deviation was .0007. The mean of Question 23.3 was 1.96 (Steyn, 2001:4).

The relationship between the means of these subsets of questions is reflected in Diagram 15 below.

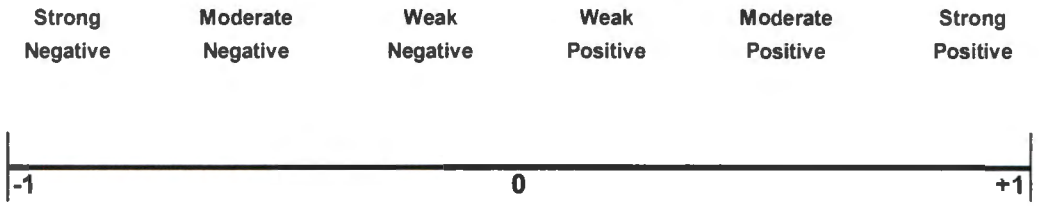
Diagram 15: Mean results of Questions 1-12; 18-22 and Questions 23.2, 23.3



6.2.3 Conclusion

The strength of the association between two random variables as represented by the correlation coefficient can be illustrated on a diagram as follows: (Wegner, 2000:617)

Diagram 16: Description of strength of correlation



There was a positive correlation (paragraph 6.2.1, page 113 and 116) between Questions 13-17 and two of the most definitive questions in the questionnaire (.544 with Question 23.2 and .578 with Question 23.3). The correlation was moderately positive in terms of the rating scale reflected in Diagram 16 above. It is the view of this researcher that this result is acceptable due to the nature of Questions 13-17. These questions were designed to involve the respondent progressively deeper into the managerial process under review and it was to be expected that the respondents would show less commitment at the deeper levels. Question 23 did not reflect a similar progression.

As described (paragraph 5.5.2, page 100) Questions 1-12 and 18-22 were persuasive rather than definitive with regards to the research question. Again the correlation was moderately positive (.520 with Question 23.2), with a leaning towards strongly positive in the case of Question 23.3 (.631).

The overall conclusion was that the result of the Pearson correlation analysis supports the validity of the questionnaire.

6.3 The research question and the hypothesis statement

The research question sought to establish the stage of development of management accounting in the Eastern Cape in terms of the conceptual framework of IFAC (paragraph 1.3, page 8). This was also a stated objective of the study (paragraph 1.5.5 and 1.5.9, page 11). The following hypothesis was formulated:

The stage of development of management accounting in large First World organisations in the Eastern Cape does not conform with the third or fourth stage of development as formulated by IFAC.

In order to find an answer to the research question and to establish either an acceptance or rejection of the hypothesis, a global mean was calculated based on all of the questions in the questionnaire. This mean, and its standard deviation, was then compared to a pre-determined minimum set of criteria necessary to establish a certain stage. This minimum set of criteria is briefly discussed.

6.3.1 Establishment of a minimum set of criteria

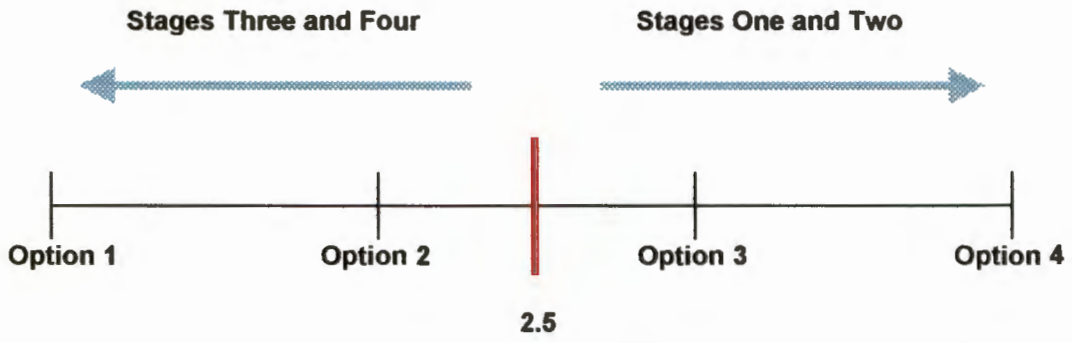
Five options were available to the respondent for each question. These were:

Option 1	Extensive part
Option 2	Significant part
Option 3	Limited part
Option 4	No part
Option 5	Not applicable

Options 1 & 2 were considered to be part of Stages Three and Four, and Options 3 & 4 to be part of Stages One and Two. Option 5 was ignored for statistical analysis purposes. The mid-point between a series of numbers 1 to 4, is 2.5. For a result that would indicate a Stage Three or Four level of development, the mean of the population plus one standard deviation, had to be less than the mid-point of 2.5. For example if the mean was 2.2 and the standard deviation was .2 then the result would be 2.4. This number would be less than 2.5 and the conclusion would be a

confirmation of a Stage Three and Stage Four level of development. In terms of the normal distribution curve, this would represent 84.13% of the population.

Diagram 17: Relationship between the stages of development and the options as reflected on the questionnaire.



6.3.2 The stage of development of Management Accounting in the Eastern Cape

The global mean of the population was 2.357. The standard deviation was .308 with a minimum result of 1.760 and maximum of 2.876 (Steyn, 2001: 4). Based on these statistics, and in terms of the normal distribution curve, the following results were extracted:

- 50% of the population was between 1.760 and 2.357
- 84.13% of the population was between 1.760 and (2.357+.308) = 2.665
- 67.72% of the population was between 1.760 and 2.5
  {z factor = (2.5-2.357)/.308 = .4642. For calculation of % see example at the bottom z-Table (Annexure 5: page 187)}
- 32.28% of the population was between 2.657 and 2.876.
  (100% - 67.72%)

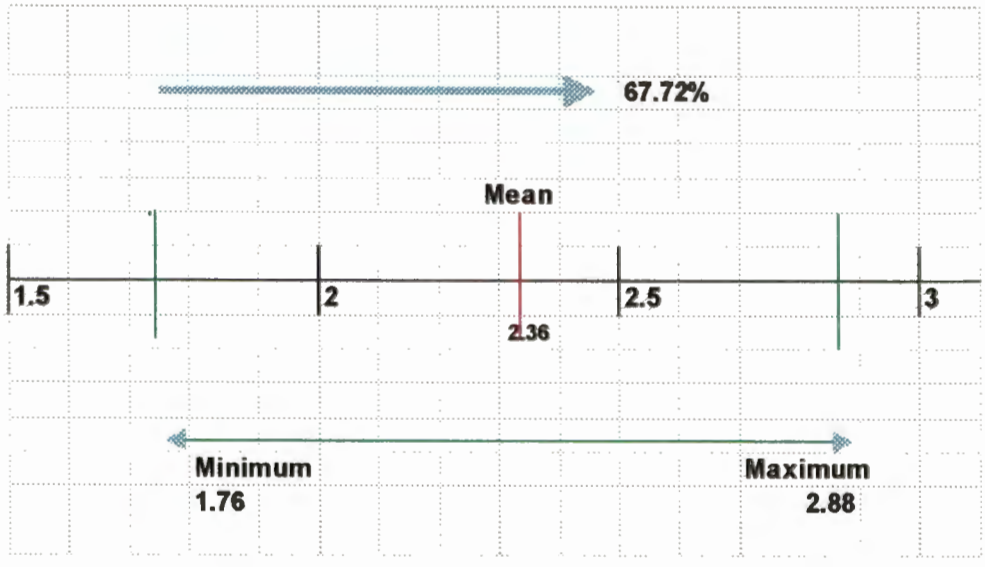
In terms of the minimum criteria stated, no definitive conclusion could be reached regarding the stage of development of management accounting as only 67.72% of the population were between the minimum observation of 1.76 and the midpoint of 2.5 (Stages Three and Four) of

development and 32.28% were between the midpoint and the maximum of 2.876 (Stages One and Two).

An acceptable conclusion for the population would be that there was a significant leaning towards Stages Three and Four of development.

The results are reflected in Diagram 18.

Diagram 18: Results of research question



6.3.3 Results in terms of the hypothesis statement (objective 1.5.9, page 11)

For an acceptance of the hypothesis, the mean, less one standard deviation must be 2.5 or greater. In this case the number was 2.049 (2.357-.308). **Only 32.28% of the population was above the midpoint of 2.5 and the hypothesis was therefore clearly rejected.**

6.4 Effect of the nature of the organisation on the research question (objective 1.5.5, page 11)

The 25 respondents were categorised as follows:

Manufacturing	18
Service & retail – private	4
Service - state owned	3

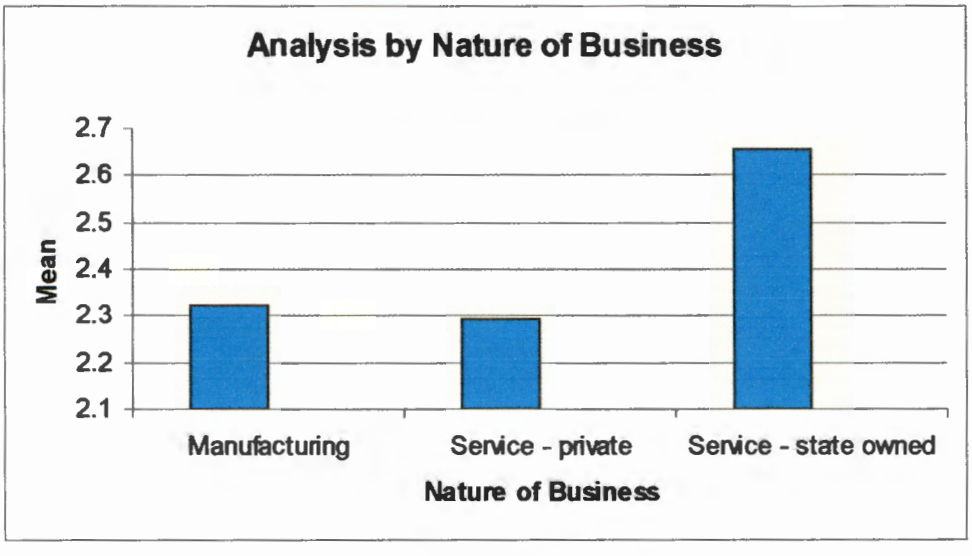
Each of these were examined in terms of the research question. As there was only one retail and distribution company, this company was included in the private service category.

The results for the three categories were as follows (Steyn, 2001: 4-6):

Table 4: Means analysis by nature of business

Nature of business	Mean	Standard deviation
Manufacturing	2.321	.292
Service & retail – private	2.293	.411
Service – state owned	2.658	.067

Diagram 19: Means analysis by nature of business



Judging purely from the evidence of the means, the privately operated service organisations fared the best in terms of their stage of development. The mean for manufacturing was slightly higher. An interesting observation was the mean of the state-owned service organisations, which was significantly higher than the mid-point of 2.5.

The categories were also analysed further in terms of their standard deviations. Using the z-table (Annexure 5, page 187), the following table of results was extracted. For purposes of clarity, the last column represents the proportion of the population between the minimum mean result and the mid-point of 2.5.

Table 5: Analysis of variability of results – nature of business

Nature	Number	Mean	Standard Deviation	Minimum	Mid-point	z-score 2.5-mean/ Std dev	% Between Min and 2.5 (z-table)
Manufacturing	18	2.321	0.292	1.760	2.50	0.613	72.91
Service-private	4	2.293	0.411	1.914	2.50	0.504	70.54
Service-state	3	2.658	0.067	2.614	2.50	-2.358	1.00
Total	25						

[Mean, standard deviation and minimum (Steyn, 2001: 4-6)]

[% Between minimum and 2.5 (z-table, Annexure 5, page 187)]

When considering the variability of results, the manufacturing and private service organisations confirmed the findings already reached, although the leaning towards Stages Three and Four had improved rather significantly, particularly with regards to manufacturing organisations. It is also interesting to note that manufacturing organisations out-performed service-private organisations when the standard deviation was taken into consideration (compare 72.91% of the population to 70.54% in Table 5 above). Service organisations exhibited a greater variability of results.

State-owned service organisations were clearly still operating in Stages One and Two of development as only 1% of the population fell below the mid-point of 2.5. This could be ascribed partly to the fact that some management accounting functions were only performed at Head Office, which in this case was not situated in the Eastern Cape. However, as already

(paragraph 5.9.3, page 108) the respondents in one of these organisations expressed a fair amount of dissatisfaction with the way that the management accounting function was performed. This is not surprising considering the results of the analysis.

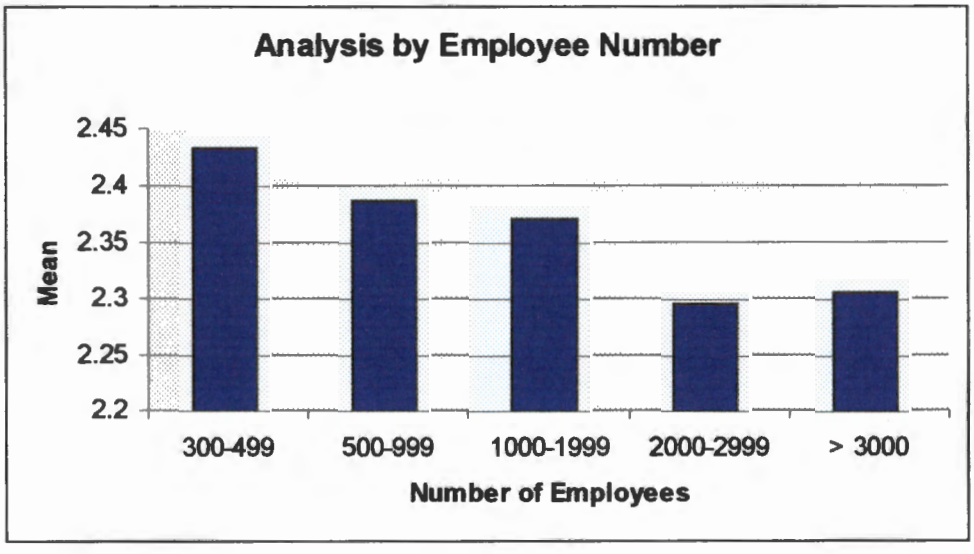
6.5 Effect of size of the organisation on the research question (objective 1.5.5, page 11)

In order to establish if the size of an organisation, as measured by the number of its employees, had an influence on the research question, the results of the questionnaire were also categorised in terms of this variable. Employee categories were:

Category	Employee Number
1	300-499
2	500-999
3	1000-1999
4	2000-2999
5	Greater than 3000

The mean results (Steyn, 2001: 7-12) for the various categories are reflected in Diagram 20 below.

Diagram 20: Means analysis by number of employees



Except for the last employee category there appeared to be an inverse relationship between the number of employees and the mean result. The difference between the means of the last two categories was relatively small, .012 (2.307-2.295) (See Table 6 below) and needed to be analysed further in terms of the variability of results.

Table 6: Analysis of variability of results by size of business

Analysis of Variability of Results

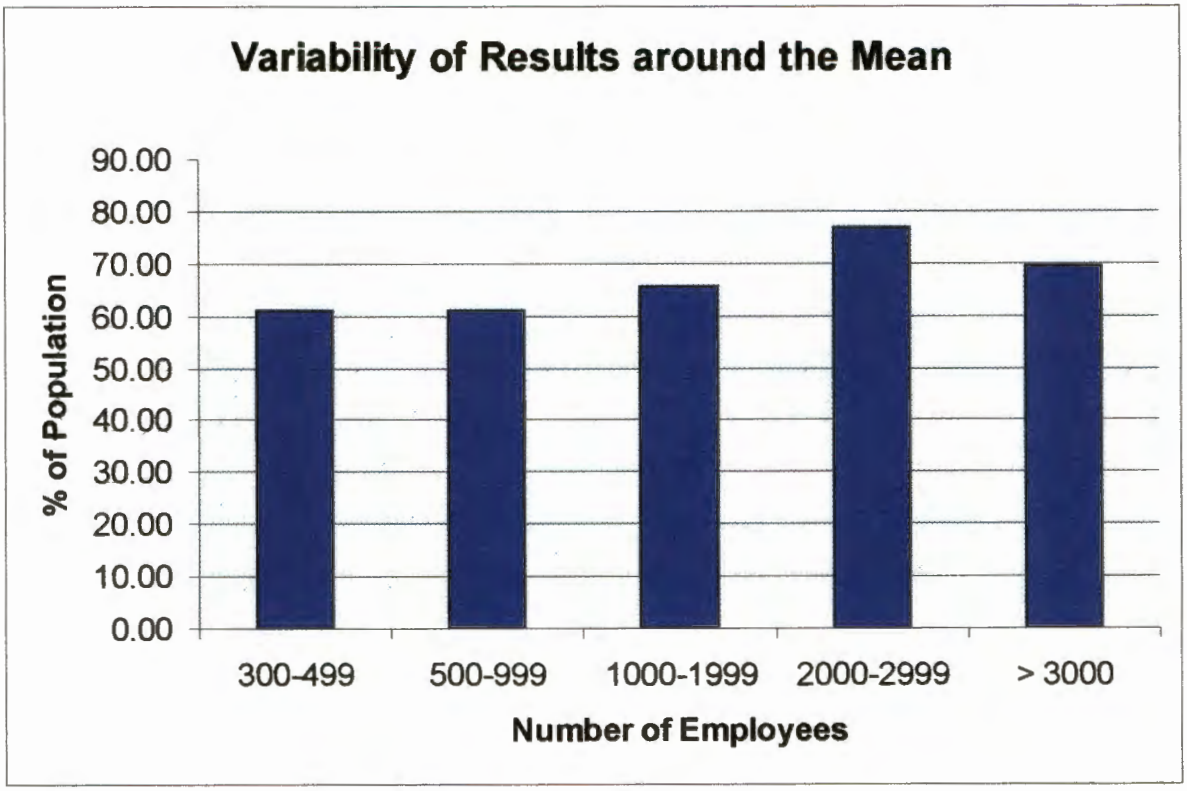
Employee Category	Number	Mean	Standard Deviation	Minimum	Mid-point	z-score 2.5-mean/ Std dev	% Between Min and 2.5 (z-table)
300-499	5	2.434	0.230	2.228	2.500	0.287	61.10
500-999	6	2.387	0.392	1.760	2.500	0.288	61.41
1000-1999	3	2.371	0.319	2.144	2.500	0.404	65.54
2000-2999	5	2.295	0.278	1.999	2.500	0.737	77.00
> 3000	6	2.307	0.378	1.914	2.500	0.511	69.50
	25						

[Mean, standard deviation and minimum (Steyn, 2001: 7-12)]

[% Between minimum and 2.5 (z-table, Annexure 5, page 187)]

This trend was also evident upon examination of the last column in the table. The % of the population between the minimum and the mid-point of 2.5 showed a steady increase with the increasing size of the organisation. The trend persisted even after the variability of results around the mean had been factored into the analysis. The aberrant result of the last category was again evident. The reason for the aberration was uncertain. Upon analysis of the individual respondents, it was noted that three of the six companies in employment category 2000-2999, had German holding companies. It was possible that the country of origin of the holding company could have had an influence. This would be analysed (Table 7, page 127).

Diagram 21: Variability of results by number of employees



6.6 Effect of culture on the research question

In Chapter Three (paragraph 3.2.2, pages 35-44) the influence of culture on the practice of management accounting was examined. The effect of culture is determined to a large extent by the country of origin of the holding company. This section examines the results of the research in terms of the holding companies.

The South African companies were divided into state-owned and privately-owned organisations. The reason for this division was also one of organisational culture. It was assumed that the culture in a privately-owned organisation would be significantly different from that of a state-owned organisation.

The countries of the holding companies were as follows:

Country	Number
South Africa (private)	13
France/Italy	1
Dutch/German	5
United Kingdom	1
United States	2
South Africa (state-owned)	3

The foreign company groupings were based on the five spheres of influence that had been identified in the literature review, British, Franco-Spanish-Portuguese, Germanic-Dutch, United States and Communistic (paragraph 3.3.1, page 44). The inclusion of Italy into the Franco-Spanish-Portuguese sphere of influence was an assumption made by this researcher, based on the actual interview conducted with that particular respondent.

The results were again analysed in terms of the mean results and variability around the mean.

Table 7: Analysis of variability of results – country of holding company

Country	Number	Mean	Standard Deviation	Minimum	Mid-point	z-score 2.5-mean/ Std dev	% Between Min and 2.5 (z-table)
UK	1	1.914		1.914	2.50		
German	5	2.227	0.282	2.017	2.50	0.9681	83.15
Italian	1	2.233		2.233	2.50		
SA	13	2.359	0.310	1.760	2.50	0.4548	67.36
US	2	2.374	0.173	2.251	2.50	0.7283	76.73
St Owned	3	2.658	0.068	2.614	2.50	-2.3235	1.00
	25						

[Mean, standard deviation and minimum (Steyn, 2001: 12-17)]

[% Between minimum and 2.5 (z-table, Annexure 5, page 187)]

Judging purely from the evidence of the means, the country of origin of the holding company did seem to have an influence on the research question. The number of respondents in each category however, precluded any significant conclusion that could be made. There was only one United Kingdom-based company (a service company) in the largest employment category. The United States had two companies represented, and Italy only one. Germany, however, was reasonably well-represented, with five companies and scored second lowest, which provided support for the assumption made in the previous section (paragraph 6.5, page 125).

The effect of the holding country on the mean score and the variability of results is illustrated in Diagram 22 below and Diagram 23, page 129. No variability of results can be calculated if there is only one respondent in the population as was the case for the United Kingdom and Italian companies.

Diagram 22: Means analysis by country of origin of holding company

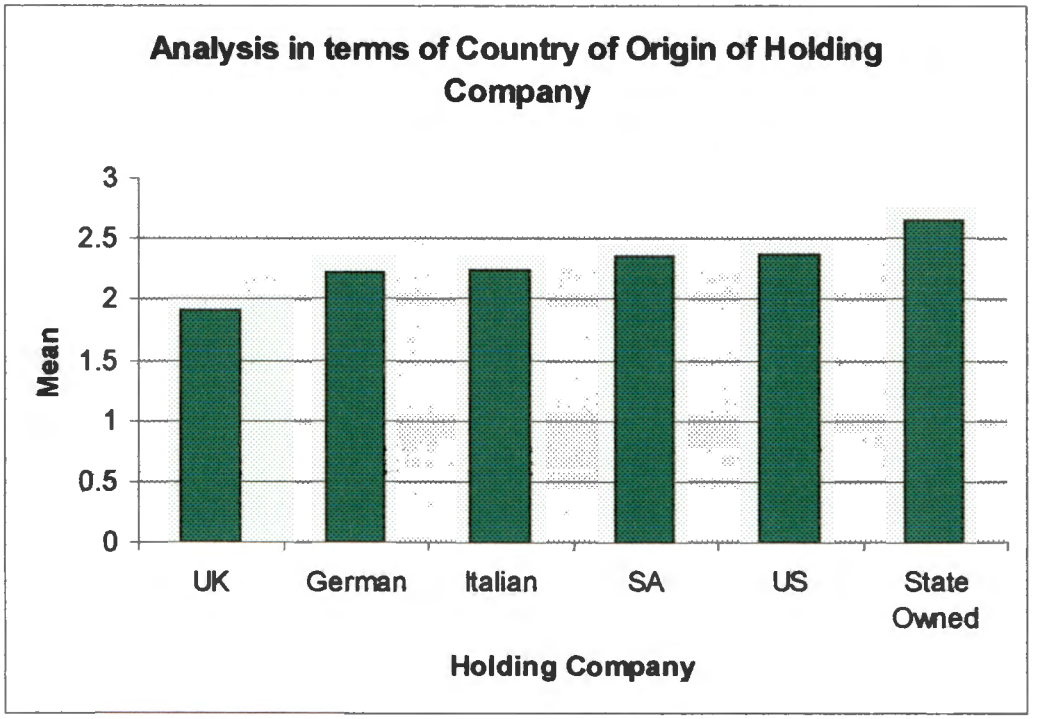
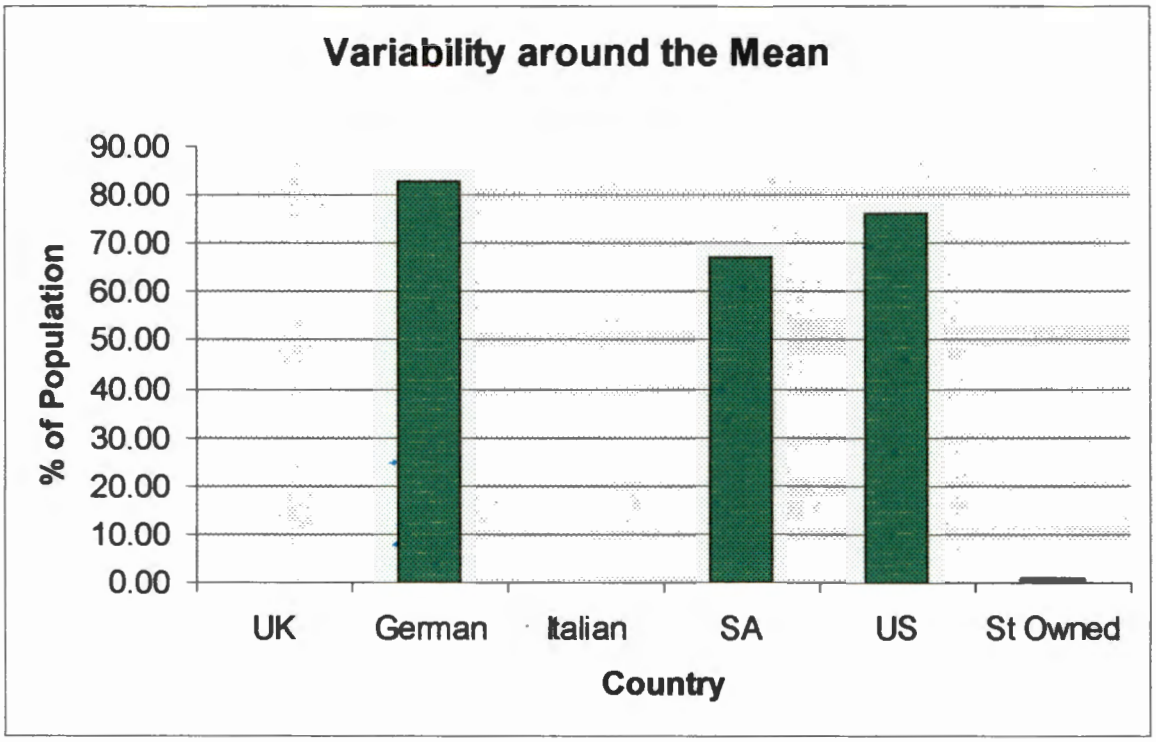


Diagram 23: Variability of results by country of origin of holding company



The results confirmed prior conclusions reached:

1. State owned companies were in Stages One and Two of development.
2. German holding companies appear to have a positive influence on their South African subsidiaries in terms of the research question. It should also be noted that the German companies, as a category, could almost be considered to be in Stages 3 and 4 of development as 83.15% of the population fell between the minimum result and the mid-point of 2.5 (Table 7, page 127). The minimum criteria is 84.13%.
3. The suggested reason given (the presence of three German companies in the second largest category), for the aberrant result in organisational size (paragraph 6.5, page 125) was also confirmed.

6.7 Analysis of the individual organisations in terms of their means

The final means analysis that was made was a comparative study of each individual organisation. The reason for this analysis was partly one of interest, as it would highlight those particular organisations that fared best and those that fared worst, in terms of the research question. It was also necessary to consider whether certain individual results should perhaps be discarded as outliers, based on the particular circumstances surrounding the organisation at the time or on the actual interview that took place. A further reason was that it could possibly provide additional support for the findings regarding the stage of development of management accounting as reflected in paragraph 6.3.2, page 121 (objective 1.5.5, page 11). These results were illustrated on a line graph (Diagram 24, page 131) and summarised in a schedule (Table 8, page 133) that provided an indication of the stage of development of the various organisations.

The analysis reflected a mean result that ranged from 1.7604 to 2.8763 (Steyn, 2001: 2-4) with a standard deviation of .3081 (Table 8, page 133). Based on the minimum criteria established (paragraph 6.3.1, page 119), seven companies fell within Stages Three and Four of development (indicated in blue on Table 8) and two in Stages One and Two (indicated in red on Table 8). The companies were identified by means of a number for further discussion purposes.

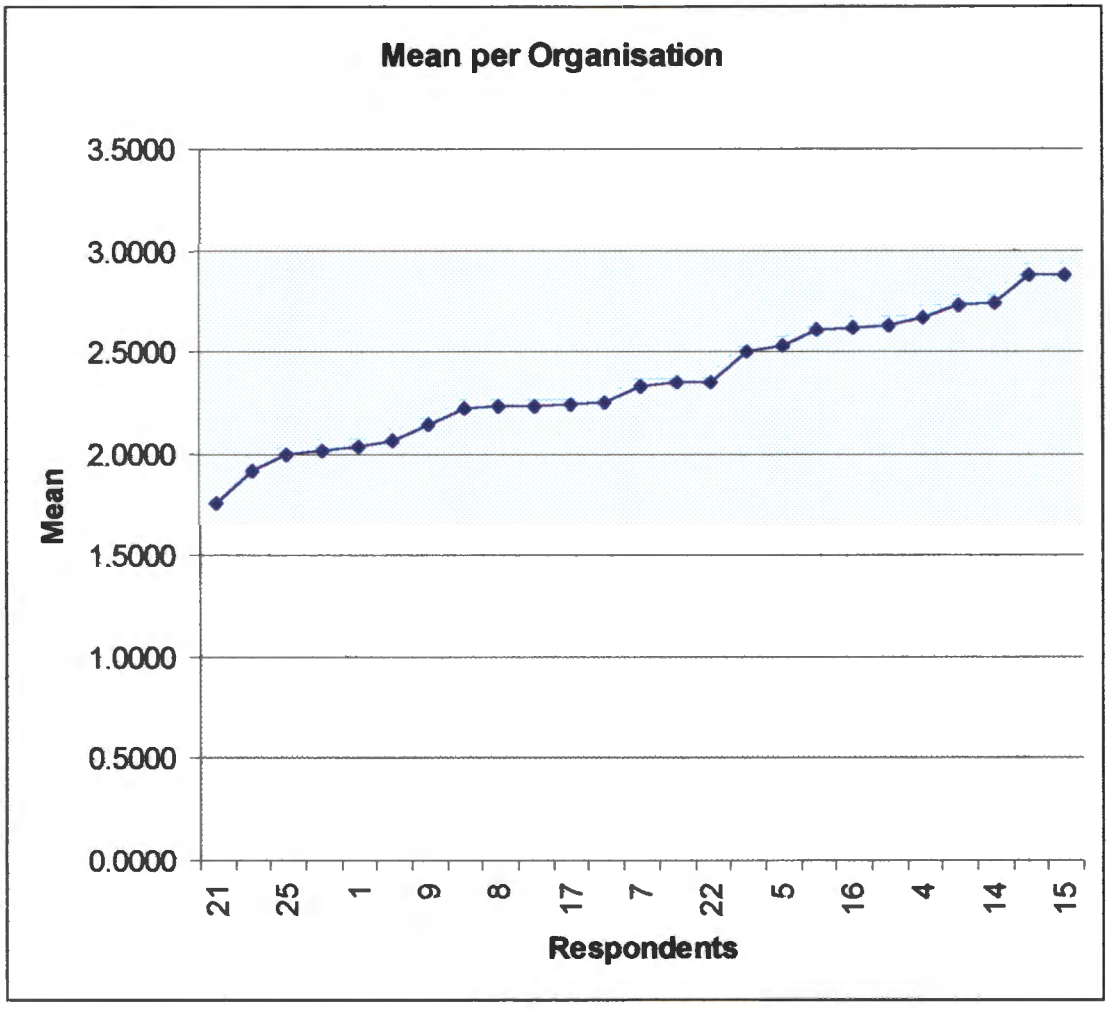
Sixteen organisations had a mean result lower that the mid-point of 2.5 (Diagram 17, page 120). This translated to 64% of the total number of organisations in the population and did indeed lend further support to the conclusion reached regarding the stage of development of management accounting in the Eastern Cape (paragraph 6.3.2, page 121).

6.7.1 Comments on some of the organisations in Stages Three and Four of development

Respondent Twenty-One scored the best in terms of this analysis. This was a South African textile manufacturing concern that employed nine hundred persons. It is the view of this researcher that the result should be treated with some degree of caution. This interview was conducted at 16h30 in the afternoon and the respondent concerned was very obviously in a hurry to get it completed. The interview lasted only thirty minutes in contrast to others where the duration was anything from one to three hours, excluding the pilot group. Furthermore, the researcher arrived ten minutes late, which exacerbated the situation. The reason for being late

minutes late, which exacerbated the situation. The reason for being late was that the previous interview lasted around two hours. This was with a private transport company in Port Elizabeth,

Diagram 24: Mean result per organisation



where the respondent showed great interest and seriously applied his mind to the questions under consideration.

Respondent Number Twenty-One also exuded an attitude of boredom. At one stage she passed a rather facetious comment, along the lines of, "Oh dear, it seems as though I am scoring too well, let me change my approach for the last few questions". As these observations are purely

perceptions of the researcher, it is believed that the questionnaire concerned should not be discarded as an outlier.

Respondent Number Three was a subsidiary company of a United Kingdom-based holding company. The nature of the business was the provision of health services and the number of employees was approximately three thousand. The interview was conducted with the financial manager, who was a professionally qualified accountant, CA(SA), and lasted approximately one and a half hours. If the rating of companies were to be based on qualitative measures, this researcher would have rated the company as number one on the list. The respondent was clearly a business oriented person; this in contrast to the 'bean counter' public image of an accountant.

From a technical point of view, the company scored well on issues such as ABC costing for overheads, customer orientation, continuous improvement and bench-marking. With regards to the definitive Questions 13-17, the respondent was extensively and significantly involved in the various functions regarding management process participation. He cited many practical ways in which this participation occurred.

Lastly, if enthusiasm and confidence were influential in determining the role of the management accountant, then this particular respondent would score very highly. This researcher is also confident of being able to make an informed judgement as to the relevancy and progressive nature of the management accounting practices implemented in this case, based on personal, prior extensive experience in the health sector.

Respondents One, Ten and Twenty-Three were subsidiary companies of German holding companies. The superior performance of these companies in terms of the research question has already been noted. To establish exactly why this should be the case, is an area for further research. It is the belief of the researcher that integrated advanced information systems, installed by all of these companies, could be a contributing factor.

Respondent Twenty-Five was a textile manufacturing company with an employee number of two thousand and fifty-three, situated in Dimbaza, an industrial area established by the government of South Africa during the 1970's as a decentralised subsidised economic growth-area, in order to provide employment to local population. The area is characterised by extreme poverty and it

necessary to travel through large squatter settlements in order to reach the company. The reason for the strong performance of this company, in the view of this researcher, is captured in the following statement made by the management accountant:

"Over the years, this department has changed from merely accounting to the main focus-point with regards to the running of the entire factory."

Table 8: Schedule of means analysis per organisation

Respondent	Mean	Mean + 1 Std dev	Mean - 1 Std dev
21	1.7604	2.0685	1.4523
3	1.9137	2.2218	1.6056
25	1.9993	2.3074	1.6912
10	2.0174	2.3255	1.7093
1	2.0361	2.3442	1.7280
23	2.0625	2.3706	1.7544
9	2.1444	2.4525	1.8363
20	2.2284	2.5365	1.9203
8	2.2326	2.5407	1.9245
11	2.2326	2.5407	1.9245
17	2.2409	2.5490	1.9328
2	2.2514	2.5595	1.9433
7	2.3324	2.6405	2.0243
24	2.3513	2.6594	2.0432
22	2.3550	2.6631	2.0469
18	2.4965	2.8046	2.1884
5	2.5284	2.8365	2.2203
13	2.6137	2.9218	2.3056
16	2.6250	2.9331	2.3169
6	2.6263	2.9344	2.3182
4	2.6687	2.9768	2.3606
12	2.7270	3.0351	2.4189
14	2.7361	3.0442	2.4280
19	2.8750	3.1831	2.5669
15	2.8763	3.1844	2.5682
	58.9314		
Standard Deviation	**0.3081**		
Average mean	**2.3573**		

6.7.2 Comments on the organisation in Stages One and Two of development

The organisation with the worst performance with regard to the research question, was a large manufacturing concern (three thousand, five hundred and eighty six employees). A professionally

qualified accountant, CA(SA), also performed the management accounting function in this organisation. Possible reasons for this poor performance have already been alluded to (paragraph 5.9.3, page 108) where the institutional nature of the role of the management accountant, and in particular the importance of the perception of power attached to certain individuals, was discussed. Upon further analysis, this company was still using a single cost driver to allocate fixed overheads, in contrast to other similar companies, who were all into ABC costing. Management accountant participation in the organisational management process was also limited. More importantly, this particular respondent viewed the management accounting process as one that stood apart from other managerial or operative processes and merely reported to them in a functional capacity.

Again, a note of caution is perhaps necessary. The respondent concerned applied his mind very carefully to the questions under review and if an error of judgement was made, prudency, in true accounting and auditing style, would have been the motivation. This interview also lasted approximately two hours. The institutional role of the management accounting function, the effect of power distributions within in an organisation , routines and institutions are all areas for further research.

Respondent Number Nineteen was a state-owned service organisation. This category of organisation has already been discussed under the nature of business (paragraph 6.4, pages 122-124). The only additional comment that this researcher wishes to make is based on the quotation of Hopwood (1987:211) (paragraph 2.5, pages 28-29) where he stated that accounting practice needed to be seen as playing a more active role in creating, rather than merely enabling, organisational endeavour. This thesis was further expounded (paragraph 3.4, pages 57-60) where the role of accounting in developing countries was discussed. Gray's suggestion (Maunders et al., 1990:91) that management accounting could be utilised to influence the directions of economic development processes in developing countries, is particularly relevant. It is rather sad that the respondents concerned (three attended the interview, see paragraph 5.9.3, pages 107-108) all expressed a desire to do so much more, but were precluded from doing so based on the culture of the organisation concerned. It would not take much to turn this all around and it is perhaps an indictment on the accounting profession in South Africa that they have not involved themselves, to the extent that they could have, in the operation of public enterprises.

6.8 The implementation of activity-based-costing

The issue of aggregation of costing methods, particularly as they relate to the application of overheads, was at the heart of the criticism levelled by Johnson and Kaplan (1987:1) against the practice of management accounting. The response of both theory and practice to this criticism has been the development and implementation of activity-based-costing. In the research conducted, this technique was regarded as being an important element of change. This analysis was also referred to as one of the objectives of the research for the reasons mentioned (paragraph 1.5.6, page 11).

In Question 1 (Annexure 2, 170) the respondents were asked to indicate the extent to which the following costing methodologies were employed for the allocation of fixed overheads:

1.1 Single cost driver
1.2 % of raw materials
1.3 Activity-based-costing
1.4 % of prime cost

Options 1.1, 1.2 and 1.4 were regarded to be indicative of Stages One and Two of development. Option 1.3 would support Stages Three and Four.

The results are illustrated in diagram 25, page 136. There were only twenty-four respondents in the population as the function did not apply to a large food retailing organisation. The results indicated that nine respondents were either using the technique extensively or significantly, two were applying the technique in a limited way and thirteen not at all (Steyn, 2001: 40). This translates to a usage of only 37.5% (9/24) and therefore does not indicate wide-spread acceptance and implementation.

An analysis was made of all companies employing the technique (Table 9, page 136). Except for two, all companies concerned, employed in excess of one thousand five hundred employees and could therefore be considered as large. The reason for the relatively poor support is not clear and is an area for further research. The difficulty of implementing ABC and particularly the cost benefit implications, should however not be under-estimated. One of the most extensively used

information systems and used by a number of the respondents, is SAP. ABC was only recently incorporated into this system. Judged from the comments of the respondents, it is a very expensive system, that requires specialists to install and maintain and who in turn are scarce and expensive.

Diagram 25: Implementation of activity-based-costing

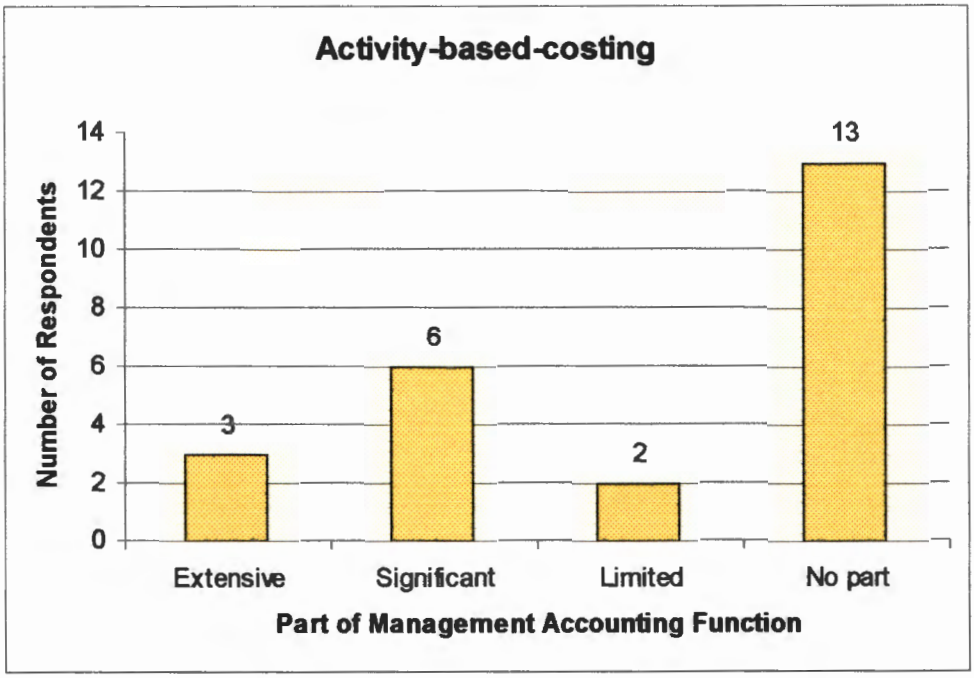
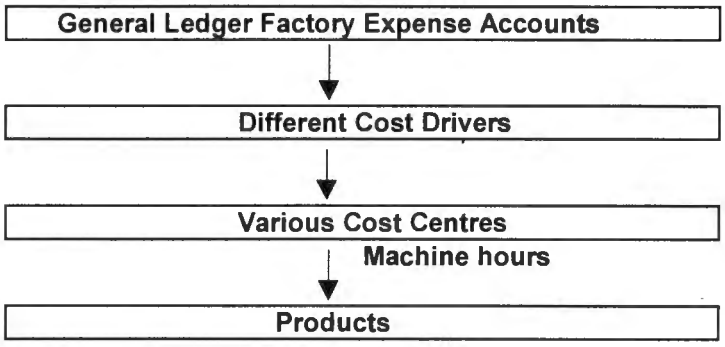


Table 9: Companies significantly employing activity-based-costing

Nature of Business	Country	Number
Manufacturing	Germany	3
Manufacturing	USA	1
Manufacturing	SA	2
Service - Health	UK	1
Service- Financial	SA	1
Service - State owned	SA	1
Total		**9**

The last company interviewed, and not included in the population for statistical analysis purposes because the interview took place after the data had been submitted to the statistics department of the university, provided further interesting insight into the difficulties involved in implementing activity-based-costing. This particular company was a subsidiary of a Swiss holding company, the largest food manufacturing company in the world. The holding company was intimately involved in the systems, procedures and policies of the subsidiary. In fact, detailed costing manuals, which included the desired methodology of overhead assignment, were provided.

Upon examination of these manuals, (this interview lasted the entire morning), it was noted that the following method of overhead allocation was used:



The initial entry of costs were recorded into numerous general ledger cost accounts. Thereafter the costs were assigned to various cost centres using the typical ABC type drivers (number of orders, number of employees, square meterage, kilowatt usage and so on). Finally, the costs in each centre were assigned to the various products based on machine hours. There were a large number of products and the company (i.e. the holding company), accepted that machine hours did not result in an accurate cost assignment, but was the most cost-efficient method in the circumstances. Considering the stature and size of this holding company in the global arena, this was a significant comment.

A rather interesting method to assign factory fixed overheads, currently under review in this holding company, is the so-called 'cost of complexity' method. This method involves, firstly, establishing the costs of manufacturing high-volume products. Thereafter, all additional costs are considered as costs of complexity and are assigned to the low-volume products, which in this

case constitute 80% of all products (the typical Kaplan scenario). These additional costs are the ussual machine set-ups, which in a food manufacturing company include cleaning and sterilisation of equipment each time the batch is changed, raw material procurement, complexity of packaging and so on. There is also an inverse relationship between capacity utilisation and the cost of complexity which must be factored into the calculations.

This method is still under review and has not yet been implemented in the company concerned. It has intuitive appeal and certainly is an interesting area for further research. The management accountant has indicated his willingness to allow this researcher to conduct an in-depth case study on this company at a later stage.

6.9 The existence of financial reporting bias

6.9.1 Introduction

A section of the quotation used in the introductory chapter (paragraph 1.1, page 1) reads as follows,

"..driven by the procedures and cycles of the organisation's reporting system..."
Johnson and Kaplan (1987:1).

The organisation's reporting system referred to is the external reporting system, i.e. the financial reporting system. One of the major criticisms levelled against management accounting is its bias towards the requirements of external financial reporting. In the section on the historical evolution of management accounting, reference was made to the 'Littleton School', (paragraph 2.3, pages 22-23). In this school of thought, costing was described as a means of attaching costs to products purely for matching and income purposes. The critical difference between the practice of management accounting in the United States of America and the United Kingdom on the one hand, and continental Europe, on the other, is the issue of financial reporting bias. As was described in the analysis of management accounting as practised in different countries (paragraph 3.3, pages 44-56), the discipline in France and Germany developed separately from financial accounting and has remained separate, which cannot be said of the United States of America and the United Kingdom.

The reason for the inclusion of this section in the questionnaire is twofold. Firstly, it has a direct bearing on the research question and was also included as an objective for the research (paragraph 1.5.6, page 11). One of the hallmarks of companies functioning in the third and fourth stage of development of management accounting, is a distinct movement away from the requirements of financial reporting, particularly in relation to product costing and reporting cycles. A further reason is that, in the opinion of this researcher, this is an area where significant change still needs to take place if the management accounting function is to retain its relevance into the future.

As already alluded to in the introductory chapter (paragraph 1.4, page 10), financial accounting is a major component of training of professional accountants within the South African Accounting Institutes. It is not the intention of this researcher to question the judgement of these Institutes; rather the issue at hand is the apparent dominance of this discipline in relation to that of financial management and management accounting.

In an article describing the preparation of trainees for the award of the Certified Professional Accountant qualification in America, Tinker and Koutsoumadi (1997:454-467) found the following:

1. If accounting was synonymous with auditing work undertaken, then there was a widespread decline in the work undertaken by the 'big six' CPA firms.
2. 90% of all CPA's end up in employment outside public practice.
3. The number of students enrolling for the CPA program had declined significantly and steadily over the past number of years.
4. That there was a proliferation of new accounting-related professional bodies in the United States that suggested that new forms of accounting were not adequately developed by many CPA firms. Examples were the Institute of Certified Management Accountants, The Institute of Internal Auditors and the Institute of Chartered Financial Analysts. These other accounting bodies also exhibited higher rates of growth of membership.
5. That a study of the professional history of the American Institute of Certified Professional Accountants, indicated that informing students about the evolving

character of the accounting field had rarely been a priority for the profession. In fact, they state that the reverse was the case and that the profession's conservative and reactionary posture regarding new forms of development, was a self-serving one.

6. There was a resistance to educational and training reforms. Even modest changes in the CPA examination syllabus were resisted. Management accounting was only 'begrudgingly tolerated', whilst information systems, internal auditing and government accounting were woefully neglected.

6.9.2 Motivation for the nature of the questions asked

In the financial reporting bias section of the questionnaire (Annexure 2, page 176), the respondents were asked to respond to the following issues:

Q22.1 The preparation of a single stock valuation schedule, suitable for financial and management accounting reporting purposes;

Q22.2 The preparation of equal reporting periods for financial and management accounting purposes;

Q22.3 Performance measurement of various products and business units based on financial reporting cycles;

Q22.4 The preparation of fixed-asset depreciation schedules suitable for financial and management accounting reporting purposes.

A short motivation for each section is provided.

6.9.2.1 Single stock valuation schedules

Hirsch (1994:74) states that the only costs that are assigned to products are those that financial accounting describes as product or inventoriable costs. For example, he states that while a portion of the cost of a manufacturing supervisor's salary is allocated to products, none of the costs associated with the sales-person, whose sole assignment is that product, are assigned to the product. These costs would be considered as period costs and written off in the period concerned. The same argument applied to research and development costs and costs associated with the

management of waste and effluent resulting from the production process. Eventual decommissioning costs are also treated as period costs. This is in contrast to the concept of life-cycle costing that endeavours to factor all costs into the cost of a product, from the cradle to the grave.

In terms of South African Generally Accepted Accounting Practice (GAAP), only costs that relate to bringing inventory into its present location and position are included in the valuation of stock. Selling expenses and storage costs are specifically excluded (Wingaard & Becker, 2001:74). The motivation for these exclusions is simply one of prudence as such inclusions will result in higher profits being reported. From a perspective of systems for managerial decision-making, all relevant costs should be included. A fully-fledged ABC system for example, would include all traceable customer related costs, and if properly applied, the result should be separate stock valuation schedules for external and internal reporting purposes.

6.9.2.2 Differing reporting periods

Various products or groups of products have differing life cycles. In order to establish profitability, these life cycles should be taken into consideration. In order to do this, the management accounts should include sections where the reporting periods are based on these life-cycles, rather than exclusively reporting in terms of financial accounting periods.

6.9.2.3 Reporting in terms of products or business units

From a managerial decision-making point of view, internal accounts should also include profit statements per product or business unit, and not purely in aggregated form as stated by Kaplan and Johnson (1987:1).

6.9.2.4 Fixed assets schedules and depreciation calculations

The issue of depreciation is an age-old vexed question that has frustrated the accounting fraternity since the early railway days of the Nineteenth Century, when it first rose to prominence. During the succeeding years it has been a highly controversial accounting issue (Mathews & Perera, 1991:141). It is not the intention of this researcher to delve into all the

determined for financial accounting purposes. Issues such as sunk costs, opportunity costs and notional charges should be factored into the depreciation charge for costing purposes (Hirsch, 1994:79-80).

6.9.3 Results obtained

The results of this section (Steyn, 2001: 40-58) are reflected in Diagrams 26-29, pages 142-144.

Diagram 26: Separate stock valuation schedules

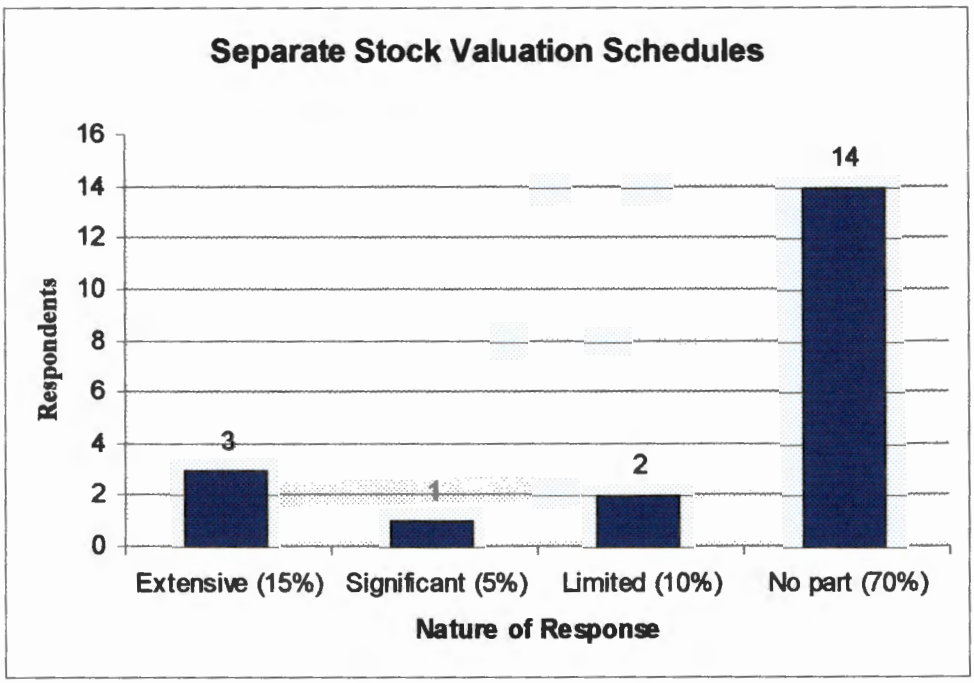


Diagram 27: Different reporting period

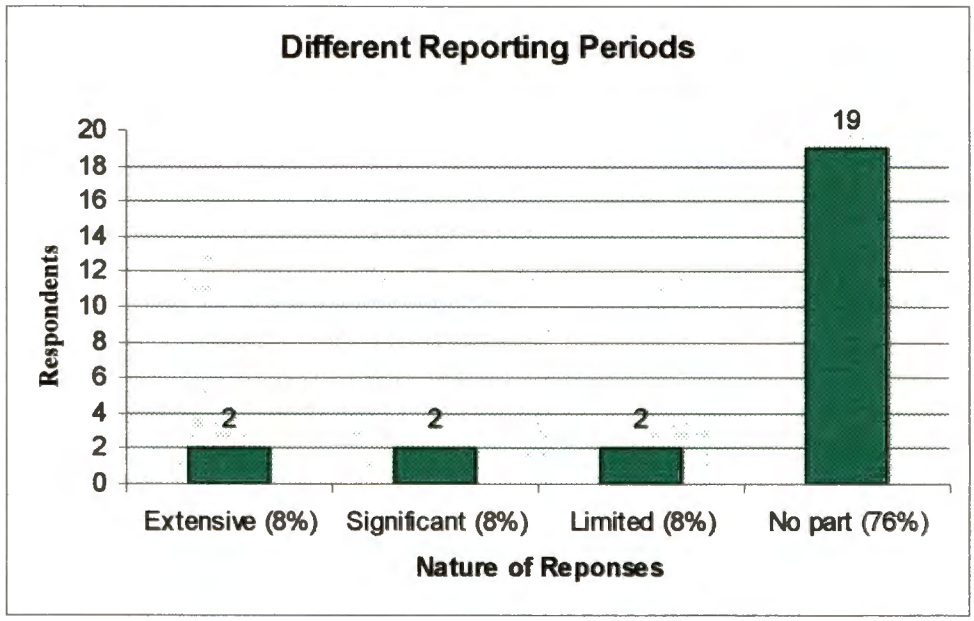


Diagram 28: Reporting by product

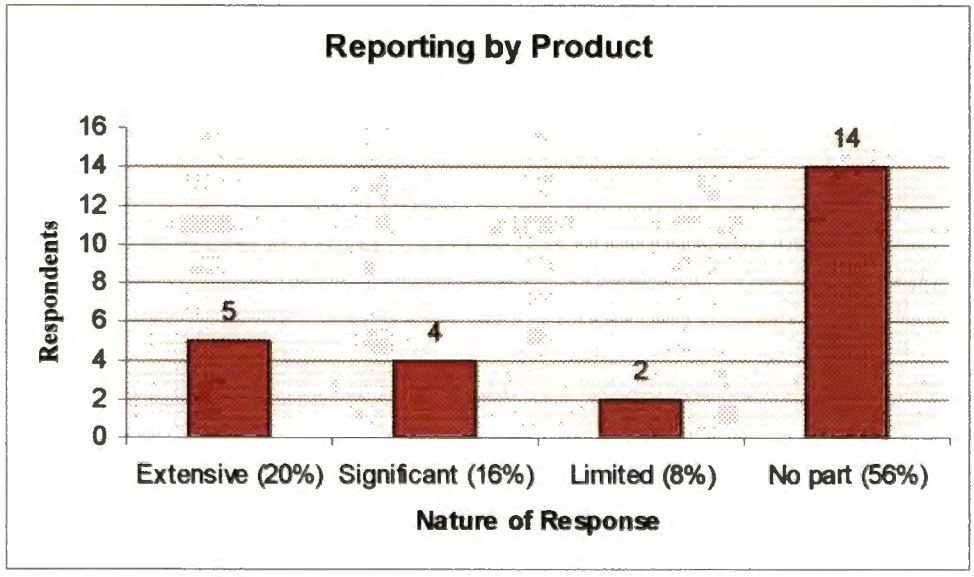
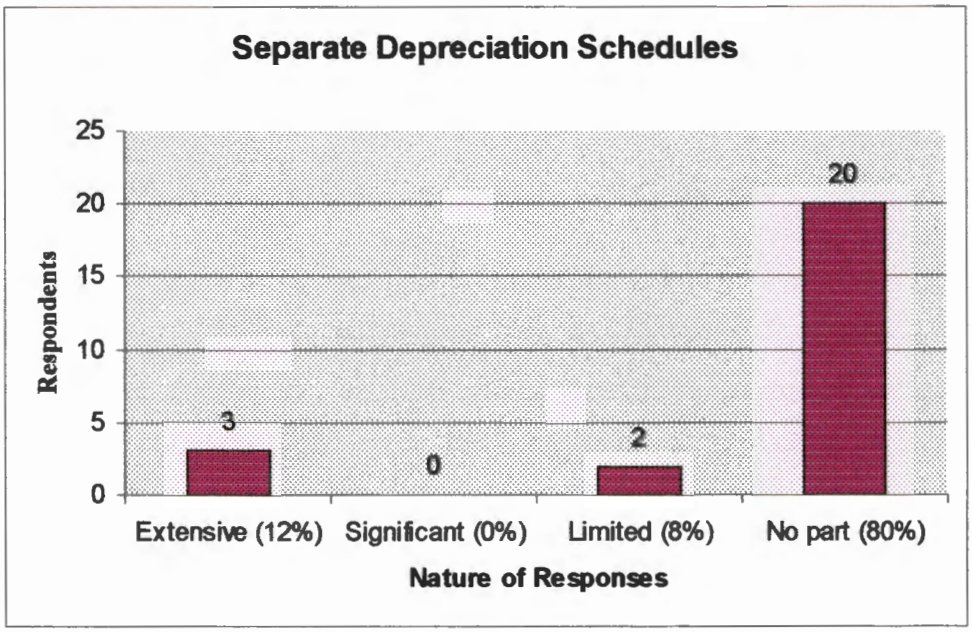


Diagram 29: Separate depreciation schedules



6.9.4 Comment and conclusion

Based on the responses to these questions, a strong bias towards financial reporting was evident. In fact the 'no part' option varied from 56% (reporting by product) to 80% (maintaining separate depreciation schedules). Upon reflection, the question of relevancy regarding the issues raised, needs to be asked. It is possible that the questions were not stated clearly enough or that the researcher did not explain in sufficient detail what was required, or that the issues were simply not perceived to be relevant to the practice of management accounting. These probable weaknesses are acknowledged and the results are therefore not considered to provide conclusive evidence of financial bias. However there are certain comments that perhaps can be made.

The result for maintenance of separate schedules for stock valuation was particularly disappointing in that 70% of respondents did not make any differentiation whatsoever. Accurate product costing is central to cost accounting and is a critical issue for managerial decision-making purposes. This result provides further support to the result obtained for ABC, as the implementation of this method will result in separate stock schedules. Upon closer analysis, it is

again the German/Dutch controlled companies that are the exception, three of the four in the group concerned. Included in this group is the Italian controlled company, which makes up the fourth member. With the latter, the result is not surprising as the company concerned reported in terms of the General Accounting Plan and the 'tableau de borde' (paragraph 3.3.3.2, pages 49-50). This finding lends further support to an earlier comment made (paragraph 6.7.1, page 132) that integrated sophisticated information systems are an important factor in the development stage of the management accounting function in an organisation.

The results of this section perhaps do support the notion that in continental countries, in particular Germany and France, the prominence and profile of the controller surpass that of the financial accountant who is seen purely as a bookkeeper. The qualification route of the controller in Germany was discussed in chapter three (paragraph 3.3.3.3, page 51). Financial accounting is not a feature of this training. The emphasis is on economics, and issues such as product costing are studied in the finest detail. An interesting anecdotal incident that occurred during the field study conducted is mentioned in support of this line of thinking.

The interview with a major vehicle manufacturing company (German holding company) was conducted late on a particular Friday afternoon. Prior to the interview, the controller introduced the researcher to the financial accountant who was a South African national with a CA(SA) qualification. The controller was a German national with an MBA. In this case the interview lasted all of two hours as the respondent became very involved in the issues under discussion. At one stage a slight argument as to the exact nature of ABC developed between the researcher and the respondent; perhaps not the best interviewing technique, but the eventual results were good. The rather excited nature of the discussion was overheard by the financial accountant, who suddenly found all sorts of reasons to 'pop' into the office where the interview took place.

The following day, the researcher happened to be attending a GAAP update held at the local country club and during the tea break was approached by the financial accountant concerned, who also happened to be there. The informal discussion that ensued provided further insight and support to the differences of approach and emphasis between financial accounting and controlling. The financial accountant expressed frustration at the lack of understanding that the controlling function had of basic accounting principles. He stated that, in his opinion, one of the major problems of the organisation concerned, was that persons in strategic and pivotal roles,

appeared to act and think in silos. There is no doubt that both persons concerned were extremely capable and competent and that the basic problem was probably one of business culture and perception of the function of management accounting.

Differential product reporting occurred either extensively or significantly in 36% of the companies. Although a poor result, it featured best of the four issues under review. As far as separate depreciation schedules are concerned, 80% of the companies did not account differently for management accounting purposes. Again, a disappointing result, but issues of cost benefit should be considered. A weakness of the questionnaire was that the question (Question 22.4, page 170) should have specifically related the calculation of the deprecation charge to product costing. It is quite possible that the result would have been different if there was a direct connection in the question between product costing and depreciation.

Finally, as already mentioned, it is accepted that a definitive conclusion as to the extent of financial accounting bias cannot be made on a superficial analysis of four questions in a questionnaire. At most it can be said that there is evidence to support the criticism of financial reporting bias and that further research, particularly case study research, is necessary.

CHAPTER SEVEN

CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

7.1 Introduction

At the beginning of this research (paragraph 1.1, page 1) an accusation of relevance lost was made by certain writers against the practice and conventional wisdom of management accounting. Numerous calls were made for change. These calls included change from a functional approach to that of a business process approach, change from an internal focus to an external focus with the customer assuming centre stage, and a move away from policing activities and ownership of financial management systems to facilitation and technical support.

An analysis was made of various conceptual frameworks. These frameworks featured the evolutionary nature of management accounting and all agreed that the desired state of the art was a focus on resource and strategic cost management. Certain authors, notably Shank (1989:60), regard these changes as more than just evolutionary, and speak of paradigm shifts. The power of paradigms to shape collective thinking is well documented and is regarded as the Kuhnian view. The Kuhnian view requires all practising researchers to subscribe to one theoretical structure at a time (Mathews & Perera, 1991:45).

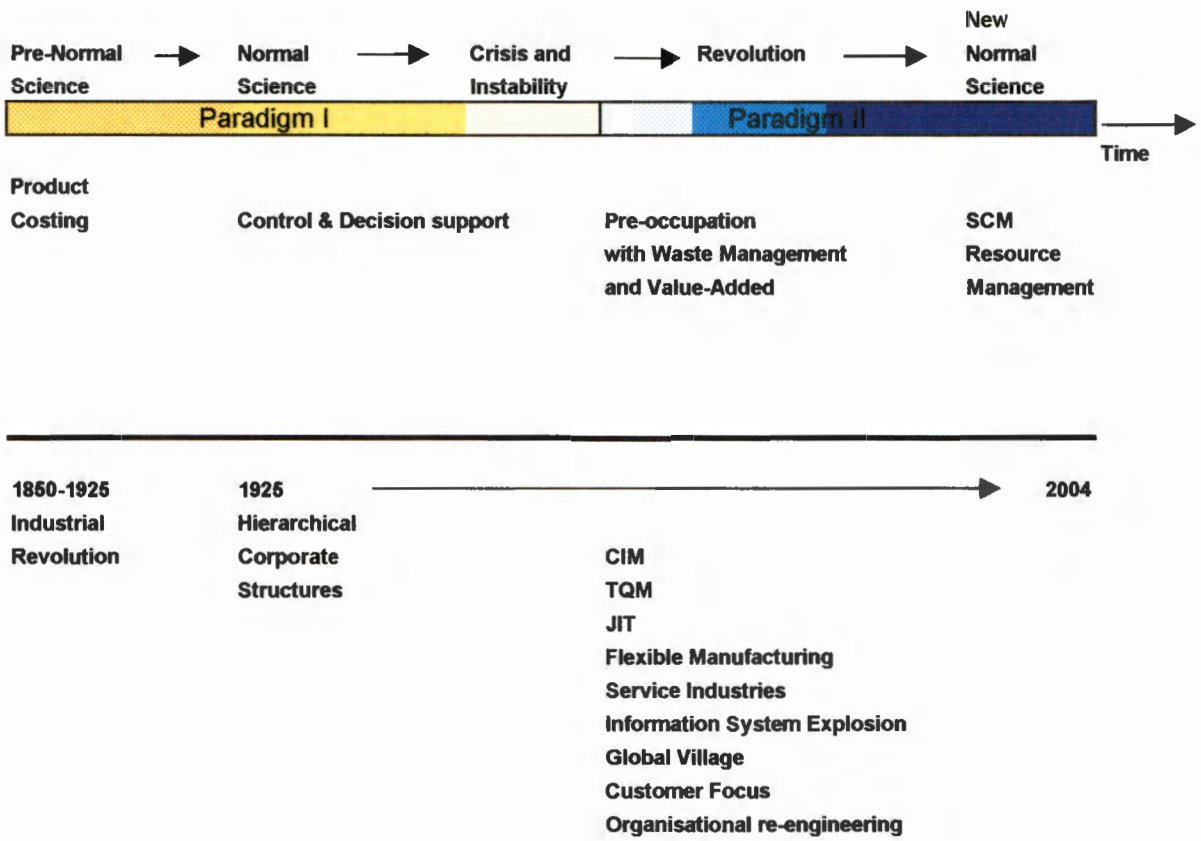
In this concluding chapter, the Kuhnian view will be briefly explained and it will be argued that the changes that have taken place in management accounting represent a paradigm shift of a Kuhnian nature. Thereafter, the findings of this research, as it relates to the research question, will be briefly discussed. Reference will be made to the findings regarding the effect of nature, size and culture of the organisation on the research question. Links to the theoretical framework that was expounded, will also be explored. This will be followed by a discussion of the implications of the findings of this research for practitioners, academia and the professional institutes of accounting. Also included are the implications for the practice of management accounting in developing nations. Finally, the chapter will be concluded with suggestions of areas for further research.

7.2 The Kuhnian view of paradigm shifts

According to the Kuhn, science progresses by a series of revolutions. The progression is through a phase of pre-science, to normal science, and then a crisis occurs which results in revolutionary changes and finally a new normal science is born (Mathews & Perera, 1991:46).

Diagram 30 is adapted from a diagram in Mathews and Perera.

Diagram 30: Kuhnian view of paradigm shifts



(Mathews & Perera, 1991: 46) (Adapted)

The yellow section in the diagram represents Stages One and Two of the evolution of management accounting in terms of the conceptual framework of IFAC. The transitional phase of crisis and instability represents the period of change within the business environment,

crisis and instability represents the period of change within the business environment, characterised by issues such as Computer Integrated Manufacturing (CIM), Total Quality Management (TQM), JIT, flexible manufacturing, customer focus, the concept of the global village, and most importantly, organisational re-engineering. It was during this period of change that the gradual irrelevancy of existing management accounting theory and practice became apparent. The accusation of relevance lost by Johnson and Kaplan was very necessary and should be considered as an important watershed period. It resulted in considerable introspection and finally culminated in a refocus and redefinition of the theory and practice of management accounting. This theory is now the new normal science, that of resource management and strategic cost management, as represented in Stages Three and Four (blue section on Diagram 30, page 148).

It is the view of this researcher that we have indeed witnessed a paradigm shift of a Kuhnian nature. The literature review strongly supported the need for change and also testified to change that had already taken place. Examples were activity-based-costing, budgeting and management, the inclusion of non-financial indicators for performance measurement, value-chain focus and a gradual move away from a purely functional approach to a team-based facilitative focus. Advancements in the manufacturing environment, the growth of service industries, the enabling nature of vastly changed information systems, and the advent of the global village, have all worked towards refocusing the attention back on the market and hence on the customer.

In Chapter Two, Johnson and Kaplan (1987:93) theorised that the reason why large organisations such as Du Pont and General Motors evolved, was because of the poor quality of the markets and market information in the United States between the late Eighteenth and early Twentieth centuries (paragraph 2.5, page 24). They argued that multi-divisional companies became dominant because the transaction costs of the organisational bureaucracy were less than the costs of using the market. What we are now seeing is perhaps the transaction cost theory at work again, but this time in the opposite direction. The costs of maintaining these, huge hierarchical organisations no longer provides the same efficiencies and cost reductions. Unbundling and refocusing on core business has been the trend over the past decade.

7.3 Statement of Research Findings

This research initially set out to establish the stage of development of the practice of management accounting in large private and state-owned organisations in the Eastern Cape. Ancillary objectives included the study of the effect of the nature, size and culture of the organisation on the research question as well as issues such as the existence of financial reporting bias and the extent of the implementation of ABC. These findings will be briefly outlined.

The practice of management accounting in the Eastern Cape is clearly still in a transitional stage as reflected by the results obtained. There is a significant leaning towards Stages Three and Four of development. Organisational size does appear to have an effect on the stage of development as larger organisations fared better than the smaller ones. Seven out of twenty-five organisations had reached Stages Three and Four. All, except for one, employed more than one thousand, five hundred employees. The smallest organisation referred to here, employed nine-hundred persons. The results of this company are somewhat suspect as explained in Chapter six (paragraph 6.7.1, page 130).

The findings with regard to the effect of the nature of the organisation on the research question were inconclusive, as there was no significant difference between manufacturing and service organisations. However, the state-operated organisations were clearly still functioning in Stages One and Two, which to some extent was expected. The fact that the head offices of these organisations were not situated in the Eastern Cape is relevant, and should be factored into any interpretation that might be made. However, it is precisely the hierarchical nature of these organisations that needs to be revisited by local and central planners.

Nine of the organisations researched had foreign holding companies, of which five were from the German/Dutch sphere of influence. The countries of origin of the other four holding companies, were the United States of America (two), the United Kingdom (one) and Italy (one). These countries were expected to have an effect on the accounting policies of their subsidiaries, and hence their inclusion in the research question. South Africa was represented by thirteen private and three state-owned organisations. No conclusive findings could be drawn with regard to the foreign companies, as only the German/Dutch sphere of influence was reasonably well

represented. Nonetheless, the above-average performance of the German/Dutch companies was an interesting finding. The South African-based private companies scored lowest when the variability of results were taken into consideration (Diagram 23, page 129). This result is significant as it shows clearly that South Africa is still lagging behind its foreign counterparts.

There is evidence of financial reporting bias. Of particular concern is the issue of separate stock schedules. Only 30% of companies were making some kind of a differentiation between the valuation of stock for financial reporting purposes and the valuation for management decision-making purposes. With the customer oriented approach that is the hallmark of modern progressive, competitive organisations, one would have expected some form of product cost differentiation per customer to be reported on.

As far as the implementation of ABC is concerned, only nine out of twenty-four organisations were either extensively or significantly using the technique. These results compare well with those obtained for the United Kingdom. In a study of one hundred and seventy nine companies in the United Kingdom in 1992, only ten percent had implemented ABC, and eighteen percent were piloting the technique (Bromwich & Bhimani: 1994: 231).

7.4 Links to the theoretical framework

In a number of cases there were clear links between the empirical findings and the theoretical framework that was expounded. A few of these will be mentioned.

The institutional 'embedded' nature of the practice of management accounting (paragraph 2.7, pages 28-31) was evident in a number of organisations and was probably a contributing factor why some were still operating in Stages One and Two of development. An example was the power and influence of the managing director that was clearly evident in two private organisations. This influence made any change initiative extremely difficult to implement. Other examples were entrenched institutions and routines that precluded any form of change. This was particularly the case in the state-owned organisations.

The findings of the research regarding culture (paragraph 3.2, pages 34-44) are also significant. Cultural relativism is not a popular subject (Hofstede, 1984:254). He argues that fundamental

beliefs are shown to vary widely from one culture to the next, that they throw doubt on many established beliefs, and that it is easier to avoid the idea of the culture concept than to face up to it. Even the conclusions drawn in this research, with regards to the paradigm shift within management accounting, will probably not be supported by practitioners in continental Europe. They may argue that that is the way that management accounting has always been practised in their organisations. The issue of cultural differences has been demonstrated to affect accounting practices (paragraph 3.2.4, page 38). The superior performance of the German/Dutch organisations can possibly be ascribed to cultural differences. The issue of uniformity (paragraph 3.2.4, page 38) was particularly relevant. In some organisations the controller determined the nature and form of the information to be supplied for reporting purposes. In others this was determined by consultation and negotiation with the various users.

The changing nature of the practice of management accounting was the central theme of this study. The extant literature abounded with calls for change or was descriptive of change that had already taken place or that was taking place. These changes, or lack there-of, were also reflected in the empirical component of this study. Some respondents described the changes as an empowerment while others referred to the team approach as opposed to the traditional functional approach. Yet others spoke of the management accounting function as now being central in the production processes of the organisation. The issue of cost management as against cost measurement was particularly evident.

Not all organisations were embracing this culture of change. Notable, in this respect, were the state-operated organisations, where management accounting was still relegated to a 'back office' act and consisted, in the main, of expense recording and an analysis of variances. Of particular note was the findings with regard to one of the largest manufacturing organisations included in the study. This organisation still employed a single cost driver for the allocation of fixed overheads and reporting was done periodically based on historic data only. The management accountant in this organisation viewed the function to be one of purely reporting to senior management for decision making and control purposes. Communication at operational level was limited.

7.5 Implications of this study

The implications of this study will be discussed with reference to practitioners, academia and the professional institutes. The circumstances surrounding developing nations, and the implications that this has for management accounting, will also be referred to.

7.5.1 Implications for practitioners

The argument advocated above of a Kuhnian paradigm shift and a resultant new science to which all practitioners and theorists should subscribe, contains a warning for those practitioners (and perhaps theorists) who still cling to the old paradigm. The survival of organisations in the extremely competitive world of the Twenty First-Century, partially depends on accurate and timeous information, and on signals being received from those who are entrusted with this task. This role has traditionally been that of the management accountant. If this information is not forthcoming, it will be obtained elsewhere, as was the case in a large manufacturing concern (paragraph 5.9.3, page 108) where business analysts were appointed to advise on strategy.

What then is the nature and content of this new informational requirement, and what are the implications for practitioners? This researcher supports the views of the Canadian authors Armitage et al. (1994:31-37) as discussed in Chapter Four (paragraph 4.3, pages 75-79). Management accountants should note the following:

- That the central focus of the modern organisation, be it private or public, is the customer. Management accounting information must be supportive of this focus. This involves a focus on value-chain accounting, continuous improvement and process re-engineering.

- That performance measurement must be based on value chain metrics where issues of cost, quality, time and service are measured and reported on. More importantly, these measurements must have an external and an internal focus, taking financial and non-financial factors into consideration.

- That techniques such as modelling that incorporates both the historic and futuristic domain, should be regularly applied.
- That investment in information systems, coupled with a strong focus on clear guidelines for performance of each operational unit as reflected in the 'toolbox' idea, and a precise focus on costs, are the differentiating factors between companies that are in the Third and Fourth Stage of development and those that are not. Management accountants in South African-based companies can learn from this. An acceptance of the status quo could lead to redundancy, particularly when issues of cost/benefit are taken into consideration, which is a hallmark of the Fourth Stage of development of management accounting.

- That it is particularly the smaller organisations that need to review their management accounting practices. The results of the research showed clearly that they fared worst in terms of the research question. All of these organisations employed a management accountant. The qualifications of these employees varied from technikon diplomas, to university commerce degrees, and in some cases, professionally qualified accountants were employed. These persons are in a unique position to bring about change. Typically, they report directly to the Board of Directors, who very often are also the majority shareholders. By providing the kind of information referred to above, a demand will be created for the new information and gradually the changed reporting content will become the norm, as the strategic value thereof is recognised. **The management accountant will have to 'earn' the position of being part of the strategic management team as far as resource management is concerned**. It should be remembered that the perception of other participants within these organisations of the role of the management accountant may not have changed at all. This would be an interesting area for further research.

7.5.2 Implications for academia

As the research undertaken did not include an analysis of the curricula and syllabi of the various educational institutions in South Africa, it is not possible to make an informed comment as to the focus of conventional wisdom regarding the practise and theory of management accounting. There are, however, three areas, in the view of this researcher, that require further attention. These are:

- A greater focus on strategic cost management. Integrated information systems are central to strategic cost management. Perhaps the time has come for the accountancy departments of universities and technikons, to invest resources in software packages such as SAP, and in training on these packages, that will enable the teaching of strategic cost management to be done in a more practical way. It is in this area that management accounting academics face an interesting future (Cooper, 1996:32). He states that as cost management becomes more important, an increasing number of students will want to learn about management accounting. According to Cooper, management accounting represents a small sub-set of what students of cost accounting should be taught. He warns that if the management accounting academics do not step forward to fill the gap, somebody else will, relegating the management accounting academics to a support, as opposed to a dominant role, in the teaching of cost management (paragraph 1.1: page 5).

  Cooper (1996: 35) also contends that the teaching of cost management will require a generalised knowledge of strategy, marketing, production, product design engineering and issues surrounding change management and system implementation. He argues strongly that a back-ground in accounting, especially financial accounting, will be of little use in preparing for such courses. What is required is an interdisciplinary curriculum with its foundation rooted in management information systems. This view supports the earlier recommendation regarding SAP.

- A greater involvement in management accounting research. The focus of this research should include studies of the problems associated with the implementing of new cost management techniques. Problems regarding the implementation of ABC were discussed in paragraph 6.8, pages 135-138. Interesting new techniques such as the 'cost of complexity', were referred to. What is desperately needed is case study research, preferably done in partnership with practitioners. Kaplan (1989: 129) speaks of connecting the 'research-teaching-practice triangle'. He states that no group has monopoly on any one of these functions. One of the interesting experiences of this research was the positive attitude of the practitioners towards the survey that was made. In more than one instance the respondents alluded to the possibility of 'working together' on areas of common concern.

- The incorporation of a case study approach in the teaching of management accounting. This researcher does not concur with views expressed by some researchers (paragraph 1.1, page 5) that the practical value of techniques such as NPV calculations, or quantitative decision models based on Neo-classical theory, have limited acceptance in practice. On the contrary, the lack of acceptance is a further indictment of the practitioners' acceptance of the status quo. What is necessary is to apply these techniques and present them in a meaningful and understandable way in the various management accounting reports. Academia can encourage this by making more use of the case study approach.

7.5.3 Implications for the professional institutions

The various professional accountancy institutions operating in South Africa were discussed in Chapter One (paragraph 1.4, page 10). Of these institutions, the most important, based purely on numbers, are the SAICA with approximately nineteen thousand, one hundred members, and the CFA, with approximately five thousand, eight hundred members (paragraph 1.4, page 10). The CFA is an Institute for Commercial and Financial Accountants. Its main focus is financial accounting, tax and law. Management accounting is only required at a first year university or technikon level. It is the view of this researcher that it is the SAICA that is in a powerful position to do the following:

- To be a facilitator of change with regards to the practice of management accounting in South Africa. The new tier structure operative within the institute, and the widening of the final exit qualification to include an option for specialisation in financial management, is a step in the right direction. However, the subservience of this exit route to that of the normal audit route, perhaps needs to be reconsidered.

- To review the status of financial accounting within the syllabus of the financial management training route and to focus in greater depth on issues of strategic cost management, information systems development and implementation, and production management. Cooper (1996: 32) argues that most of financial accounting should be eliminated from the syllabus, as very little financial accounting knowledge is required for the practice of management accounting.

- To consider widening the student base. Cooper (1996:32) contends that the professional institutes should find ways to change the type of individuals that they certify. Instead of only having students with accounting backgrounds, future applicants should be drawn from diverse fields such as medicine, engineering, product design and marketing. This is an interesting thought and needs to be further investigated by the professional institutes.

7.5.4 Implications for developing nations

The accounting requirements of developing nations were discussed in Chapter Three (paragraph 3.4, page 57). The various governmental and non-governmental organisations operative in South Africa, should consider the implementation of the following:

- Uniform accounting systems, based on regulatory frameworks. The 'tableau de bord' concept, as implemented in France, or the 'toolbox' method of performance measurement and control, as implemented in certain German companies (paragraph 5.9.1, page 106) is appealing. If an instrument could be developed that would enable small and medium-sized organisations to report according to a predetermined set of criteria in a user-friendly manner, it should work towards reducing business failure. Such a tool could also be used as a measurement instrument to establish acceptance criteria for the provision of funding.

- Further investment in on-the-job education and training in basic management accounting principles and practice. The kind of measurement technologies that are needed, and that should be applied in state-operated organisations are those of cost/benefit. Millions of tax payers money are managed by these organisations. Measurement tools need to be in place to ensure that this money is spent in the most cost efficient way.

7.6 Recommendations for further Research

The issue of further questions being raised was an exciting part of the research undertaken. This section lists and briefly discusses these areas.

- This study was limited to the Eastern Cape. It would be interesting to apply the study to all of the provinces in South Africa to establish if significant differences exist and to find reasons for the differences, if any.
- The empirical part of the research relating to cultural differences should be further investigated. It would be interesting to do a comparative study of organisational performance with the type of management accounting procedures employed, based on these differences.
- This research focused on the management accounting function from the perspective of the management accountant only. Others stakeholders within the organisation may hold different views and this needs to be investigated if a holistic perspective is to be obtained.
- Of particular concern are the state-operated organisations. Research is needed to establish the cost/benefit ratio and how this could be improved by the implementation of strategic cost strategies. Uliana (1994:86) correctly points to poor productivity as being one of the major impediments to economic growth inSouth Africa. This impediment is no more evident than in the state-operated organisations. Research could assist in focusing attention on areas of unnecessary waste and in establishing instruments for cost-efficiency measurement.
- The relatively poor performance of ABC to be investigated. It is acknowledged that any generalisation based on this research, would be rather questionable. What is necessary is further in-depth case studies. The cost of complexity method for the allocation of fixed factory overheads, as being developed by one of the companies interviewed, is very interesting and certainly will be followed up.
- The differences between management accounting in service and manufacturing organisations needs to be studied. Traditionally, management accounting has been associated mainly with manufacturing. Illustrative examples and case studies in management accounting textbooks are based almost exclusively on manufacturing organisations. The growth in service industries has been referred to in this study (paragraph 1.2, page 6). The informational requirements of these organisations could differ substantively and needs to be explored.
- Lastly, questions need to be asked about the apparent dominance of Financial Accounting. In an article entitled ***The role of management accounting in the development of a manufacturing strategy***, Fry and Steele (1995:21-32) illustrate by means of a survey, the inconsistency between management accounting systems and

manufacturing strategy. In particular, they demonstrate how standard costing bears no relation to the production environment and is used primarily to value stock for financial reporting purposes. They state that linking management accounting to the financial accounting system strongly encourages operations managers to emphasis plant financial performance rather than other, more meaningful, performance criteria. Further research is needed to establish the reasons for this apparent dominance and also to ascertain the role of academia and the professional institutes in bringing about this change.

7.7 Final concluding remarks

Poor management accounting systems by themselves will not lead to organisational failure, nor will excellent management accounting systems ensure success (Johnson & Kaplan, 1987:261). They can, however contribute to the decline or survival of organisations. Excellent systems are needed to guide capital investments, provide accurate product costing and to measure performance on all levels. The advent of the information era has placed management accountants in the unprecedented position, not only of being able to provide this information, but also being ideally placed to function as facilitators of change. If these objectives are to be achieved, then the time has come for systems to be developed and implemented that are not based on the requirements of external financial reporting. Rather, the needs and the structure of each organisation should be the foundation upon which these systems rest. Management accountants should work closely with process engineers, operations managers and marketing strategists to achieve this objective.

Finally, the issue of uniform reporting systems, such as the 'tableau de bord' should be considered for the developing sector of the economy in South Africa. Economic growth is the greatest need facing this country. The developing sector is in the most powerful position to bring about this growth. The informational requirements of this sector should assume centre stage for theorists and practitioners alike and, if systems could be developed that would be supportive of economic growth in this sector, then urgent attention needs to be applied to its development.

ANNEXURE 1 QUESTIONNAIRE (PILOT)

MANAGEMENT ACCOUNTING: STRUCTURED INTERVIEW

COMPANY DETAILS

Nature or Business	
Type of Company	Public ☐ Private ☐ CC ☐
Country of Holding Company (If applicable)	
Number of Employees	
Employment Title	
Qualifications	

MANAGEMENT ACCOUNTING TECHNOLOGIES

Please indicate the extent to which the following functions, tasks, skills or methods form part of the management accounting task in your organisation:

For each function, task or method, please use the five point scale provided, as follows:

1 = Extensive part
2 = Significant part
3 = Limited part
4 = No part
5 = Unfamiliar task, function or method

		RANK 1	2	3	4	5
1	**Method of overhead allocation**					
1.1	Standard costing - single cost driver	☐	☐	☐	☐	☐
1.2	Standard costing - % of raw material costs	☐	☐	☐	☐	☐
1.3	Activity based costing	☐	☐	☐	☐	☐
1.4	Percentage of prime cost	☐	☐	☐	☐	☐
1.5	Other method?	☐	☐	☐	☐	☐
2	**Standard costs and variance analysis**					
2.1	Performed monthly/weekly, based on historic data	☐	☐	☐	☐	☐
2.2	Daily analysis, based on real time information	☐	☐	☐	☐	☐
2.3	Establishment and maintenance of a system to be used by unit managers	☐	☐	☐	☐	☐
2.4	Other method?	☐	☐	☐	☐	☐
3	**Budgetary Control**					
3.1	Annual incremental budgeting	☐	☐	☐	☐	☐
3.2	Zero-based budgeting	☐	☐	☐	☐	☐
3.3	Co-ordinating of participative budgeting	☐	☐	☐	☐	☐
3.4	Activity Based Budgeting	☐	☐	☐	☐	☐
3.5	Other method?	☐	☐	☐	☐	☐
4	**Product Costing**					
4.1	Direct and indirect costs only	☐	☐	☐	☐	☐
4.2	Inclusive of product development costs	☐	☐	☐	☐	☐
4.3	Inclusive of decommissioning costs	☐	☐	☐	☐	☐
4.4	Inclusive of waste disposal costs	☐	☐	☐	☐	☐

5 Performance Measurement (All segments and managers in organisation)

5.1	Based on financial indicators only	☐	☐	☐	☐	☐
5.2	Based on financial and non financial indicators	☐	☐	☐	☐	☐
5.3	Based on short-term factors only	☐	☐	☐	☐	☐
5.4	Based on short-term and long-term factors	☐	☐	☐	☐	☐
5.5	Other method	☐	☐	☐	☐	☐

6 Customer Analysis

6.1	Calculate profitability analysis of various customers	☐	☐	☐	☐	☐
6.2	Promote and assist in developing partnership/ contractual arrangements with various customers	☐	☐	☐	☐	☐
6.3	Analyse historic sales trends on various customers to assist marketing department	☐	☐	☐	☐	☐
6.4	Provide development department with historic cost data on various products for improvement and enhancement purposes	☐	☐	☐	☐	☐
6.5	Other analysis?	☐	☐	☐	☐	☐

7 Raw Material and Services Supplier of Analysis

7.1	Maintain a JIT stock management system	☐	☐	☐	☐	☐
7.2	Promote and assist in developing partnership/ contractual arrangements with various suppliers	☐	☐	☐	☐	☐
7.3	Perform comparative analysis of internal service costs and costs of outsourcing	☐	☐	☐	☐	☐
7.4	Provide feedback to purchasing department regarding cost/quality criteria of existing suppliers	☐	☐	☐	☐	☐
7.5	Other analysis?	☐	☐	☐	☐	☐

8 Quality Management

8.1 Defective products identified at the end of the production process ☐ ☐ ☐ ☐ ☐

8.2 All raw material subjected to quality checking procedures, prior to the start of production ☐ ☐ ☐ ☐ ☐

8.3 Quality measurement procedures built into each step of the production process ☐ ☐ ☐ ☐ ☐

8.4 Maintain a quality assurance program of zero defects ☐ ☐ ☐ ☐ ☐

9 Measurement of Outcomes of Management Accounting Utility

9.1 Regularly assess the outcomes of the management accounting process in terms of the value that it adds to the organisation, judged from the perspectives of the users ☐ ☐ ☐ ☐ ☐

9.2 Establish staged performance objectives for the management accounting tasks to be performed, negotiated and agreed to within the organisation. ☐ ☐ ☐ ☐ ☐

9.3 Perform a cost benefit analysis of the work processes and outcomes of the management accounting function ☐ ☐ ☐ ☐ ☐

9.4 Other measurement of outcome? ☐ ☐ ☐ ☐ ☐

10 Creating Opportunities

10.1 To be proactive in seeking and finding opportunities for value creation **within your organisation** ☐ ☐ ☐ ☐ ☐

10.2 To be proactive in seeking and finding opportunities for value creation **within and outside your organisation** ☐ ☐ ☐ ☐ ☐

Please indicate the extent to which the following policies are applicable to the management accounting function:

11 Continuous Improvement (As it relates to the management accounting function)

11.1	Establishing a policy of continuous improvement	☐	☐	☐	☐	☐
11.2	Training employees in the implementation of a policy of continuous improvement	☐	☐	☐	☐	☐
11.3	Establishing a system of reward for continuous improvement	☐	☐	☐	☐	☐
11.4	Evaluating the cost benefit ratio of an existing policy of continuous improvement	☐	☐	☐	☐	☐

12 Bench Marking (As it relates to the management accounting function)

12.1	Establish standards of best practice	☐	☐	☐	☐	☐
12.2	Establish standards of best practice based on internally generated information	☐	☐	☐	☐	☐
12.3	Establish standards of best practice based on internally and externally generated information	☐	☐	☐	☐	☐
12.4	Continually review standards of best practice	☐	☐	☐	☐	☐

MANAGEMENT PROCESS PARTICIPATION

Indicate the extent in which you, as the management accountant, are involved in <u>resource management</u> at <u>organisational</u> level in the following areas:

13 Organisational direction setting

13.1	Strategy formulation and implementation	☐	☐	☐	☐	☐
13.2	Project appraisal and implementation	☐	☐	☐	☐	☐
13.3	Business planning & decision support	☐	☐	☐	☐	☐
13.4	Resource deployment	☐	☐	☐	☐	☐

14 Organisational structuring

14.1 Designing organisational processes and systems to support strategies

14.2 Aligning capabilities with processes and systems

14.3 Decision making about the outsourcing or insourcing of processes, capabilities and systems

14.4 Allocation of resources to processes and systems

15 Organisational commitment of all participants

15.1 Building an understanding of the key organisational success factors and capabilities

15.2 Building motivation and trust across all organisational participants

15.3 Establishing and implementing mechanisms for the sharing of gains and success

15.4 Providing feedback on individual, team and organisational development

16 Organisational change

16.1 Establishing change targets and goals

16.2 Re-engineering or continuous improvement initiatives

16.3 Providing information or feedback related to change initiatives

16.4 Monitoring the outcomes of change initiatives

17 Organisational control

17.1 Profiling the risk exposures associated with organisational strategies and business processes

17.2 Establishing and managing control parameters related to risk exposures

17.3 Establishing performance criteria and measures related to the organisation's strategic success

17.4 Establishing performance criteria and measures related to the organisations success from a financial and non-financial perspective

SKILLS REQUIRED

Indicate the extent to which the following skills are required by yourself, as the management accountant, in order to successfully fulfil your task:

18	**Communication & Interpersonal Skills**					
	18.1 Verbal communication at corporate level	☐	☐	☐	☐	☐
	18.2 Verbal communication at operational level	☐	☐	☐	☐	☐
	18.3 Written communication at corporate level	☐	☐	☐	☐	☐
	18.4 Written communication at operational level	☐	☐	☐	☐	☐
	18.5 Presentation skills using electronic media	☐	☐	☐	☐	☐
19	**General Management Skills**					
	19.1 Objective setting	☐	☐	☐	☐	☐
	19.2 Planning, organising, leading	☐	☐	☐	☐	☐
	19.3 Managing change and conflict	☐	☐	☐	☐	☐
	19.4 Group facilitation	☐	☐	☐	☐	☐
	19.5 Evaluate existing management style and recommend changes	☐	☐	☐	☐	☐
20	**Human Resource Management Skills**					
	20.1 Human resource planning	☐	☐	☐	☐	☐
	20.2 Human resource training	☐	☐	☐	☐	☐
	20.1 Human resource compensation	☐	☐	☐	☐	☐
	20.2 Human resource motivation	☐	☐	☐	☐	☐
21	**Management Information Systems**					
	21.1 Design of information requirements	☐	☐	☐	☐	☐
	21.2 Analysis and interpretation of real time information	☐	☐	☐	☐	☐
	21.3 Incorporation of non-financial factors into management information systems	☐	☐	☐	☐	☐
	21.4 Use of modeling, simulation and forecasting techniques	☐	☐	☐	☐	☐

FINANCIAL REPORTING BIAS

Indicate the extent in which the following activities are designed to suit the requirements of external financial reporting:

22.1 Preparation of a single stock valuation schedule suitable for financial and management reporting purposes ☐ ☐ ☐ ☐ ☐

22.2 Prepare equal reporting periods for financial and management accounting purposes ☐ ☐ ☐ ☐ ☐

22.3 Performance measurement of various products and business units based on financial reporting periods ☐ ☐ ☐ ☐ ☐

22.4 Fixed asset depreciation schedules prepared suitable for financial reporting purposes ☐ ☐ ☐ ☐ ☐

MANAGEMENT ACCOUNTING FUNCTION

How is management accounting, as a field of activity or process, positioned in your organisation?

For each statement, please use the five point scale provided, as follows:

1 = Strongly agree
2 = Agree
3 = Hold no particular view
4 = Disagree
5 = Strongly disagree

23 Nature of Management Accounting Task

23.1 It is a purely a technical activity, necessary for the pursuit of organisational objectives ☐ ☐ ☐ ☐ ☐

23.2 It is a management activity, limited to a staffing role, to provide support to line managers through the provision of information for planning and control purposes ☐ ☐ ☐ ☐ ☐

23.3 It is an integral part of the management process that focuses on the use of resources to create value. ☐ ☐ ☐ ☐ ☐

23.4 Other role? ☐ ☐ ☐ ☐ ☐

24 Team Orientation

24.1 The management accounting process is a distinct process that stands apart form other managerial or operative processes and merely reports to them in a functional capacity	☐ ☐ ☐ ☐ ☐
24.2 The management accounting process is deployed within and conducted through the various types of teams established to undertake the work of the organisation.	☐ ☐ ☐ ☐ ☐
24.3 Other orientation?	☐ ☐ ☐ ☐ ☐

GENERAL COMMENTS

Briefly describe the management accounting function as performed in your organisation:

_____

_____

_____

_____

What, in your opinion, should the management function consist of, for your organisation?

_____

_____

_____

Why do you believe are the reasons for the difference? (If applicable)

_____

_____

Any other comment that you may wish to make:

ANNEXURE 2 QUESTIONNIARE (Manufacturing)

MANAGEMENT ACCOUNTING: STRUCTURED INTERVIEW

COMPANY DETAILS	
Nature or Business	
Type of Company	Public ☐ Private ☐ CC ☐
Country of Holding Company (If applicable)	
Number of Employees	
Employment Title	
Qualifications	

MANAGEMENT ACCOUNTING TECHNOLOGIES

Please indicate the extent to which the following functions, tasks, skills or methods form part of the management accounting task in your orgainisation:

For each function, task or method, please use the five point scale provided, as follows:

1 = Extensive part
2 = Significant part
3 = Limited part
4 = No part
5 = Not applicable

		RANK 1	2	3	4	5
1	**Method of overhead allocation**					
1.1	Standard costing - single cost driver	☐	☐	☐	☐	☐
1.2	Standard costing - % of raw material costs	☐	☐	☐	☐	☐
1.3	Activity based costing	☐	☐	☐	☐	☐
1.4	Percentage of prime cost	☐	☐	☐	☐	☐
1.5	Other method?	☐	☐	☐	☐	☐
2	**Standard costs and variance analysis**					
2.1	Performed monthly/weekly, based on historic data	☐	☐	☐	☐	☐
2.2	Daily analysis, based on real time information	☐	☐	☐	☐	☐
2.3	Establishment and maintenance of a system to be used by unit managers	☐	☐	☐	☐	☐
2.4	Other method?	☐	☐	☐	☐	☐
3	**Budgetary Control**					
3.1	Annual incremental budgeting	☐	☐	☐	☐	☐
3.2	Zero-based budgeting	☐	☐	☐	☐	☐
3.3	Co-ordinating of participative budgeting	☐	☐	☐	☐	☐
3.4	Activity Based Budgeting	☐	☐	☐	☐	☐
3.5	Other method?	☐	☐	☐	☐	☐
4	**Product Costing**					
4.1	Direct and indirect costs only	☐	☐	☐	☐	☐
4.2	Inclusive of product development costs	☐	☐	☐	☐	☐
4.3	Inclusive of product decommissioning costs	☐	☐	☐	☐	☐
4.4	Inclusive of waste disposal costs	☐	☐	☐	☐	☐

5 Performance Measurement (All segments and managers in organisation)

5.1 Based on financial indicators only ☐☐☐☐☐

5.2 Based on financial and non financial indicators ☐☐☐☐☐

5.3 Based on short-term factors only ☐☐☐☐☐

5.4 Based on short-term and long-term factors ☐☐☐☐☐

5.5 Other method ☐☐☐☐☐

6 Customer Analysis

6.1 Calculate profitability analysis of various customers ☐☐☐☐☐

6.2 Promote and assist in developing partnership/ contractual arrangements with various customers ☐☐☐☐☐

6.3 Analyse historic sales trends on various customers to assist marketing department ☐☐☐☐☐

6.4 Provide development department with historic cost data on various products for improvement and enhancement purposes ☐☐☐☐☐

6.5 Other analysis? ☐☐☐☐☐

7 Raw Material and Services Supplier of Analysis

7.1 Maintain a JIT stock management system ☐☐☐☐☐

7.2 Promote and assist in developing partnership/ contractual arrangements with various suppliers ☐☐☐☐☐

7.3 Perform comparative analysis of internal service costs and costs of outsourcing ☐☐☐☐☐

7.4 Provide feedback to purchasing department regarding cost/quality criteria of existing suppliers ☐☐☐☐☐

7.5 Other analysis? ☐☐☐☐☐

8 Quality Management

8.1 Defective products identified at the end of the production process

8.2 All raw material subjected to quality checking procedures, prior to the start of production

8.3 Quality measurement procedures built into each step of the production process

8.4 Maintain a quality assurance program of zero defects

9 Measurement of Outcomes of Management Accounting Utility

9.1 Regularly assess the outcomes of the management accounting process in terms of the value that it adds to the organisation, judged from the perspectives of the users

9.2 Establish staged performance objectives for the management accounting tasks to be performed, negotiated and agreed to within the organisation.

9.3 Perform a cost benefit analysis of the work processes and outcomes of the management accounting function

9.4 Other measurement of outcome?

10 Creating Opportunities

10.1 To be proactive in seeking and finding opportunities for value creation **within your organisation**

10.2 To be proactive in seeking and finding opportunities for value creation **within and outside your organisation**

Please indicate the extent to which the following policies are applicable to the management accounting function:

11 Continuous Improvement (As it relates to the management accounting function)

11.1	Establishing a policy of continuous improvement	☐	☐	☐	☐	☐
11.2	Training employees in the implementation of a policy of continuous improvement	☐	☐	☐	☐	☐
11.3	Establishing a system of reward for continuous improvement	☐	☐	☐	☐	☐
11.4	Evaluating the cost benefit ratio of an existing policy of continuous improvement	☐	☐	☐	☐	☐

12 Bench Marking (As it relates to the management accounting function)

12.1	Establish standards of best practice	☐	☐	☐	☐	☐
12.2	Establish standards of best practice based on internally generated information	☐	☐	☐	☐	☐
12.3	Establish standards of best practice based on internally and externally generated information	☐	☐	☐	☐	☐
12.4	Continually review standards of best practice	☐	☐	☐	☐	☐

MANAGEMENT PROCESS PARTICIPATION

Indicate the extent in which you, as the management accountant, are involved in <u>resource management</u> at <u>organisational</u> level in the following areas:

13 Organisational direction setting

13.1	Strategy formulation and implementation	☐	☐	☐	☐	☐
13.2	Project appraisal and implementation	☐	☐	☐	☐	☐
13.3	Business planning & decision support	☐	☐	☐	☐	☐
13.4	Resource deployment	☐	☐	☐	☐	☐

14 Organisational structuring

14.1 Designing organisational processes and systems to support strategies

14.2 Aligning capabilities with processes and systems

14.3 Decision making about the outsourcing or insourcing of processes, capabilities and systems

14.4 Allocation of resources to processes and systems

15 Organisational commitment of all participants

15.1 Building an understanding of the key organisational success factors and capabilities

15.2 Building motivation and trust across all organisational participants

15.3 Establishing and implementing mechanisms for the sharing of gains and success

15.4 Providing feedback on individual, team and organisational development

16 Organisational change

16.1 Establishing change targets and goals

16.2 Re-engineering or continuous improvement initiatives

16.3 Providing information or feedback related to change initiatives

16.4 Monitoring the outcomes of change initiatives

17 Organisational control

17.1 Profiling the risk exposures associated with organisational strategies and business processes

17.2 Establishing and managing control parameters related to risk exposures

17.3 Establishing performance criteria and measures related to the organisation's strategic success

17.4 Establishing performance criteria and measures related to the organisations success from a financial and non-financial perspective

SKILLS REQUIRED

Indicate the extent to which the following skills are required by yourself, as the management accountant, in order to successfully fulfil your task:

18 Communication & Interpersonal Skills

18.1 Verbal communication at corporate level ☐☐☐☐☐

18.2 Verbal communication at operational level ☐☐☐☐☐

18.3 Written communication at corporate level ☐☐☐☐☐

18.4 Written communication at operational level ☐☐☐☐☐

18.5 Presentation skills using electronic media ☐☐☐☐☐

19 General Management Skills

19.1 Objective setting ☐☐☐☐☐

19.2 Planning, organising, leading ☐☐☐☐☐

19.3 Managing change and conflict ☐☐☐☐☐

19.4 Group facilitation ☐☐☐☐☐

19.5 Evaluate existing management style and recommend changes ☐☐☐☐☐

20 Human Resource Management Skills

20.1 Human resource planning ☐☐☐☐☐

20.1 Human resource compensation ☐☐☐☐☐

21 Management Information Systems

21.1 Design of information requirements ☐☐☐☐☐

21.2 Analysis and interpretation of real time information ☐☐☐☐☐

21.3 Incorporation of non-financial factors into management information systems ☐☐☐☐☐

21.4 Use of modeling, simulation and forecasting techniques ☐☐☐☐☐

FINANCIAL REPORTING BIAS

Indicate the extent in which the following activities are designed to suit the requirements of external financial reporting:

22.1 Preparation of a single stock valuation schedule suitable for financial and management reporting purposes ☐ ☐ ☐ ☐ ☐

22.2 Prepare equal reporting periods for financial and management accounting purposes ☐ ☐ ☐ ☐ ☐

22.3 Performance measurement of various products and business units based on financial reporting periods ☐ ☐ ☐ ☐ ☐

22.4 Fixed asset depreciation schedules prepared suitable for financial reporting purposes ☐ ☐ ☐ ☐ ☐

MANAGEMENT ACCOUNTING FUNCTION

How is management accounting, as a field of activity or process, positioned in your organisation?

For each statement, please use the five point scale provided, as follows:

1 = Strongly agree
2 = Agree
3 = Hold no particular view
4 = Disagree
5 = Strongly disagree

23 Nature of Management Accounting Task

23.1 It is a purely a technical activity, necessary for the pursuit of organisational objectives ☐ ☐ ☐ ☐ ☐

23.2 It is a management activity, limited to a staffing role, to provide support to line managers through the provision of information for planning and control purposes ☐ ☐ ☐ ☐ ☐

23.3 It is an integral part of the management process that focuses on the use of resources to create value. ☐ ☐ ☐ ☐ ☐

23.4 Other role? ☐ ☐ ☐ ☐ ☐

24 Team Orientation

24.1	The management accounting process is a distinct process that stands apart form other managerial or operative processes and merely reports to them in a functional capacity	☐	☐	☐	☐	☐
24.2	The management accounting process is deployed within and conducted through the various types of teams established to undertake the work of the organisation.	☐	☐	☐	☐	☐
24.3	Other orientation?	☐	☐	☐	☐	☐

GENERAL COMMENTS

Briefly describe the management accounting function as performed in your organisation:

_____

_____

_____

_____

What, in your opinion, should the management function consist of, for your organisation?

_____

_____

_____

Why do you believe are the reasons for the difference? (If applicable)

_____

_____

Any other comment that you may wish to make:

ANNEXURE 3 QUESTIONNAIRE (Service)

Only amended questions have been listed (paragraph 5.8.3.2: page 104)

		RANK 1	2	3	4	5	Office use only
4	**Product Costing**						
4.1	Direct and indirect costs only	☐	☐	☐	☐	☐	
4.2	Inclusive of product development costs	☐	☐	☐	☐	☐	
8	**Quality Management**						
8.1	Analysis of customer complaints to detect poor service	☐	☐	☐	☐	☐	
8.2	Quality measurement procedures built into each step of service process	☐	☐	☐	☐	☐	

APPENDIX 1
MANAGEMENT ACCOUNTING: STRUCTURED INTERVIEW
Schedule of Questions

INSTRUCTIONS

These instructions are to be verbally explained to the interviewee.

For each function,task or method, please use the five point scale provided, as follows:

1 = Extensive part
2 = Significant part
3 = Limited part
4 = No part
5 = Not applicable

RED Stage one and two
BLUE Stage three and four

MANAGEMENT ACCOUNTING TECHNOLOGIES

Please indicate the extent to which the following functions, tasks, skills or methods form part of the management accounting function in your organisation:

		RANK 1	2	3	4	5	Office use only
1	**Method of overhead allocation**						
1.1	Standard costing - single cost driver	☐	☐	☐	☐	☐	
1.2	Standard costing - multiple cost driver	☐	☐	☐	☐	☐	
1.3	Activity based costing	☐	☐	☐	☐	☐	
1.4	Percentage of prime cost	☐	☐	☐	☐	☐	
2	**Standard costs and variance analysis**						
2.1	Performed monthly/weekly , based on historic data	☐	☐	☐	☐	☐	
2.2	Daily analysis, based on real time information	☐	☐	☐	☐	☐	
2.3	Establishment and maintenance of a system to be used by unit managers	☐	☐	☐	☐	☐	

3	**Budgetary Control**					
3.1	Annual incremental budgeting	☐	☐	☐	☐	☐
3.2	Zero-based budgeting	☐	☐	☐	☐	☐
3.3	Co-ordinating of participative budgeting	☐	☐	☐	☐	☐
3.4	Activity Based Budgeting	☐	☐	☐	☐	☐
4	**Product Costing**					
4.1	Direct and indirect costs only	☐	☐	☐	☐	☐
4.2	Inclusive of product development costs	☐	☐	☐	☐	☐
4.3	Inclusive of product decommissioning costs	☐	☐	☐	☐	☐
4.4	Inclusive of waste management costs	☐	☐	☐	☐	☐
5	**Performance Measurement**					
5.1	Based on financial indicators only	☐	☐	☐	☐	☐
5.2	Based on financial and non financial indicators	☐	☐	☐	☐	☐
5.3	Based on short-term factors only	☐	☐	☐	☐	☐
5.4	Based on short-term and long-term factors	☐	☐	☐	☐	☐
6	**Customer Analysis**					
6.1	Perform profitability analysis of various customers	☐	☐	☐	☐	☐
6.2	Promote and assist in developing partnership/ contractual arrangements with various customers	☐	☐	☐	☐	☐
6.3	Analyse historic sales trends on various customers to assist marketing department	☐	☐	☐	☐	☐
6.4	Provide development department with historic cost data on various products for improvement and enhancement purposes	☐	☐	☐	☐	☐

7	**Supplier Analysis**					
	7.1 Maintain a JIT stock management system	☐	☐	☐	☐	☐
	7.2 Promote and assist in developing partnership/ contractual arrangements with various suppliers	☐	☐	☐	☐	☐
	7.3 Perfvorm comparitive analysis of internal service costs and costs of outsourcing	☐	☐	☐	☐	☐
	7.4 Provide feedback to purchasing department regarding cost/quality criteria of existing suppliers	☐	☐	☐	☐	☐
8	**Quality Management**					
	8.1 Defective products identified at the end of production process	☐	☐	☐	☐	☐
	8.2 All raw materials subjected to quality checking procedures, prior to start of production	☐	☐	☐	☐	☐
	8.3 Quality measurement procedures built into each step of production process	☐	☐	☐	☐	☐
	8.4 Maintain a quality assurance program of zero defects	☐	☐	☐	☐	☐
9	**Measurement of Outcomes of Management Accounting Utility**					
	9.1 Regularly assess the outcomes of the management accounting process in terms of the value that it adds to the organisation, judged from the perspectives of the users	☐	☐	☐	☐	☐
	9.2 Establish staged performance objectives for the management accounting tasks to be performed, negotiated and agreed to within the organisation.	☐	☐	☐	☐	☐
	9.3 Perform a cost benefit analysis of the work processes and outcomes of the management accounting function	☐	☐	☐	☐	☐

10	**Creating Opportunities**					
10.1	To be proactive in seeking and finding opportunities for value creation **within your organisation**	☐	☐	☐	☐	☐
10.2	To be proactive in seeking and finding opportunities for value creation **within and outside your organisation**	☐	☐	☐	☐	☐

Please indicate the extent to which the following policies are applicable to the management accounting function:

11	**Continuous Improvement (As it relates to the management accounting function)**					
11.1	Establishing a policy of continuous improvement	☐	☐	☐	☐	☐
11.2	Training employees in the implementation of a policy of continuous improvement	☐	☐	☐	☐	☐
11.3	Establishing a system of reward for continuous improvement	☐	☐	☐	☐	☐
11.4	Evaluating the cost benefit ratio of an existing policy of continuous improvement	☐	☐	☐	☐	☐
12	**Bench Marking (As it relates to the management accounting function)**					
12.1	Establish standards of best practice	☐	☐	☐	☐	☐
12.2	Establish standards of best practice based on internally generated information	☐	☐	☐	☐	☐
12.3	Establish standards of best practice based on internally and externally generated information	☐	☐	☐	☐	☐
12.4	Continually review standards of best practice	☐	☐	☐	☐	☐

MANAGEMENT PROCESS PARTICIPATION

13 Organisational direction setting

13.1 Strategy formulation and implementation ☐ ☐ ☐ ☐ ☐

13.2 Project appraisal and implementation ☐ ☐ ☐ ☐ ☐

13.3 Business planning ☐ ☐ ☐ ☐ ☐

13.4 Resource deployment ☐ ☐ ☐ ☐ ☐

14 Organisational structuring

14.1 Designing organisational and business processes to support strategies ☐ ☐ ☐ ☐ ☐

14.2 Aligning capabilities with processes and systems ☐ ☐ ☐ ☐ ☐

14.3 Decision making about the outsourcing or insourcing of processes, capabilities and systems ☐ ☐ ☐ ☐ ☐

14.4 Deploying resources to processes, systems and capabilities ☐ ☐ ☐ ☐ ☐

15 Organisational commitment

15.1 Building understanding of key organisational success factors and capabilities ☐ ☐ ☐ ☐ ☐

15.2 Building motivation and trust across all organisational participants ☐ ☐ ☐ ☐ ☐

15.3 Establishing and implementing mechanisms for the sharing of gains and success ☐ ☐ ☐ ☐ ☐

15.4 Providing feedback on individual, team and organisational development ☐ ☐ ☐ ☐ ☐

16 Organisational change

16.1	Establishing change targets and goals	☐	☐	☐	☐	☐
16.2	Re-engineering or continuous improvement initiatives	☐	☐	☐	☐	☐
16.3	Providing information or feedback related to change initiatives	☐	☐	☐	☐	☐
16.4	Monitoring the outcomes of change initiatives	☐	☐	☐	☐	☐

17 Organisational control

17.1	Profiling the risk exposures associated with organisational strategies and business processes	☐	☐	☐	☐	☐
17.2	Estabilshing and managing control parameters related to risk exposures	☐	☐	☐	☐	☐
17.3	Establishing performance criteria and measures related to the organisation's strategic success	☐	☐	☐	☐	☐
17.4	Establishing performance criteria and measures related to the organisations success from a financial and non-financial perspective	☐	☐	☐	☐	☐

SKILLS REQUIRED

18 Communication & Interpersonal Skills

18.1	Verbal communication at corporate level	☐	☐	☐	☐	☐
18.2	Verbal communication at operational level	☐	☐	☐	☐	☐
18.3	Written communication at corporate level	☐	☐	☐	☐	☐
18.4	Written communication at operational level	☐	☐	☐	☐	☐
18.5	Presentation skills using electronic media	☐	☐	☐	☐	☐

19 General Management Skills

19.1 Objective setting ☐ ☐ ☐ ☐ ☐

19.2 Planning, organising, leading ☐ ☐ ☐ ☐ ☐

19.3 Managing change and conflict ☐ ☐ ☐ ☐ ☐

19.4 Group facilitation ☐ ☐ ☐ ☐ ☐

19.5 Evaluate existing management style and recommend changes ☐ ☐ ☐ ☐ ☐

20 Human Resource Management Skills

20.1 Human resource planning ☐ ☐ ☐ ☐ ☐

20.2 Human resource compensation ☐ ☐ ☐ ☐ ☐

21 Management Information Systems

21.1 Design of information requirements ☐ ☐ ☐ ☐ ☐

21.2 Analysis and interpretation of real time information ☐ ☐ ☐ ☐ ☐

21.3 Incorporate of non-financial factors into management information systems ☐ ☐ ☐ ☐ ☐

21.4 Use of modelling, simulation and forecasting techniques ☐ ☐ ☐ ☐ ☐

FINANCIAL REPORTING BIAS

22 Financial Reporting Bias

22.1 Preparation of a single stock valuation schedule suitable for financial and management reporting purposes ☐ ☐ ☐ ☐ ☐

22.2 Prepare equal reporting periods for financial and management accounting purposes ☐ ☐ ☐ ☐ ☐

22.3 Performance measurement of various products and business units based on financial reporting periods ☐ ☐ ☐ ☐ ☐

22.4 Fixed asset depreciation schedules prepared suitable for financial reporting purposes ☐ ☐ ☐ ☐ ☐

MANAGEMENT ACCOUNTING FUNCTION

How is management accounting, as a field of activity or process, positioned in your organisation?

For each statement, please use the five point scale provided, as follows:

1 = Strongly agree
2 = Agree
3 = Hold no particular view
4 = Disagree
5 = Strongly disagree

23 Nature of Management Accounting Task

23.1 It is a purely a technical activity, necessary for the pursuit of organisational objectives ☐ ☐ ☐ ☐ ☐

23.21 It is a management activity, limited to a staffing role, to provide support to line managers through the provision of information for planning and control purposes ☐ ☐ ☐ ☐ ☐

23.3 It is an integral part of the management process that focuses on the use of resources to create value. ☐ ☐ ☐ ☐ ☐

24 Team Orientation

24.1 The management accounting process is a distinct process that stands apart form other managerial or operative processes and merely reports to them in a functional capacity ☐ ☐ ☐ ☐ ☐

24.2 The management accounting process is deployed within and conducted through the various types of teams established to undertake the work of the organisation. ☐ ☐ ☐ ☐ ☐

ANNEXURE 5 Z-TABLE

Normal distribution

Area of normal distribution that is to the right of + z or to the left of - z standard deviations from the mean

z	.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.5000	0.4960	0.4920	0.4880	0.4840	0.4801	0.4761	0.4721	0.4681	0.4641
0.1	0.4602	0.4562	0.4522	0.4483	0.4443	0.4404	0.4364	0.4325	0.4285	0.4247
0.2	0.4207	0.4168	0.4129	0.4090	0.4052	0.4013	0.3974	0.3936	0.3897	0.3859
0.3	0.3821	0.3783	0.3745	0.3707	0.3669	0.3632	0.3594	0.3557	0.3520	0.3483
0.4	0.3446	0.3409	0.3372	0.3336	0.3300	0.3264	0.3228	0.3192	0.3156	0.3121
0.5	0.3085	0.3050	0.3015	0.2981	0.2946	0.2912	0.2877	0.2843	0.2810	0.2776
0.6	0.2743	0.2709	0.2676	0.2643	0.2611	0.2578	0.2546	0.2514	0.2483	0.2451
0.7	0.2420	0.2389	0.2358	0.2327	0.2296	0.2266	0.2236	0.2206	0.2177	0.2148
0.8	0.2119	0.2090	0.2061	0.2033	0.2005	0.1977	0.1949	0.1922	0.1894	0.1867
0.9	0.1841	0.1814	0.1788	0.1762	0.1736	0.1711	0.1685	0.1660	0.1635	0.1611
1.0	0.1587	0.1562	0.1539	0.1515	0.1492	0.1469	0.1446	0.1423	0.1401	0.1379
1.1	0.1357	0.1335	0.1314	0.1292	0.1271	0.1251	0.1230	0.1210	0.1190	0.1170
1.2	0.1151	0.1131	0.1112	0.1093	0.1075	0.1056	0.1038	0.1020	0.1003	0.0985
1.3	0.0968	0.0951	0.0934	0.0918	0.0901	0.0885	0.0869	0.0853	0.0838	0.0823
1.4	0.0808	0.0793	0.0778	0.0764	0.0749	0.0735	0.0721	0.0708	0.0694	0.0681
1.5	0.0668	0.0655	0.0643	0.0630	0.0618	0.0606	0.0594	0.0582	0.0571	0.0559
1.6	0.0548	0.0537	0.0526	0.0516	0.0505	0.0495	0.0485	0.0475	0.0465	0.0455
1.7	0.0446	0.0436	0.0427	0.0418	0.0409	0.0401	0.0392	0.0384	0.0375	0.0367
1.8	0.0359	0.0351	0.0344	0.0336	0.0329	0.0322	0.0314	0.0307	0.0301	0.0294
1.9	0.0287	0.0281	0.0274	0.0268	0.0262	0.0256	0.0250	0.0244	0.0239	0.0233
2.0	0.0228	0.0222	0.0217	0.0212	0.0207	0.0202	0.0197	0.0192	0.0188	0.0183
2.1	0.0179	0.0174	0.0170	0.0166	0.0162	0.0158	0.0154	0.0150	0.0146	0.0143
2.2	0.0139	0.0136	0.0132	0.0129	0.0125	0.0122	0.0119	0.0116	0.0113	0.0110
2.3	0.0107	0.0104	0.0102	0.0099	0.0096	0.0094	0.0091	0.0089	0.0087	0.0084
2.4	0.0082	0.0080	0.0078	0.0075	0.0073	0.0071	0.0069	0.0068	0.0066	0.0064
2.5	0.0062	0.0060	0.0059	0.0057	0.0055	0.0054	0.0052	0.0051	0.0049	0.0048
2.6	0.0047	0.0045	0.0044	0.0043	0.0041	0.0040	0.0039	0.0038	0.0037	0.0036
2.7	0.0035	0.0034	0.0033	0.0032	0.0031	0.0030	0.0029	0.0028	0.0027	0.0026
2.8	0.0026	0.0025	0.0024	0.0023	0.0023	0.0022	0.0021	0.0021	0.0020	0.0019
2.9	0.0019	0.0018	0.0018	0.0017	0.0016	0.0016	0.0015	0.0015	0.0014	0.0014
3.0	0.0013									
3.05	0.0011									
3.10	0.0010									
3.25	0.0006									
3.50	0.00023									

Source: Moyer et al. (1997: T-10)

Example: If desired value = 2.5, the mean = 2.357 and standard deviation = .308 then:
z = (2.5-2.357)/.308 = .464
Value on table = .3228
This is the value to the right of 2.5 on the normal distribution curve.
The value to the left of 2.5 is 1.000-.3228 = .6772 = 67.72%

ANNEXURE 6

GENERAL ACCOUNTING PLAN

ODUCTION SYSTEMS SECTOR
mpany

RMATAT CED - STATEMENTS OF INCOME BY DESTINATION

Description	ACTUAL	BUDGET	ACTUAL	Δ	
			Previous year	Budget	P.Y.
	%	%	%		
REVENUES					
Net revenues third parties Italy	#DIV/0!	#DIV/0!	#DIV/0!		
Net revenues third parties abroad	#DIV/0!	#DIV/0!	#DIV/0!		
Net revenues other Sectors Italy	#DIV/0!	#DIV/0!	#DIV/0!		
Net revenues other Sectors abroad	#DIV/0!	#DIV/0!	#DIV/0!		
Net revenues COMAU Sector Units Italy	#DIV/0!	#DIV/0!	#DIV/0!		
Net revenues COMAU Sector Units abroad	#DIV/0!	#DIV/0!	#DIV/0!		
Net revenues COMAU Infra Group Italy	#DIV/0!	#DIV/0!	#DIV/0!		
Net revenues COMAU infra Group abroad	#DIV/0!	#DIV/0!	#DIV/0!		
Infra Divisions	#DIV/0!	#DIV/0!	#DIV/0!		
luction Variable Cost Of Sales	#DIV/0!	#DIV/0!	#DIV/0!		
able Selling Expenses	#DIV/0!	#DIV/0!	#DIV/0!		
l Cost Of Sales	#DIV/0!	#DIV/0!	#DIV/0!		
TRIBUTION MARGIN	#DIV/0!	#DIV/0!	#DIV/0!		
luction Fixed Cost Of Sales					
SS MARGIN	#DIV/0!	#DIV/0!	#DIV/0!		
nses - Production Management	#DIV/0!	#DIV/0!	#DIV/0!		
nses - Selling	#DIV/0!	#DIV/0!	#DIV/0!		
of which : Advertising Expenses	#DIV/0!	#DIV/0!	#DIV/0!		
nses - General and Administrative	#DIV/0!	#DIV/0!	#DIV/0!		
Total General Expenses	#DIV/0!	#DIV/0!	#DIV/0!		
nses - Research and Development	#DIV/0!	#DIV/0!	#DIV/0!		
l Overhead Expenses	#DIV/0!	#DIV/0!	#DIV/0!		
sses on disposal of tangible fixed assets					
parties					
r Sectors					
au Sector Units					
Group					
ther Operating Costs					
al Operating Costs					
ins on disposal of tangible fixed assets					
parties					
Sectors					
au Sector Units					
Group					
ner Operating Income					
otal Operating Income					
ner Operating (Expense) Income	#DIV/0!	#DIV/0!	#DIV/0!		
lt of Operations	#DIV/0!	#DIV/0!	#DIV/0!		
ividends and advances on dividends received					
parties					
Sectors					
u Sector Units					
Group					
ax Credit on dividend					
parties					
Sectors					
u Sector Units					
Group					

GENERAL ACCOUNTING PLAN

RODUCTION SYSTEMS SECTOR
ompany

ORMATAT CED - STATEMENTS OF INCOME BY DESTINATION

Description	ACTUAL %	BUDGET %	ACTUAL Previous year %	Δ Budget	Δ P.Y.
Gains on disposal of investment not held as fixed assets					
ird parties					
ther Sectors					
omau Sector Units					
fra Group					
Revaluation of equity investments					
ird parties					
ther Sectors					
omau Sector Units					
fra Group					
Amount Written-off equity investments					
ird parties					
ther Sectors					
omau Sector Units					
fra Group					
Total Income from Investments					
Interest and other Financial Income					
ird parties					
her Sectors					
omau Sector Units					
fra Group					
Interest and other Financial Expenses					
Financial Income/(Expense) from-off Balance Sheet transactions in interest rates					
Balance Interest and other financial (expense)income					
Exchange rates differences : Losses(Gains)					
Income/(Expense) from-off Balance Sheet transactions in exchange rates					
Net Effect of Exchange Dealings (Losses) Gains					
t Financial (Expense)/Income	#DIV/0!	#DIV/0!	#DIV/0!		
SULT BEFORE TAXES AND EXTRAORDINARY ITEMS	#DIV/0!	#DIV/0!	#DIV/0!		
Gain on disposal of equity investments held as Fin.Fixed Assets					
ird parties					
ner Sectors					
mau Sector Units					
a Group					
Other Extraordinary Income					
Total Extraordinary Income					
Losses on disposal of equity investments held as Fin.Fixed Assets					
rd parties					
ner Sectors					
mau Sector Units					
a Group					
Other Extraordinary Charges					
Total Extraordinary Expense					
Extraordinary Income/(Expense)	#DIV/0!	#DIV/0!	#DIV/0!		
SULT BEFORE TAXES	#DIV/0!	#DIV/0!	#DIV/0!		
P (Local tax)					
er income taxes					
erred income taxes					
Total Income Taxes					
T INCOME (LOSS) BEFORE MINORITY INTEREST	#DIV/0!	#DIV/0!	#DIV/0!		
ority interest (Third Parties)					
ority interest (Fiat)					
Income /(Loss)					

GENERAL ACCOUNTING PLAN

PRODUCTION SYSTEMS SECTOR
Company

FORMAT SPA - BALANCE SHEET

Description	Actual	Budget	Actual P.Y.	Δ Budget	Δ P.Y.
Trade Receivables					
Third parties					
Other Sectors					
Comau Sector Units					
Infra Group					
Other Receivables, accrued income and prepaid expenses					
Third parties					
Other Sectors					
Comau Sector Units					
Infra Group					
Inventories					
Trade Payables					
Advances from customers on long-terms contracts					
Third parties					
Other Sectors					
Comau Sector Units					
Infra Group					
Advances from customers for goods and services					
Third parties					
Other Sectors					
Comau Sector Units					
Infra Group					
Other Payables, accrued charges and deferred income					
TOTAL WORKING CAPITAL					
Tangible Fixed Assets, Gross					
(Accumulated Depreciation and Adjusting Reserves)					
Tangible Fixed Assets, Net					
Intangible Fixed Assets, Net					
Equity Investments held as Fixed Assets					
Third parties					
Other Sectors					
Comau Sector Units					
Infra Group					
Equity Investments not held as Fixed Assets					
Third parties					
Other Sectors					
Comau Sector Units					
Infra Group					
Total Equity Investments					
Securities and Bonds (Other Long Terms Investments)					
TOTAL FIXED CAPITAL					
Deferred Tax Assets					
Reserve for deferred Income Taxes					
Reserve for deferred Income Taxes, Net					
Reserve for Taxes					
Insurance Companies' Actuarial Reserves					
Warranty Reserve					
Other Reserves					
Reserve for Employee Severance Indemnities					
TOTAL RESERVES					

GENERAL ACCOUNTING PLAN

NET CAPITAL EMPLOYED					
Liquid Funds					
Financial Receivables (held and not held as fixed) and other securities					
Third parties					
Other Sectors					
Comau Sector Units					
Infra Group					
Financial Payables					
Net Interest (Incurred)/Earned on Financial Position					
NET FINANCIAL POSITION					
Capital Stock and Reserves					
Subscribed Capital Stock					
Capital Reserves and Retained Earnings					
Cumulative ranslation Adjustments					
Net Income (Loss)					
STOCKHOLDERS' EQUITY					
Minority Interest -third Parties					
Minority Interest -Fiat					
Stockholders' Equity of the Group					

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