Management Perspectives on the Role of the Management Accountant as an Information Provider

by

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DECLARATION

I hereby certify that this material which I now submit for assessment on the programme of study leading to the award of a masters degree in business studies by research is entirely my own work and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my own work.

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ABSTRACT

The management accountant (MA) has traditionally been described as having two distinct roles. One role centres on control, the other on decision-making (DM) (Hopper, 1980). Developments in the business environment have altered the dynamics of these two roles suggesting that the contemporary MA is responsible for providing an increasingly wide range of information. The literature suggests that this can only be achieved if the MA becomes a hybrid accountant who assists managers in controlling the organisation in a modern context, while also occupying a 'business partner' role along side the management team (Burns and Yazdifar, 2001). A review of the literature identifies a need for a rigorous and up-to-date examination of the MA's role and exposes a dearth of empirical research reporting managers' perceptions of the MA's role (Pierce and O'Dea, 2003). In response, this dissertation reports the findings from an empirical study of managers' perceptions of the role of MAs in the provision of information for control and DM.

Research questions were generated in the context of key control frameworks presented in the literature, as well as significant prior empirical research on the MA's evolving role, user perceptions and the impact of change and contingent variables on the MA's role. Semi structured interviews were carried out with eighteen managers regarding their information requirements, their expectations of the information provider, the perceived performance of their respective MAs relative to these expectations and perceived conflicts inherent in the MA's role.

A mixture of quantitative and qualitative data were gathered. The quantitative results were subject to statistical analysis and the qualitative results were analysed through an iterative process of coding and analytical induction.

A framework of analysis was developed through which these findings could be interpreted in detail. Using this framework, the different types of MA evident from the findings were refined to four possible categories: the Reporter, the Guardian, the Interpreter and the Participator. Several factors were identified which may be associated with the role played by the MA. In addition, some further insights were gathered facilitating a deeper understanding of the complexities of the MA's contemporary role.

The study highlights the diversity of management accounting roles among different organisations. It examines what managers are looking for in the context of support for control and DM, and provides an insight into the levels of satisfaction among managers as to the role played by their MA in this regard. The study broadens our understanding of the control frameworks presented in the literature and examines the concept of the hybrid accountant, presenting a more detailed definition of the hybrid accountant than has previously been presented in the literature. Finally, the study increases our understanding of the conflicts inherent in the MA's role, as perceived by the managers.

By focusing on managers' perceptions of the role of MAs, this study addresses a significant gap in the literature. It provides a deeper and more contemporary insight into the contingency-based research surrounding the MA's role. It also contributes to the literature in the area of control, MA roles, the hybrid accountant and MA role conflict. The study concludes by suggesting possible directions for future research.

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TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

List of Figures

List of Tables

LIST OF ABBREVIATIONS

ABC : Activity Based Costing

AI : Analytical Induction

DCF : Discounted Cash Flow

DM : Decision-making

ERP : Enterprise Resource Planning

IMA : Institute of Management Accountants

IT : Information Technology

MA : Management Accountant

MAS : Management Accounting Systems

NPV : Net Present Value

ROI : Return on Investment

RQ : Research Question

SAC Skill, attribute and competency

SACs : Skills, attributes and competencies

SMA : Strategic Management Accounting

CHAPTER 1

Background, objectives and overview of the study

1.1 INTRODUCTION

The management accounting literature has traditionally presented the management accountant (MA) as someone with two distinct roles. One role centres on monitoring, control and scorekeeping, the other involves supporting managerial decision-making (DM) and assisting in problem solving (Hopper, 1980). As the business environment has developed and transformed over the past two decades (Otley, 1994; Cooper, 1995; Burns, Scapens and Turley, 1996), the dynamics of these two roles have altered significantly (Granlund and Lukka, 1998). The literature suggests that contributing to control, in today's environment, involves putting financial numbers in a strategic context and relating non financial results to strategic objectives (Burns, Ezzamel and Scapens, 1999). Contributing to DM requires the MA to be strategically aware with sufficient business knowledge to be able to advise management for the purposes of DM (Burns and Yazdifar, 2001).

There is a dearth of empirical research reporting managers' perceptions of the MA's role (Pierce and O'Dea, 2003). The contemporary literature is not clear on the extent to which MAs have embraced the changes in the business environment, nor does it adequately reflect the opinions of managers with regard to the MA's role in light of such changes. In response, this dissertation reports the findings from an empirical study of managers' perceptions of the role of the MA.

1.2 BACKGROUND TO THE STUDY

1.2.1 The objectives of the management accountant

Simon, Guetzkow, Kozmetsky and Tyndall (1954) describe accounting in the context of three functions: scorekeeping, attention directing and problem solving. Scorekeeping data includes routine financial reports and accounts. Attention directing data includes data which compares actual performance with standard so that deviations may be highlighted. Problem solving data includes any type of data which helps managers to make decisions. Hopper (1980) considers scorekeeping and attention directing to fall under the common umbrella of control, while Simon (1960) considers problem solving and DM to be inextricably linked. In this way, the

2

fundamental objective of the MA, as traditionally presented in the literature, is the provision of information to support control and DM (Belkaoui, 1980; Emmanuel, Otley and Merchant, 1991; Drury, 2004).

1.2.2 The development of organisational control

Organisational control may be described as the way in which managers manage the organisation so that it achieves its chosen objectives (Otley and Berry, 1980). Anthony (1965) discusses organisational control in the context of strategic planning, management control and operational control. Strategic planning involves deciding on the organisations objectives, as well as the resources and policies necessary to achieve those objectives. Management control describes the means by which managers ensure that these resources are obtained and used effectively and efficiently in achieving the objectives. Operational control involves ensuring that all of the organisation's day-to-day tasks are carried out properly. Anthony focuses on management control and emphasises the use of accounting measurements as a key control tool but he ignores strategic planning and operational control which leads to an overly simplified control model which cannot cope with many of the complexities of the business environment (Otley, 1994).

Otley and Berry (1980) present a more holistic control model which embraces strategic planning and operational control, as well as management control, by recognising the significance of the organisation's relationship with its external environment and encouraging the organisation to adapt and learn as environmental changes occur.

Otley (1999), responding to changes in the business environment, presents a control framework which progresses from measuring organisational performance to managing organisational performance. He suggests that an organisation is performing well if it is successfully achieving its objectives and he argues that the traditional frameworks presented by Anthony (1965) and Otley and Berry (1980) will not facilitate this type of control. Otley (1999) describes the necessity to motivate and incentivise employees to achieve organisational objectives and discusses the role of information as a key ingredient in this modern control framework.

Essentially, these frameworks represent the progression of thought in the literature with regard to control in response to changes and developments in the business environment. Simons (1995) developed a framework which, he claims, describes the fundamental elements of an effective control system. Simons' (1995) four levers of control encapsulate this progression of thought in the control literature. Simons' (1995) diagnostic and boundary control systems are consistent with the hierarchical approach to control presented by Anthony (1965) and Otley and Berry (1980), while his belief and interactive control systems are consistent with Otley's (1999) modern view of control. The contemporary view of control recognises the growing voice of employees within the organisation and suggests that the traditional control tools of accountability and performance appraisal must be applied in a manner which motivates all employees towards achieving the organisation's objectives.

1.2.3   The development of organisational decision-making

A key function of the MA is to support managers in their DM (Emmanuel *et al*, 1991). Anthony (1965) describes DM in the context of operational, managerial and strategic decisions. Operational decisions involve specific tasks and generally span a short time-frame, e.g. inventory ordering. Managerial decisions require more subjective interpretation and judgement than operational decisions, e.g. budget preparation. Finally, strategic decisions are more future oriented, span a longer time frame and require the decision-maker to have a strong awareness of the relationship between the organisation and the external environment, e.g. new product planning (Belkaoui, 1980). Simon (1960) differentiates between structured decisions which are repetitive and routine, and unstructured decisions which are ad hoc and unpredictable. Like control, the nature of DM has evolved. As the business environment has become less predictable, the decisions facing managers have become more unstructured in nature (Otley, 1994). DM is becoming more dependant on critical analysis and interactive discussion than on mathematical modelling and linear programming. Also, the responsibility for organisational adaptability and flexibility no longer rests with just senior management and so the distinction between operational management, middle management and strategic management is blurring (Ezzamel, Lilley and Willmott, 1994).

1.2.4 The management accountant's role in control and decision-making

Johnson and Kaplan (1987) initiated concerns in the text 'Relevance Lost: The Rise and Fall of Management Accounting' as to the continued relevance of management accounting techniques in light of changes in the business environment. This was followed by a decade of criticisms of the management accounting profession coupled with suggestions for improvement (Cooper and Kaplan, 1987; 1988; 1991; Kato, 1993; Bromwich and Bhimani, 1994). Pierce and O'Dea (1998), however, reported that traditional control techniques such as budgets, variance analysis and standard costing were as popular as ever and Burns and Yazdifar (2001) reported that modern DM tools such as Activity Based Costing (ABC) were enjoying only modest application. The literature suggests that the changes occurring in the management accounting profession were not necessarily in terms of the tools and techniques which the MAs were using for control and DM, but more in terms of who was performing these management accounting tasks and how they were being performed (Scapens, Turley, Burns, Joseph, Lewis and Southworth, 1996). According to the literature, the MA was expected to provide more non-financial information (Drury, Braund, Osborne and Tayles, 1993) and 'softer', more strategically relevant information (Roslender, 1996).

The 1990s witnessed vast improvements in field-based research methods, resulting in more management accounting studies being conducted, addressing issues not previously focused on in the management accounting literature (Scapens and Bromwich, 2001). Topics such as the MA's role (Granlund and Lukka, 1998), the MA's competencies (Brignall, Fitzgerald, Johnston and Markou, 1999), management accounting practices (Friedman and Lyne, 1997) and the impact of change on the MA (Burns et al, 1996) all became key areas for analysis. The Siegel and Kulesza (1994) and Siegel and Sorensen (1999) 'practice analyses' both represented key studies into the MA's skills and competencies, management accounting tasks and the MA's role in general. Increasingly, the literature was presenting a MA who interpreted information so as to facilitate control in a contemporary business environment and contribute to DM in a more useful manner. The term 'hybrid accountant' (Burns et al, 1999) was coined to encapsulate this dual role of the

5

modern MA. The literature suggested that this modern MA would address all of the challenges posed by the modern business environment in terms of control and DM. This suggests a change in the type of information provided by the contemporary MA when compared with the traditional MA. It suggests a shift in the key traits and characteristics of the modern MA and an alteration in managers' expectations of the MA.

1.3 NEED FOR RESEARCH ON THIS TOPIC

A significant amount of research has been published predicting the demise of the traditional MA (Friedman and Lyne, 1997; Brignall *et al*, 1999) in favour of a modern hybrid style MA (Burns *et al*, 1999; Burns and Yazdifar, 2001). Burns *et al* (1999) predict that the future MA will work alongside and advise process managers, combining their financial knowledge with commercial awareness together with a broad-based understanding of the business. Burns and Yazdifar (2001) anticipate traditional management accounting tools being adopted in conjunction with strategy-led tools such as rolling forecasts and strategic management accounting. Siegel and Sorensen (1999) report that MAs now see themselves as business analysts actively involved in organisational DM. An up-to-date, rigorous examination of the MA's role is now necessary in order to ascertain the extent to which there is evidence of these predictions and expectations being realised.

In addition, there is a dearth of empirical research reporting managers' perceptions of the MA's role. Enquiries of MAs do little to establish if managers' needs are actually being met (Pierce and O'Dea, 2003). Therefore, an up-to-date, rigorous examination of managers' perceptions of the MA role is necessary.

Also, recent empirical research into the MA's role appears to have been carried out in isolation from the underlying theoretical frameworks presented in the literature. It is difficult to relate the results of the empirical reviews of the last two decades (e.g. Siegel and Kulesza, 1994; Friedman and Lyne, 1997; Siegel and Sorensen, 1999; Burns *et al*, 1999; Burns and Yazdifar, 2001) to the underlying theoretical frameworks preceding them (e.g. Simon *et al*, 1954; Otley and Berry, 1980; Simons,

1995; Otley, 1999). It is necessary to bring these two bodies of research closer together in order to gain a better understanding of both.

Concern has been expressed in the literature as to the conflicts inherent in the MA's role, whether it's the modern hybrid accountant role (Granlund and Lukka, 1998) or the traditional MA role (Perrow, 1970; Sathe, 1978; Hopper, 1980; Sathe, 1982). Few studies have examined managers' perceptions of these conflicts. It is important to understand if these conflicts are perceived to exist in all MAs and what factors might be associated with increased or decreased conflicts in different circumstances.

Up-to-date research is needed in order to ascertain managers' perceptions of the current status of the MA's role, specifically in the context of control and DM, and to identify the key factors influencing this role. This area of research addresses some gaps in the existing literature and has practical implications for the management accounting profession and for the future education of MAs.

1.4 OBJECTIVES OF THE RESEARCH

The general research objective and specific research questions are set out in detail in chapter 4 and are summarised briefly below. The general objective of this study is to examine managers' perceptions of the role of the MA in providing information for control and DM, as well as the factors influencing this role (4.2.1). This objective will be achieved by posing specific research questions as introduced below.

The role of information has been examined in detail in the literature (Belkaoui, 1980; Chenhall and Morris, 1986; Jonsson and Gronlund, 1988; Bruns and McKinnon, 1993; Mia and Chenhall, 1994; Mondoza and Bescos, 2001; Pierce and O'Dea, 2003; Van der Veeken and Wouters, 2002). A comprehensive list was derived from this literature of the characteristics most frequently referred to by managers when discussing their information requirements (2.6). The literature has not examined in detail the extent to which these characteristics may be considered as important for control as for DM and vice versa. The first research question therefore is to ascertain what characteristics of information do managers perceive to be important for (i) control and (ii) DM (4.2.2)?

Chapter 3 details the changes which have occurred in the business environment over the past two decades and the effects these changes have had on the role of the MA. Chapter 3 also describes how the various skills, attributes and competencies (SACs) of the MA have been reviewed in the literature (Siegel and Kulesza, 1994; Siegel and Sorensen, 1999; Burns *et al*, 1999; Pierce and O'Dea, 1998; Burns and Yazdifar, 2001). A comprehensive list was derived from this literature of the SACs often referred to by managers when discussing their information providers (3.8). Again, this literature has not focused on the extent to which these SACs may be considered as important for control as they are for DM, or vice versa. The second research question therefore is to ascertain what SACs managers perceive to be important in providers of information for (i) control and (ii) DM (4.2.3)?

Chapter 2 explains how the MA role, as traditionally presented in the literature, may be divided into two contrasting roles. From one perspective, the MA is relied upon to support the organisation's planning and control system; from another, to support organisational DM (2.2.4). The third research question therefore asks managers to what extent are MAs providing information for (i) control and (ii) DM (4.2.4)?

Prior empirical reviews focusing on information have examined managers' perceptions of the importance of specific information characteristics, or the MA's performance in relation to specific information characteristics. Few have attempted both, which is why the fourth research question in this study asks how effective the MA is perceived to be at providing useful information (4.2.5)?

Similarly, prior empirical research has focused on the importance of SACs, or the MA's performance in relation to SACs. Again, this study examines both. Examining the MAs' SACs in this way will highlight gaps between the managers' expectations and the MAs' perceived capabilities. In addition, many of these studies have focused on predicting future changes and anticipating future requirements. This study focuses on the actual experiences of managers in comparison with the predictions made in prior studies. The fifth research question therefore asks to what extent MAs display the SACs associated with providers of useful information (4.2.6)?

Chapter 2 describes the two distinct roles of the MA; one contributing to control, the other contributing to DM (2.2.4). Chapter 3 describes how these roles have become more conflicting as a result of all of the developments in the business environment and the resulting changes in the MA's role (3.2-3.3). The literature questions whether both roles can be occupied by the same person (Perrow, 1970; Sathe, 1978; Hopper, 1980, Sathe, 1982 Granlund and Lukka, 1998), but very few have examined this from a manager's perspective. The sixth research question therefore asks to what extent do managers perceive a conflict to exist in the MA's capacity to provide information for both control and DM (4.2.7)?

1.5 OVERVIEW OF STUDY DESIGN

In order to address the research questions and the underlying research objective set out in section 1.4, data were collected by means of eighteen semi-structured interviews with managers in eighteen different companies. A purposeful random sampling approach was used in sourcing these interviewees. This approach reduces bias but does prohibit statistical generalisation to a larger population.

Data were gathered from each manager during face-to-face interviews lasting approximately 60 minutes each. The quantitative and qualitative nature of the study is described in detail in chapter 4 and may be summarised as follows: Specific quantitative information was requested with regard to RQ1 relating to the importance of various information characteristics, RQ2 relating to the importance of various SACs, RQ4 relating to the MA's performance in terms of the information characteristics and RQ5 relating to the MAs performance in terms of the SACs. The managers were asked to choose their responses from a pre-determined scale and were then asked open-ended questions based on their quantitative answers. Open-ended questions only were asked in relation to RQ3 relating to the role played by their MA and RQ6 relating to perceived conflicts in the MA's role. The interview findings are presented in chapter 5.

After all of the interviews were completed, an extensive process of quantitative and qualitative analysis took place. The quantitative results were subjected to detailed non-parametric testing while the qualitative results were analysed using an iterative process of coding and analytical induction (AI). The analysis and interpretation of these findings are presented in chapter 6.

Several measures were taken to maximise the reliability and validity of these findings. Random sampling meant that all interviewees were consulted without a pre-conceived notion of the manager's responses. All transcripts and notes were reviewed after each interview at which time post interview notes were prepared. Each transcript was confirmed with each interviewee. All quantitative and qualitative analysis procedures were applied rigorously and documented methodically. The combination of qualitative and quantitative data gathering facilitated triangulation of results, and an iterative process of AI resulted in a detailed and lengthy study of the findings.

1.6 CONTRIBUTION OF THE STUDY

The findings were consistent with some areas of the literature, they served to contradict other areas of the literature and they addressed some areas not previously focused on in empirical studies. The contributions of this study are set out in detail in chapter 7 but a summary is set out below.

Firstly, the MA classification system developed from the findings of this study (6.2) is consistent with the progression of thought in the literature with regard to control. An analysis of the MA classification system in the context of the key control frameworks broadens our understanding of these control frameworks. The findings suggest that specific styles of control, as encapsulated within the frameworks, will only be successfully executed in specific organisational circumstances. Specifically, the findings suggest that growing competitive pressures may be associated with Simons' (1995) belief systems of control (6.4.2), increased financial security may be associated with Simons' interactive control systems (6.4.3) and a strong corporate influence may encourage Simons' diagnostic and boundary control system (6.4.4). In addition, the findings suggest that relationships and interactions between individuals

will also influence the style of control executed in an organisation. For instance, there is evidence that higher levels of manager independence from the MA may be associated with a traditional control approach being executed in the organisation (6.5.4). More territorial managers may operate within diagnostic and boundary control systems (6.5.5) and a modern control approach may be associated with MAs who exhibit a strong business understanding (6.6.1) and strong communication skills (6.6.2).

Secondly, the study responds to gaps in the literature by providing a rigorous and up-to-date analysis of managers' perceptions of the role of the MA in the context of control and DM. It presents a deeper understanding of what managers are looking for in terms of support for control and DM and raises awareness as to the levels of satisfaction among managers regarding their MAs' performance. It examines the concept of the hybrid accountant as presented in the literature and provides an up-to-date description of this so-called hybrid accountant as interpreted from the findings.

Thirdly, the study provides a deeper and more contemporary insight into the contingency-based research surrounding the MA's role. Chenhall (2003) suggested that future contingency-based research should focus on interactions between individuals and groups which might impact the MA's role. The study responds to this suggestion by examining how interactions between the manager and the MA may be associated with the role played by the MA. Specifically, the study identified how the relationship between the manager and the MA (6.5.3), the extent of manager independence from the MA (6.5.4) and levels of manager territorialism (6.5.5) affect the role played by the MA.

Finally, the study examines managers' perceptions of the conflicts inherent in the MA's role as a simultaneous 'controller' and 'supporter' of managers and employees. It highlights some factors which may be associated with these conflicts and discusses why some managers appear to be better equipped than others to overcome these conflicts.

1.7 ORGANISATION OF THE DISSERTATION

Following the overview of the research outlined in this chapter, the role of the MA as traditionally presented in the literature is reviewed in chapter 2. Most of this literature is theoretical in nature and presents some key frameworks which are revisited and referred to at various stages throughout the study. Chapter 3 examines the role of the MA as presented in the contemporary literature, most of which is empirical in nature.

Based on the literature reviewed in chapters 2 and 3, a research objective for the study was identified. This research objective is presented in chapter 4 together with six research questions to be addressed in pursuing this objective. The research design, data collection and data analyses procedures are also described in chapter 4.

The findings from the interviews, addressing each research question, are reported in chapter 5. Chapter 6 begins with a description of the MA classification system. This is the framework established in this study through which the study's findings are interpreted. Chapter 6 goes on to discuss these findings in the context of this framework. Finally, in chapter 7 the implications of the findings are examined along with a summary of the research, its conclusions, strengths, limitations, and suggestions for future research.

CHAPTER 2

The Traditional Role of the Management Accountant

2.1 INTRODUCTION

The relevance of management accounting in light of the changing business environment has been questioned at length in the literature (Kaplan, 1984, 1985, 1988, 1990; Johnson and Kaplan, 1987; Drury and Tayles, 1995 and Drury, 2004). There appears to be a significant difference between the traditional MA as portrayed in the textbooks and actual management accounting practices (Drury and Tayles, 1995). Traditional management accounting research output has been in the form of simplistic models of the outside world, rather than studies of 'best practice'. As a consequence, this literature has been criticised for becoming somewhat impractical and divorced from reality (Roslender, 1996). More recent empirical literature suggests that changes are taking place (Scapens *et al*, 1996; Burns *et al*, 1999; Burns and Yazdifar, 2001). These changes are occurring in terms of what management accounting is being done, how it is being done and who is doing it (Ezzamel *et al*, 1994). Chapter 2 will analyse the function of management accounting as traditionally presented in the well-established management accounting literature, most of which is theoretical in nature, while chapter 3 will address the role of the MA as reported in the contemporary empirical literature.

Section 2.2 sets out Simon et al's (1954) three functions of accounting data, ultimately concluding that traditionally the MA performed two key functions, providing information for control and providing information for DM. Section 2.3 lays out the key management control frameworks in the literature, namely, Anthony (1965), Otley and Berry (1980) and Simons (1995). Section 2.4 discusses the theoretical frameworks underlying DM revisiting Anthony (1965) and introducing Simon (1960). Section 2.5 provides a discussion on the key management accounting techniques, both traditional and new, available to the MA in providing information for both of these purposes. Section 2.6 presents a list of characteristics which may be used to assess the effectiveness of this information. Section 2.7 provides a chapter summary and conclusion.

2.2 SIMON ET ALS' FUNCTIONS OF ACCOUNTING INFORMATION

Simon *et al* (1954) maintain that the function of accounting information was threefold. Firstly, accounting information fulfils a scorekeeping function, in this capacity, it is expected to indicate how an organisation, or a part of an organisation is performing. Secondly, accounting information contributes to attention directing by highlighting problems, concerns or areas worthy of further investigation. Finally, accounting information is used for problem solving, where it provides information on alternative courses of action and facilitates informed DM.

2.2.1 Scorekeeping

Hopper (1980) describes a bookkeeper as one who is involved in the implementation and administration of financial systems to enable management to monitor employee performance. Whether one refers to it as scorekeeping, bookkeeping, record-keeping or bean-counting, ultimately it encapsulates such activities as the generation of monthly accounts and the consistent production of routine financial reports with which managers can monitor and control the performance of various sub-units within the organisation, as well as the organisation as a whole.

2.2.2 Attention Directing

Traditional accounting-based control systems provide a means of establishing quantitative standards of performance, which, when compared with actual performance will indicate deviations, thereby fulfilling Simon *et al's* (1954) attention directing function (Otley and Berry, 1980). Budgeting, standard costing and variance analysis are among the most commonly cited traditional accounting-based control tools (Drury, 2004).

2.2.3 Problem Solving

Simon *et al* (1954) describe two ways in which managers may rely on accounting information when engaged in problem solving. They may turn to the regular accounting reports which are a product of the scorekeeping and attention directing

15

functions discussed above. They may also require special studies for particular problems. Generally, each problem or issue faced by a manager will require the determination and investigation of potential courses of action out of which managers must decide on the best alternative. MAs are often relied upon, either through the elaboration of regular reports or through special analysis of core data, to provide information which identifies and/or expands upon these alternative courses of action and assists the manager in choosing the optimum one. This may include production cost comparisons, pricing decisions, inventory policies or capital investment decisions. Essentially, the MA has a responsibility to provide the requisite information to management in order to assist them in their decision making process.

2.2.4 The Traditional Management Accounting Dichotomy

Hopper (1980) identified the two contrasting roles of the traditional MA, that of the 'book-keeper' and the 'service aid'. The 'book-keeper' was concerned with maintaining a financial system to facilitate managerial measurement of performance, in other words, control. The 'service aid' delivered information to lower and middle management to assist them in their DM. Hopper (1980) and much of the literature of the 1980s was clear about the existence of both of these aspects of the MA's role and many were conscious of the conflicts and inconsistencies between them (Sathe, 1978; Perrow, 1970).

Hopper (1980) associated Simon *et al's* (1954) scorekeeping and attention direction functions of accounting data with the traditional control function of management accounting, while associating problem solving with DM. Simon *et al* pointed out that:

> ... no sharp line can be drawn between the scorekeeping and attention directing use of accounting data (pp.24).

Scorekeeping refers to the overall appraisal of an operating unit and attention directing involves highlighting specific problems which need to be addressed. Both may be carried out using the same or similar information, both are concerned with the monitoring and review of actual day-to-day performance and both often involve the comparison of this actual performance with a pre-determined expectation or

standard (Simon *et al*, 1954). Vickers (1967) described control in the context of regulation, i.e. a controller is concerned with identifying the difference between 'what is' and 'what ought to be' and any difference perceived here drives a necessity for action. Scorekeeping and attention directing can together be associated with this interpretation of control. Planning is a critical aspect of control. Planning involves systematically looking at the future so that decisions can be made which will bring the company its desired results. Control, therefore, is the process of measuring and correcting actual performance to ensure that plans for implementing the chosen course of action are effectively carried out (Drury, 2004). Planning and control are each two sides of the same coin (Emmanuel *et al*, 1991) and in this study any reference to control is assumed to incorporate planning also.

Meanwhile, Simon *et al's* (1954) problem solving function was expanded upon further by Simon (1960), who perceived problem solving and DM to be inextricably linked. He analysed the role of management accounting in DM in the context of the specific problems that needed to be solved by making decisions. Gorry-Scott Morton (1971) expanded this analysis citing examples of problems that needed to be solved, categorising these in terms of the type of decisions they trigger.

In this way, Simon *et al's* (1954) three functions of accounting data provide the basis for the dichotomous role of management accounting as traditionally perceived in the literature; scorekeeping and attention directing may be associated with the contribution of control information while problem solving may be associated with the contribution of DM information.

Managers in general are perceived to be in the business of DM and a key function of management accounting information is to facilitate and support such DM (Emmanuel *et al*, 1991). Such DM will frequently take place within a planning and control system as described at 2.3 below. DM and control are not mutually exclusive (Emmanuel *et al*, 1991) but for the purposes of this study, support of such DM is considered in its own right as a key function of management accounting which is separately identifiable from its function in supporting control.

2.3 AN ANALYSIS OF CONTROL

It has been historically difficult to develop a clear and unambiguous meaning of 'control'. Rathe (1960) presented '57 varieties' of meaning, the majority of which fell into either of two main themes. Firstly the concept of control as domination and secondly the concept of control as regulation. The regulatory meaning of control, which has been referred to at 2.2.4 above, appears to be the most applicable in a business context. Emmanuel *et al* (1991) describe control as:

> ... the process by which a system adapts itself to its environment (pp. 7).

This is in keeping with Vickers (1967) regulatory concept of control which maintains that in a business context the specification of objectives, as well as the specification of the methods of achieving these objectives, form the first part of the control process. This view develops the concept of control into the concept of organisational control. Organisational control refers to the process through which managers manage and regulate their organisation's affairs so that the organisation remains viable and achieves its chosen objectives (Otley and Berry, 1980). The following frameworks describe three alternative approaches to organisation control as presented in the literature.

2.3.1 Anthony's Control Framework

Anthony (1965) differentiated between strategic planning, management control and operational control. He described strategic planning as:

> ...the process of deciding on the objectives of the organisation, the resources used to obtain these objectives, and, the policies used to govern the use of these resources (pp.16).

Essentially, strategic planning is concerned with setting the long-term objectives of the organisation as a whole and developing some guidelines as to how these objectives may be met.

Management control was described as:

> ... a process by which managers assure that resources are obtained and used effectively and efficiently in accomplishing the organisation's objectives (pp.17).

In its entirety management control should be referred to as 'management planning and control' and it is concerned with the ongoing administration of the enterprise. This process ensures that the day-to-day organisational tasks are performed in a controlled and co-ordinated way that will result in goal attainment. Management control is carried out by managers, i.e. people who work with subordinates to get things done. It takes place within the context of the goals and objectives set at the strategic planning stage and the ultimate benchmarks for management control, as identified by Anthony (1965) are effectiveness and efficiency.

Operational control was described as:

> ... the process of assuring that specific tasks are carried out effectively and efficiently (pp.18).

This is the process of ensuring that the immediate day-to-day tasks are executed. Anthony (1965) clearly points out that the tasks to which operational control refers are specific, programmable tasks, about which little or no judgement is required.

2.3.2 Criticisms of Anthony's Control Framework

Having distinguished between the three different aspects of control, Anthony went on to discuss management control at length and appeared to attach comparatively little weight to strategic planning and operational control.

Operational control was neglected by Anthony (1965). It was thought that different types of organisations would have different operational control practices which would be too numerous and cumbersome to capture within the control framework. Free from the complications of operational control, Anthony (1965) focused on the middle range process of management control and concentrated on the commonalities existing between multiple organisations. Such focus on commonalities led to a reliance on the common language of accounting (Otley, 1999) and resulted in Anthony's (1965) interpretation of management control as a process of assuring the effective and efficient usage of resources in order to accomplish organisational objectives. Defining management control in this way drove Anthony's study to focus

primarily on accounting based organisational controls (Puxty, 1989). Anthony's limited consideration of the properties of operational control also ensured that the importance of organisational processes and functional workflows were never really recognised and were ultimately eliminated from his study of management control (Otley, Broadbent and Berry, 1995).

Anthony (1965) noted the critical issues with regard to strategic planning, namely, its complex and unsystematic nature, its necessity for an innovative and imaginative approach and its utilisation of information which is often non financial and qualitative in nature. However, he neglected to give these issues any further consideration and deliberately developed a control system which was common to all strategies. This led to an emphasis on the use of accounting measurement while neglecting non-financial performance measurement, leading to an unfortunate trend in the literature of financial measures being used as a convenient measure of more complex organisational issues (Otley, 1999).

Management control was viewed by Anthony as a separately identifiable process, which made possible the achievement of planned objectives within the confines of the parameters imposed by the strategic planning process. While some linkage was established between strategic planning and management control, and again between management control and operational control, Anthony stopped short of investigating the complexities and difficulties of the strategic planning and operational control processes and virtually ignored how either of these processes might affect or be affected by the process of management control. Anthony's framework for control, while initially groundbreaking, has been subsequently criticised in the literature for being excessively narrow in its view (Otley, 1994 and 1999; Otley *et al*, 1995). The reasons for this, as well as the effects of it, emerge in the analysis of subsequent frameworks for management control.

2.3.3 Otley and Berry's 'Cybernetic' Control Framework

Cybernetics is the study of how systems regulate themselves, reproduce themselves, evolve and learn (Pask, 1961). The major contribution of cybernetics is in the study of complex systems which recognise the evolving nature of systems in terms of their

feedback mechanisms and learning abilities (Ashby, 1956). Otley and Berry's (1980) Framework for Organisational Control, illustrated in figure 1, is an application of Tochers (1970) control model and represents the first real attempt to apply cybernetic theory to organisational control (Otley *et al*, 1995).

Otley and Berry's (1980) framework embraces the complexity of strategic planning and operational control, both of which were largely ignored by Anthony (1965) as described at 2.3.2 above. They introduce the idea of generating a predictive model which helps one to predict the consequences of certain control actions.

***Figure 1**: Otley and Berry (1980) Framework for Organisational Control*

This framework centres on a simple model involving inputs, a process, and outputs. Initially, outputs are compared with objectives. However the requisite knowledge of outputs or '*the true state of the real world*' (Otley and Berry, 1980) is not always easy to ascertain and will often require what Vickers (1967) describes as '*reality judgement*'. When outputs are actually compared with objectives, a certain amount of what Vickers (1967) describes as '*value judgement*' is required. Actual output is compared with objectives and a discrepancy or *mis-match* between the two is ascertained. Alternative courses of action are generated and evaluated. At this point it is necessary to predict or forecast the likely outcomes of the various alternatives. This requires *continuous interrogation of the predictive model*. Again, the knowledge of the true state of the real world may still be elusive at this point so *reality judgement* may be required. Finally an alternative course of action is selected and implemented. This will result in one or more of four actions. Firstly system inputs may be adjusted, referred to as *first order control*. Secondly system objectives may be altered, known as *second order control*. Thirdly the predictive model may be amended, referred to as *internal learning*, and/or finally the nature of the process itself may be altered, known as *systematic learning*.

This model can be applied anywhere, to any level of a system or sub system providing four conditions are met. Knowledge of outcomes must be available which requires feedback on actual performance. There must always be an objective and an effective predictive model, and finally a selected control action must be implemented.

Otley and Berry (1980) recognise the limitations of this framework;
1. Objectives are difficult to define and not easily reconciled between varying groups within the organisation;
2. Predictive models are often imprecise and inaccurate and there are usually several conflicting predictive models within a given control system;
3. Deciding upon an appropriate measure by which to compare actual results with desired objectives is complex and, again, organisationally conflicting. It will not always be appropriate for such measures to be financial in nature.
4. For a control system to be effective, individuals must be persuaded to implement the required actions. This raises the issue of appropriate

communication of what needs to be done, the motivation of individuals to do the necessary job and the adequacy of resources to implement the chosen course of action.

Despite these limitations, there can be no doubt that Otley and Berry's (1980) framework represents a significant step forward from the organisational control concepts of Anthony (1965). Otley and Berry embrace a holistic approach to organisational control, which relates strategic objectives to day-to-day operational processes and constantly revisits each stage of this process as events alter. They recognise the significance of the relationship of the organisation with its external environment and suggest developing a wider range of variables within the predictive model that may successfully influence the operation of the organisation. This brings with it requirements for additional ways of measuring and assessing these variables, which extend beyond Anthony's initial scope of the MA in terms of assessing performance.

2.3.4 Simons (1995) Control Framework

Simons (1995) developed a framework which in his view describes the fundamental dimensions of an effective control function. Simons attempted to find the balance whereby effective control is exercised without sacrificing flexibility, innovation and creativity. He described the tools necessary to reconcile this potential conflict in today's environment as being the four levers of control:

Lever 1- Diagnostics Control Systems
Diagnostic control systems allow managers to track the progress of individuals, departments or units by measuring their performance against pre-defined targets. Feedback of performance is compared with targets and the resulting fine-tuning of inputs is intended to produce outputs that are closer to the initial targets. Diagnostic control systems represent the narrowest lever of control, the main aim of which is to lesson the managers' burden of constant monitoring. It is assumed that once people have targets, and their rewards are based on meeting those targets, people will work responsibly towards achieving them, managers need only periodically review results. Simons himself points out, however, that this lever of control does possess inherent

weaknesses. Empowered employees, under pressure to meet targets, may manipulate processes and outputs so that managers are reviewing distorted feedback. Such control failures often result in adverse consequences for the organisation. This is why diagnostic control systems, in themselves, are not sufficient to effectively control an organisation.

Lever 2- Belief Systems

Belief systems are an expression of the values and direction that managers want employees to embrace. They instil in an employee the core aspiration of the organisation in terms of the value it aspires to create and the relationships it aspires to build. They encourage employees to move in the same strategic direction as the rest of the company. Belief systems should re-enforce diagnostic control systems by encouraging people to achieve organisational goals by proper and appropriate means. Belief systems encourage the empowerment of people within the organisation through the communication of a clear mission and the encouragement of creative contribution and effective input. However, Simons (1995) believes that this lever of control must be counter-acted by clear rules, boundaries and charters of behaviour. This introduces the notion of boundary systems.

Lever 3- Boundary Systems

This involves the setting of limits and rules which employees are discouraged from exceeding or breaking. Simons describes boundary systems as 'organisational brakes'. Boundary systems are stated in negative terms or as minimum standards. This clear statement of 'off limit activities' is described by Simons as a necessary control of empowered employees who are 'fuelled by inspiration and performance rewards'. Boundary systems act as 'safety catch' on diagnostic and belief systems. Simons describes belief systems and boundary systems as the yin and yang of organisational control. In his view, the warm, positive, inspirational beliefs are controlled by the dark, cold constraints of the boundary systems.

Lever 4- Interactive Control Systems

These are formal systems designed to share emerging information. These systems involve consistent monitoring by senior management of the DM and activities of subordinates. Interactive control systems focus on constantly changing information

that senior management have identified as potentially strategic. This information demands frequent and regular attention from all levels of management. The resulting data are best interpreted in face-to-face meetings between all parties concerned and such information should act as a catalyst for debate about underlying plans and assumptions.

2.3.5 A Comparison of the Control Frameworks

The control frameworks described above represent a progression of thought with regard to organisational control. Anthony's (1965) views of control focus on what he refers to as management control which is described as the effective and efficient allocation of organisational resources. This analysis virtually ignores the processes of strategic planning and operational control. Otley and Berry (1980) present a more inclusive framework which embrace the complexities of strategic planning and day-to-day operational control. However, this framework is limited in its consideration of the difficulties inherent in reconciling the various groups within the organisation. It also fails to appreciate the challenges of motivating and communicating with various individuals to do the necessary job. Simons (1995) recognises the importance of the individuals operating within the organisational control systems. Belief systems re-enforce diagnostic control systems by instilling the organisations aspirations and values into the individual while interactive control systems encourage managers to listen to employees and to learn from their experiences.

The three frameworks discussed certainly share common elements. All three ultimately revolve around goal attainment as well as a comparison of actual performance with some pre-determined target. Simons (1995) diagnostic control system is consistent with Otley and Berry (1980). Both involve measuring progress against a pre-defined target, using a predictive control model to anticipate the outcome of alternatives actions and then fine tuning the inputs and processes, all in the hope of producing outputs closer to original targets. Simons (1995) boundary systems is consistent with the hierarchical approach to control that both Anthony (1965) and Otley and Berry (1980) describe.

However they each have a different interpretation of how management control systems actually contribute to organisational control. Simons (1995) encourages control in a much more enlightened way. He describes a more 'enabling' type of control in which employees are helped by the organisation to contribute to the control process. Simons (1995) interpretation of control is much more compatible with a business partner than with a traditional MA. This is discussed in greater detail in section 3.4.1.

2.4 AN ANALYSIS OF DECISION MAKING

Belkaoui (1980) notes that using different conceptual frameworks for examining decisions provides a basis for viewing the different types of decisions faced by managers, the different types of information required to support these decisions, and the role of the MA in providing these different types of information.

2.4.1 Anthony's (1965) Framework

Although introduced by Anthony (1965) to describe different types of managerial activities and in turn different types of control activities, Anthony's distinction between operational control, management control and strategic planning also represents a good basis on which to analyse DM. Operational control is associated with the process of getting specific tasks done. DM in this arena is mainly concerned with activities occurring within a short time frame. Potential outcomes can often be expressed in terms of a mathematical model. Management control is associated with effective and efficient resource allocation. DM in this arena is subject to greater subjective interpretation and personal interaction than operational DM, and is more difficult to encapsulate within the mathematical models used for operational DM. Strategic planning is the process of deciding on the objectives of the company and the best way of achieving these objectives. DM within this category requires an awareness of the relationship between the organisation and its external environment. The time frame associated with such decisions are also more long ranging and future oriented than either of the other two levels of DM.

2.4.2 Simon's (1960) Decision Making Framework

Simon (1960) distinguishes between structured and unstructured decisions. Structured decisions are those which are repetitive, routine and subject to a definite procedure each time the decision arises. They are generally solved by analytical techniques. Unstructured decisions are novel, unpredictable, consequential, and rely far more on human intuition and judgement. They are so individually complex or of such importance that a solution for them must be tailor made. Traditional Management Accounting Systems (MAS) are designed in such a way as to provide significant assistance in structured DM but their usefulness in terms of unstructured decision making is questionable, (Belkaoui, 1980).

2.4.3 Gorry-Scott Morton's Decision Making Framework

Gorry and Scott Morton (1971) provided a useful combination of both Anthony's and Simon's typologies by developing a matrix which classified decisions from structured to unstructured and from operational to strategic. Belkaoui (1980) expanded this matrix to incorporate examples of types of DM falling within each category. This is illustrated in figure 2. This model illustrates managers' differing information requirements, as well as the distinctive methods of data collection and maintenance which would be required, within each of the three dimensions. It also highlights the contrasting frequency of decisions, as well as the different relative magnitude of decisions in each case. Finally, it is clear that the decision-making process and the level of analytical sophistication will vary across the three categories (Belkaoui, 1980). Clearly, management accountants must recognise these differences and reflect them in their information provision, if they are to provide adequate decision support to managers within each category.

So far, chapter 2 has described the key theoretical frameworks underlying both the control and DM functions of management accounting. The role of the MA in the context of these frameworks is discussed in detail in chapter 3. The remaining parts of chapter 2 deal firstly with the tools and techniques available to the MA in carrying out this role. Finally, given that information is the key deliverable of the management

accounting function, it goes on to introduce some of the properties of information which may affect the usefulness of information as perceived by the user.

Figure 2: Expanded Gorry-Scott Morton Framework, (Belkaoui, 1980)

	Operational Control and Decision-making	**Management Control and Decision-making**	**Strategic Planning and Decision-making**
Structured	Accounts receivable	Budgeting	Tanker fleet mix
	Order entry	Short-term forecasting	Warehouse and plant location
	Inventory reordering	Engineered costs	
		Linear programming	
Semi-Structured	Inventory control	Variance analysis	Mergers and acquisitions
	Production scheduling	Overall budget	Capital acquisition analysis
	Bond trading	Budget preparation	New product planning
	Cash management	Hiring personnel	R and D planning
Unstructured	PERT Cost Systems	Sales and production	

2.5 MANAGEMENT ACCOUNTING TECHNIQUES

Sections 2.3 and 2.4 introduced the theoretical frameworks underlying control and DM as presented in the literature. These theoretical frameworks may be applied using a range of management accounting tools and techniques. It was suggested in the literature of the 1980s that 'traditional' management accounting techniques had lost relevance in light of the changing business environment (Johnson and Kaplan, 1987). In response, several 'new' techniques were presented which were intended to restore the relevance of management accounting.

Figure 3 lists a selection of the 'traditional' and 'new' techniques most prominently featured in the literature. This classification is based primarily on the descriptions of these techniques in Drury (2004). It is worth noting that not all techniques may be neatly classified within either 'control' or 'decision-making'. For instance, the organisational consequences of ABC are not just used for DM purposes (Bhimani an Pigott, 1992) and the implementation of Strategic Management Accounting (SMA) certainly extends beyond the organisations planning and control system throughout the entire management accounting system, often incorporating 'decision-making' techniques such as ABC, lifecycle costing and customer profitability analysis (Drury, 2004).

Figure 3: _Management Accounting Techniques_

	Traditional Techniques	**New Techniques**
For Control Purposes	▪ Budgets ▪ Standard costing ▪ Variance analysis ▪ Return on investment (ROI)	▪ Strategic Management Accounting ▪ Balanced scorecard ▪ Benchmarking ▪ Quality cost analysis ▪ Non financial performance measures
For DM Purposes	▪ Volume based absorption ▪ Marginal costing ▪ Discounted cash-flow (DCF) ▪ Cost plus pricing	▪ ABC ▪ Target costing ▪ Lifecycle costing ▪ Customer profitability analysis

The 'traditional' techniques produce information which is largely financial in nature, is concerned with internal, operational activities and is generally historically focused. The 'new' techniques are intended to produce more qualitative, non-financial information which is externally focused, strategic in nature and future orientated (Drury, 2004).

2.5.1 Control Techniques

Traditional Techniques

Budgeting, in its simplest form, shows plans for an organisation for a forthcoming period in financial terms and allows actual results to be compared against a pre-determined standard (Drury, 2004).

Standard costing is appropriate in an organisation consisting of common or repetitive operations such as manufacturing organisations. Standard costs are pre-determined costs or target costs, which should be incurred under efficient operating conditions. Comparing total actual costs with total standard costs for an operation or a responsibility centre is the first step in budgetary control (Drury, 2004).

Variance analysis involves comparing actual costs with standard costs for a responsibility centre in order to ascertain the variance which can then be broken down in terms of price and quantity (Horngren, Foster and Datar, 2006).

Return on Investment (ROI) is used largely in divisionally structured organisations. ROI expresses divisional profits as a percentage of assets employed in the division. It essentially measures the rate of return which an organisation or division is earning. If a manager is to be considered successful in running his division, he must generate an ROI which exceeds the alternative market return for capital (Drury, 2004).

New Techniques

The new control techniques generate less financially driven information and are more externally focused than the traditional techniques.

SMA is an all-encompassing term which describes the provision of information to managers to assist in the formulation and implementation of the organisations strategy. SMA is difficult to define and may mean different things to different organisations but ultimately it involves an extension of the internal focus of traditional management accounting to include external, customer driven information;

30

it focuses on gaining competitive advantage by decreasing costs and exploiting competitive advantage throughout the entire value chain, and it links the strategic positioning of the firm with it's management accounting information system (Drury, 2004).

The balanced scorecard recognises the relationship between financial information and non-financial information. It allows managers to examine a company's performance based on four alternative perspectives of the organisations incorporating both financial and non-financial measures. These are the customer perspective, the internal perspective, the innovation and learning perspective and the financial perspective. It is designed to translate a company's strategic objectives into a coherent set of performance measures (Kaplan and Norton, 1992).

Benchmarking requires companies to continually measure themselves against comparable best performing organisations in an effort to drive continuous improvement by constantly striving to beat superior competitors (Drury, 2004).

Quality cost analysis is the detailed analysis of costs associated with the prevention, identification, repair and rectification of poor quality in an organisation as well as the opportunity cost of lost production time and sales arising out of poor quality production (Blocher, Chen and Lin, 1999).

'Non-financial performance measures' is an all-encapsulating term to refer to the growing desire by management to use non-financial data for management purposes. Many of the issues now considered critical in modern firms such as quality, brand awareness and customer perceptions cannot be measured in monetary terms and many factors which affect traditional measures, such as ROI cannot be captured in monetary terms. This places a huge requirement on the MA to provide non-financial performance measures (Drury, 2004).

2.5.2 DM Techniques

Traditional Techniques

Product costing is required firstly to allocate manufacturing costs between costs of sales and inventories for financial reporting purposes. Secondly, product costing is required for DM purposes so managers can decide which products are profitable and which are not. Traditionally, product costs generated for external reporting purposes have been used for DM. This is the basis upon which volume based absorption costing and marginal costing have been traditionally used. Volume based absorption costing involves allocating all costs, including fixed costs, to products based on some volume based measure such as labour hour or production volume. Marginal costs assign only variable costs to products, again, based on a similar volume based measure (Drury, 2004).

Discounted Cash-flow (DCF) involves ascertaining the present values of future cash flows so that a more realistic long term decision can be made which incorporates the declining values of future returns (Drury, 2004).

Cost plus pricing estimates the unit cost of a product and then simply adds a mark-up to provide a reasonable level of profit (Drury, 2004).

New Techniques

Cooper and Kaplan (1988) developed a more decision-relevant technique for allocating overhead to products and computing costs. ABC examines the activities driving costs and allocates costs to products based on the proportion of these activities which the product utilises in production.

Target costing originated in Japan and involves targets being set by external factors. A target price is set which is expected will allow the company sufficient market share. A desired profit margin is then deducted to determine the target maximum allowable product cost (Horngren *et al*, 2006).

32

Lifecycle costing is particularly pertinent in advanced manufacturing environments where significant costs are incurred in researching and designing new products and processes. It fundamentally involves MAS carefully tracking and monitoring costs and commitments at the early stages of a product's life cycle and providing information which will allow management to make effective decisions throughout the products lifecycle (Horngren *et al*, 2006).

Customer profitability analysis highlights which customers should be emphasised or de-emphasised. It involves using ABC type techniques in order to ascertain which customers are consuming the most resources and ultimately which customers are loss making.

These new management accounting practices are intended to provide more useful information to managers than the traditional techniques. Techniques such as benchmarking, non-financial performance measures and customer profitability analysis encourage the production of information which is broader in scope and less financially orientated than the information generated with traditional techniques such as variance analysis and ROI. The literature suggests that managers in recent years have developed more specific expectations with regard to the quality of the information they require (Chenhall and Morris, 1986; Bruns and McKinnon, 1993; Mia and Chenhall, 1994; Mendoza and Bescos, 2001). As will be discussed below, the timing, relevance, level of aggregation and even scope of information often determines how useful it will be to managers.

2.6 THE ROLE OF INFORMATION

A consistent feature of the above discussion of control and DM is the importance of high quality information. Regardless of theoretical frameworks, tools, techniques or methodologies, ultimately, the function of the management accounting process is to provide the requisite information to managers for control and DM (Belkaoui, 1980). The type of information provided and the way in which it is provided often determines the role played by management accounting and the effectiveness with which that role is carried out.

In focusing on information, it is important to note that one's opinion on a piece of information or the product of an information system depends largely on the perspective from which it is viewed. Those who prepare information are generally satisfied once an information system works. This is described as achieving technical validity (Schultz and Slevin, 1975). Those who use this information are generally only satisfied if the information helps them to do their job better, thereby achieving organisational validity (Dickson and Powers, 1979). Where the preparers identify strongly with the users requirements, both are more likely to share similar views on system effectiveness (Dickson and Powers, 1979). Pierce and O'Dea (2003) reported that MAs, as preparers of management accounting information, attached more importance to technical validity often to the detriment of relevance or organisational validity. Effective information, therefore, is that which achieves organisational validity and such information must be evaluated in terms of its importance to users (Lucas, 1975).

Having established that the effectiveness of information for users is vitally important in assessing the value of information, it is necessary to consider what factors lead a user to regard a piece of information as useful. As Belkaoui (1980) points out:

> ... management accounting information should have certain properties so that benefits are achievable (pp.14).

These properties are the distinguishing characteristics or traits of information which render it more or less useful to management in managing their units. Much management accounting research has focused quite specifically on characteristics of information. A review of this literature provides a framework to help assess managers' preferences in terms of management accounting information. The characteristics listed in figure 4 (which are in no particular order) have been derived from this literature:

Figure 4: *Information Characteristics Derived from the Literature*

	Characteristic	Source
1	Timeliness	Belkaoui (1980) Chenhall and Morris (1986) Bruns and McKinnon (1993) Pierce and O'Dea (2003) Van der Veeken and Wouters (2002)
2	Relevance	Belkaoui (1980) Bruns and McKinnon (1993) Pierce and O'Dea (2003)
3	Consistency	Jonsson and Gronland (1988)
4	Accuracy	Belkaoui (1980) Pierce and O'Dea (2003) Van der Veeken and Wouters (2002)
5	Aggregation	Chenhall and Morris (1986) Bruns and McKinnon (1993) Mendoza and Bescos (2001)
6	Flexibility and Adaptability	Belkaoui (1980) Mendoza and Bescos (2001)
7	Scope	Chenhall and Morris (1986) Mia and Chenhall (1994)
8	Reliability	Yamey (1982) Bougen (1994) Friedman and Lyne (1997)

Timeliness

Timeliness refers to the age of information. It can refer to both interval and delay. Interval is the period of time lapsing between two successive reports. Delay is the time necessary to process the data, prepare the reports and distribute them, in other words, the lag between the action, and the reporting of the action (Belkaoui, 1980). Timeliness of information influences how quickly a manager responds to events and in conditions of uncertainty where rapid response to change is critical, timeliness becomes a key characteristic of useful information (Chenhall and Morris, 1986). Often accounting recognition, measurement criteria and the spurious pursuit of accuracy delay the recognition and reporting of issues and events until all

uncertainties have been resolved (Van der Veeken and Wouters, 2002). The single most important finding emerging from Bruns and McKinnon (1993) is that the desire for timely information is more likely than any other factor to drive managers to alternative sources for their information requirements. Findings from Pierce and O'Dea (2003) corroborated this in that most managers identified timeliness as a key area where improvement was needed.

Relevance

Relevant information is described as information that bears upon the decision being made. An important point with regard to relevance is that it depends on the particular user receiving the information and on his or her particular decision (Belkaoui, 1980). Bruns and McKinnon (1993) describe management accounting information as taking place in a vacuum lacking any tangible link between its function and objective. They conclude that MAs must try harder to provide information that informs managers of the link between their decisions, their actions and the achievement of their objectives. Pierce and O'Dea (2003) report evidence of a user-preparer expectation gap. Their findings show that in many cases, MAs focus on technical validity and produce information which is simply not relevant to managers who need more organisationally valid information.

Consistency

Consistency refers to the organisation's adoption of the same rules and procedures over a period of time, which will ultimately lead to comparability of results over different time periods. This characteristic would be considered more useful in financial or quantitative information than it would in qualitative information. Jonsson and Gronlund (1988) reported that financial or quantitative information becomes more important as the time horizon lengthens. Comparative sets of results allow managers to build a mental model of the financial implications of their actions. Consistency becomes essential in such circumstances.

Accuracy

Users are more likely to believe in the information if they know it to be accurate (Belkaoui, 1980). The perception of accuracy is not always positive though. While it is positively associated with greater perceived reliability (Van der Veeken and Wouters, 2002) and consequently increased acceptance of information, all too often it is relentlessly pursued to the detriment of timeliness and relevance (Pierce and O'Dea, 2003). Where possible, parameters should be set indicating the acceptable level of accuracy, or more importantly, the tolerable margin for error (Belkaoui, 1980). Alternatively, the MA needs to understand the purpose of the information and to use their judgement to estimate the level of accuracy required to ensure that the effectiveness of the information is not compromised.

Aggregation

Aggregation refers to reducing the volume of data by presenting it in a synopsised or standardised format. Information may be aggregated around periods of time, responsibility centres, functional areas or projects, or it may be disseminated after being processed within a formal decision model (Chenhall and Morris, 1986). Numerous techniques, models, methodologies and methods have been discussed in the management accounting literature which supposedly provide more sophisticated methods of analysing costs and profits and which may alter the usefulness of accounting information (Bruns and McKinnon, 1993). Mendoza and Bescos (2001) report that 90% of managers are faced with redundant information. As a result, some of the information presented to them is either ignored or reviewed in brief. Managers require information that takes them directly to the key issues. However, there is a danger that while increased aggregation of information may reduce information overload, it may also lead to a loss of identifiability of the information so that users lose its context. This presents a very important challenge to MAs to judge the level of aggregation appropriate in each specific circumstance.

Flexibility and Adaptability

Flexibility refers to the degree to which data may be used in several types of information or reports. It is often a function of the level of aggregation of the data. Adaptability is the extent to which information may be tailored or harmonised to specific needs. Again, this will often be influenced by the extent to which the data is aggregated (Belkaoui, 1980). As Mendoza and Bescos (2001) point out, the difficulty is in finding a happy medium between excessive standardisation of information in such a way as to make it less relevant to individual managers, and an overly individualised and flexible system which is inefficient.

Scope

Scope refers to the dimension of focus, quantification and time horizon associated with information. More narrowly scoped information focuses on events within the organisation, is quantified in monetary terms and relates to historical data. (Chenhall and Morris, 1986). In contrast, broad scope information is more externally focused and is generally non-financial and future orientated (Mia and Chenhall, 1994). There is evidence that marketing managers are exposed to greater levels of uncertainty than production managers and find broad scoped information to be more beneficial (Mia and Chenhall, 1994). This indicates that in conditions of greater uncertainty managers prefer broad scoped information. As indicated in section 3.2, a major feature of many companies' operating environments is the unprecedented levels of uncertainty. This suggests that many managers, regardless of their function, will become increasingly reliant on broad scoped information.

Reliability

The Oxford English Dictionary associates reliability with words such as trust, confidence and dependability. Reliable information is that which a manager knows to be a correct representation of the facts. Accountants have traditionally been associated with reliability and much of the literature has reported that this perception has benefited the accountant (Yamey, 1982; Bougen, 1994). Reliable information is sometimes placed at odds with scope and flexibility (Friedman and Lyne 1997),

suggesting that managers perceive the more numerical, financially driven information produced by the MA to be more reliable.

2.6.1 Control Information and DM Information Compared

The literature did not focus in detail on the extent to which these characteristics may be considered as important for control as for DM, and vice versa. There are obvious conflicts between the two roles of the MA which are discussed in greater detail in section 3.7.9. These conflicts also impact the usefulness of management accounting information. Sathe (1982) describes the necessity to balance the integrity of information which is required for compliance and control, with the effectiveness of that information for DM purposes. Bruns and McKinnon (1993) suggest that some types of information may be more relevant at different times depending on the task being undertaken by managers. Mendoza and Bescos (2001) maintain that DM information must be timely, sufficiently detailed, reliable and exhaustive. In their view formalized MAS, traditionally concerned with management control produce information which is generally focused on the past, subject to delay and is overly financial in nature. They consider it insufficient to produce information which merely counts the consumption of resources, it must contribute to strategy deployment (Mendoza and Bescos, 2001). Van der Veeken and Wouters (2002) found that different management levels required different types of information. Higher-level managers, focusing on cost control and containment, required output oriented information such as cost versus budget. Lower level managers, focusing on making the day-to-day decisions required to get the job done, were less reliant on accounting based measures and required real time, units based information. In other words, traditional management accounting information enabled more accurate control but was less useful in a DM context. Gordon and Narayanan (1984) suggested that broad scoped information was more valuable to those managers engaged in DM while Pierce and O'Dea (2003) reported a general willingness by managers to sacrifice accuracy for more timeliness when engaged in DM.

While a sample of the information related literature makes reference to the varying usefulness of the different information characteristics in control versus DM situations, none of these have focused on this in any great detail. This gap in the

literature forms the basis for the study's first research question, described in section 4.2.2. RQ1 examines the importance of the specified characteristics of information for control and DM purposes.

2.7 SUMMARY AND CONCLUSIONS

Chapter 2 presented the theoretical background of management accounting as a discipline. The key control frameworks are presented, each representing a progression of thought with regard to organisational control. These frameworks are compared and contrasted in section 2.3.5 ultimately concluding that Simons (1995) encourages a more evolved and 'enabling' type of control in contrast with Anthony (1965) who describes control in more regulatory terms.

The contribution of management accounting to DM is then discussed. A series of frameworks are presented which contextualise managerial DM and suggests how the MA contributes to this process.

This is succeeded by an introduction to some of the tools and techniques presented in the literature which may be used to apply the above mentioned frameworks. While the frameworks represent a progression of thought with regard to control and DM, so too do the techniques which are categorised into 'traditional' and 'new' techniques.

The discussion surrounding these tools and techniques highlights the importance of information as the key deliverable of the management accounting process. A list of information characteristics derived from the literature is presented which may be used as a basis on which to assess the information requirements of managers, as well as the ability of the MA to meet these information requirements. Having ascertained in section 2.2.4 that the MA's role consists of two, often conflicting, elements, that of contributor to control and contributor to DM, it is not clear from the literature if the type of information required by managers for control differs significantly from the type of information required for DM. If a difference does exist between the type of information required for each of these purposes, this could have a serious impact on the extent to which the MA can satisfactorily provide both types of information, which may in turn, determine the role played by the MA in the organisation. Section

2.6.1 describes how this has been referred to in some papers (Bruns and McKinnon, 1993; Mendoza and Bescos, 2001; Van der Veeken and Wouters, 2002) though it has not been pursued at length. Gordon and Narayanan (1984) found that managers engaging in decision-making prefer broad scoped information and Pierce and O'Dea (2003) reported that managers engaging in decision-making favour increased timeliness. None of these studies however focused largely on these conflicts and it is emerging from he literature that these conflicts may be having a significant impact on the management accountants' pursuit of a meaningful role in a contemporary environment. This represents a gap in the literature which forms the basis of research question 1, which is set out in section 4.2.2

Having described the function of management accounting as traditionally presented in the literature, chapter 3 will examine how this function has changed according to the contemporary literature and how these changes may be impacting the MA's role.

CHAPTER 3

The Contemporary Role of the Management Accountant

3.1 INTRODUCTION

Chapter 2 focused on the theoretical literature underlying the traditional function of management accounting. The purpose of chapter 3 is to provide a review of the literature examining the changing function of management accounting and, more importantly, the changing role of the MA as a result. Section 3.2 analyses the changes occurring in the business environment over the past two decades. Section 3.3 examines the impact of these changes on the control function. Section 3.4 describes a contemporary control framework as presented by Otley (1999) which recognises the changes detailed in preceding sections. Section 3.5 examines the impact of change on the MA's contribution to DM referring to the frameworks discussed in chapter 2 and applying them to the current environment. Section 3.6 examines the contingency theory of management accounting. Section 3.7 provides an overview of the wealth of research which took place in the 1990's addressing the actual role played by the MA, concluding with a discussion surrounding the hybrid accountant as presented in the literature, together with a discussion of the conflicts inherent in such a role. Finally section 3.8 provides a list of the key SACs which feature prominently in the literature in discussions surrounding the MA. The literature suggests that the MA shows a natural adeptness for some of these SACs, while performing particularly poorly in relation to others.

3.2 THE EVOLVING BUSINESS ENVIRONMENT

The speed with which the business environment has developed and evolved in recent years is comparable with the Industrial Revolution of the 19th century in terms of its pace of change and shifting focus (Otley, 1994). This change raises several issues with regard to the MA's role. It questions the effectiveness of the MA in terms of the traditional control or attention directing role. It addresses the suitability of the MA in terms of the DM or problem solving role. Finally, it highlights the shifting focus of managerial interest and the onus on MAs to keep abreast of these shifting interests.

3.2.1 An Analysis of Change

The changes occurring in the business environment in the past decade have occurred at various different levels. In the wider context, various economic factors have been important in motivating change. Likewise, numerous technological factors have had a significant impact, and, from a more organisationally specific viewpoint, altering organisational structures have played an instrumental part in effecting change in the business environment (Burns *et al*, 1999). Each of these factors is discussed below.

3.2.2 Economic Changes

> The expectations of customers have undergone massive change (Otley, 1994, pp. 291).

As Otley (1994) points out, technological developments have increased the quantities of products and services available and have affected their means of production and delivery. In the past decade and a half, this has resulted in the opening up of new markets leading to rapid globalisation and resulting in increased competition (Burns *et al*, 1999). This growth in competition has had a knock-on effect on the way in which many organisations operate. An organisation's survival has become largely dependant on reducing costs dramatically across all areas of the value chain (Cooper, 1996) and increased competitive forces mean that the managerial emphasis of control must shift away from internal processes towards customers and markets (Burns *et al*, 1999).

3.2.3 Technological Factors

Technological factors refer to both information technology (IT) developments and developments in the technologies of production and logistics. Burns and Yazdifar (2001) reported from their survey of 279 CIMA members that 73% of respondents believed that IT was the most important driver of change in the tasks and roles of MAs in the preceding five years. Developments in software, database technology, integrated operations packages and communications technology mean that information, and particularly financial information, is becoming more dispersed around the entire organisation. Such technology, combined with increasingly

44

widespread computer competence among the majority of organisational members, means that information previously within the domain of the MA is far more accessible to managers (Burns *et al*, 1996).

Developments in production technologies have resulted in significant amounts of labour being replaced by machinery. Consequently organisational costing structures have altered dramatically in the past two decades. In many organisations fixed production costs are replacing labour costs (Drury *et al*, 1993). Technological developments in logistics and communications, having facilitated the global marketplace described in 3.2.2, have resulted in most low technology, low skilled, mass production activities being carried out in developing countries where labour is a particularly cheap resource (Otley, 1994).

3.2.4 Organisational Structure

Organisational re-structuring has been identified as the second most important driver of change in the role of the MA in the past five years (Burns and Yazdifar, 2001). Economic factors have led to increased competition, leading to a greater emphasis on cost control, thereby forcing companies to focus on core competencies and critical activities. Technological factors have seen labour being replaced by capital, with more machines and computers taking over the work of humans. Organisations are downsizing, outsourcing and delayering (Burns *et al*, 1999). This is resulting in smaller business units, focusing on a narrow range of core issues. There are fewer middle managers, yet there is an expansion in the range of their responsibilities as the split between operational control, managerial control and strategic planning blurs (Otley, 1994).

3.3 THE IMPACT OF CHANGE ON THE MANAGEMENT ACCOUNTANT'S CONTROL FUNCTION

Organisations are undoubtedly subject to far greater levels of uncertainty than was the case two decades ago. All of the factors identified above are contributing to an increasingly unpredictable environment (Otley, 1994) and, as the literature reveals below, this is having repercussions on the MA's traditional control function.

3.3.1 The Decentralisation of the MA's Function

Increased competition has placed greater challenges on organisations with regard to cost control. Cost control has become the responsibility of everybody within the firm (Cooper, 1995). Developments in IT are giving employees the tools to control and manage their own costs. In this way, they are performing tasks previously performed by the MA (Burns *et al*, 1999). The MA's traditional control function is becoming more and more distributed in many organisations. Cooper (1995) asserted that this was resulting in:

> ... fewer MAs within the company but a wider use of management accounting information (pp.7).

3.3.2 Employee Empowerment

Survival in the ever-changing business environment is becoming a greater challenge for most organisations. In response, organisations must devote more of their resources to adapting their operations to changing circumstances. Better adaptation may be achieved through increased planning. Planning requires the accurate prediction of the future consequences of actions which is proving increasingly difficult given the rate of environmental change. Another effective way of improving adaptation is by developing the flexibility to respond quickly to the consequences of change as soon as they become apparent. Organisations will not achieve the necessary levels of flexibility if the mechanisms for organisational adaptation are left to just senior management. Management under conditions of uncertainty and continual change therefore requires the active involvement of more members of the organisation, specifically those people that traditionally 'report into' management. This phenomenon of employee empowerment changes the parameters of the control process. Control systems must now incorporate greater levels of employee self-control and group accountability. Performance appraisal and accountability remain the key tools for effective management control. However such accountability must now become less hierarchical and based more on the development of mutual accountabilities between different organisational participants (Otley, 1994).

3.3.3 Altering Managerial Needs

Anthony's (1965) distinction between operational control, management control and strategic planning is becoming increasingly blurred. Effective management control requires managers to continually reformulate strategies to match the evolving external environment, to continually monitor operational processes and ensure corrective actions are implemented when necessary. Management control clearly incorporates both strategic planning and operational control, the responsibility for all of which is now being pushed down to lower levels of management (Otley, 1994). As managerial activities cascade down traditional managerial structures, management control information requirements of all types are no longer restricted to just senior levels of management (Ezzamel *et al*, 1994).

3.4. A Contemporary Control Framework

In response to the changing environment and the implications thereof, Otley (1999) identified a need for a framework which progressed from *measuring* organisational performance to *managing* organisational performance. He argued that it is now necessary to pay more attention to the neglected elements of strategy and operations. He described an organisation as 'performing well' if it was successfully attaining its objectives, i.e. effectively implementing the appropriately chosen strategy. He argued that if 'successful strategy implementation' is the measure by which one is to assess the performance of the organisation, this measure must be built in as a key element of the control system. Otley's (1999) framework is based on this premise.

This framework revolves around the answers to five key questions. These questions need to be asked of an organisation on an ongoing basis, as the answers will continuously change in response to the changing environment in which the organisation exists. The questions are as follows:

1. What are the key objectives central to the organisation's future success and how does it evaluate its achievement of these objectives?

2. What strategies and plans has the organisation adopted and what processes and activities will be required in order to implement them? How does it assess and measure the performance of these activities?

3. What level of performance does the organisation need to achieve and how does it go about setting appropriate performance targets?

4. What rewards will managers gain by achieving these targets and what penalties will they suffer by failing to achieve them?

5. What information flows are necessary to ensure that the organisation is continuously learning and adapting its current behaviour in light of its experiences?

Question 1 incorporates the contingent principle that a control system will differ depending on the core objectives of the organisation. Question 2 operationalises the organisation's objectives and sets measures against which actual performance can be assessed. Question 3 stems from traditional management control theory and concerns the optimum use of resources in order to achieve desired objectives. Questions 1 to 3 form the structure of a typical budgetary control system in which objectives are set, plans are made and acceptable performance targets are set. However, Otley's (1999) questions are not restricted to accounting measures and procedures. Non-financial and qualitative issues must be given as much if not more consideration than financial and accounting issues. This represents the core development of Otley's 1999 framework over any previous theories.

Question 4 addresses the motivation and incentives of employees to achieve set objectives and the issues surrounding measurement of their performance with regard to achieving these objectives. This addresses the accountability and governance structures within the organisation. Question 5 addresses the importance of information in control systems and the optimum use of this information so as to facilitate organisational learning. Information must be used in order to continually revisit objectives and plans so as to take corrective actions if necessary. In order for information to be useful in this regard it must be the right information, at the right time, in the right quantities and it must be made available to the right people. Previously seen to be within the remit of Management Information Systems

specialists, Otley (1999) asserts that this issue needs to be reviewed in the context of organisation learning, employee empowerment and emergent strategy.

Otley (1999) asserts that this framework should be used as a checklist against which an organisation's management control practices may be assessed. Consistent use of the framework will give managers a complete picture of the organisation's management control system in the context of its current environment. Weaknesses may be identified and improvements may be made as a part of the iterative process of analysis. Widening the perspective of analysis of the management control system in this way should result in more effective strategy implementation and more controlled management of performance.

3.4.1 Further Comparison of the Control Frameworks

Similarities can be identified between Otley's (1999) control framework above and Simons (1995) control framework discussed in chapter 2. These similarities relate largely to the increased acknowledgement of the role of employees within the control system.

As described at section 3.3.2 above, organisational survival is dependant upon the organisation effectively adapting to its constantly changing circumstances. The level of flexibility required for such organisational adaptation can only be achieved by involving as many employees as possible in the process. This necessitates unprecedented levels of employee empowerment which inevitably alters the nature of the organisation's control systems. Performance appraisal and accountability must become less hierarchical and more subject to mutual development by employees, (Otley, 1994). This is referred to in Otley's (1999) framework in which question four asks what rewards employees will gain by achieving targets? This addresses the motivation of employees and raises the issue of accountability and governance within a modern control system. Simons (1995) had introduced this concept in his second lever of control, belief systems, discussed at section 2.3.4. Belief systems involve encouraging employees to move in the same strategic direction as the company. They promote empowerment through the communication of a clear mission and the encouragement of effective and creative input.

Otley's (1999) final question related to the information flows necessary to ensure that the organisation is continually learning and adapting. Similarly, Simons (1995) fourth lever of control focused on the requirement for formal systems of information flow designed to share emerging information in order to facilitate ongoing organisational learning.

Both frameworks recognise the growing empowerment of employees and the necessity to find new ways of controlling these increasingly empowered employees. Both frameworks accept that accountability and performance appraisal remain the key tools of control but they must now be applied in a mutually acceptable, all-inclusive manner, which motivates employees to strive toward organisational objectives.

3.5 DECISION MAKING IN TODAY'S BUSINESS ENVIRONMENT

Chapter 2 described DM in terms of structured decisions versus unstructured decisions. It also differentiated between decisions made within the context of strategic planning, management control and operational control. Structured decisions are those that have been faced by the organisation on numerous occasions in the past and a definite procedure has been identified as to how to deal with them (Belkaoui, 1980). Such decisions involve a high degree of predictability. The business environment has become inherently less predictable (Otley, 1994) and so the decisions facing managers today are becoming increasingly unstructured in nature.

Similarly, the distinction between operational management, middle management and strategic management is blurring. A given manager will frequently face decisions in all of these three arenas (Otley, 1994; Ezzamel *et al*, 1994). The requirement for organisational adaptability and flexibility means that change management and environmental awareness is no longer restricted to senior managers. Management in conditions of uncertainty requires the active involvement of everybody in the organisation (Otley, 1994). This widens the MA's target audience.

3.6 A CONTINGENT APPROACH TO MANAGEMENT ACCOUNTING

Having introduced the effect the changing environment has had on the MA's contribution to control and DM, it is clear that contextual factors originating in the business environment, in the organisation or within the manager/MA relationship will help to determine the MA's role as an information provider. This introduces the concept of contingency theory to the study of the MA's role. Contingency theories surfaced in organisational theory literature in the mid-1960s but did not appear in the management accounting literature until the mid-1970s. The contingent approach to management accounting is based on the premise that:

> ... there is no universally appropriate accounting system which applies equally to all organisations in all circumstances, the choice of appropriate accounting systems depends on the specific circumstances in which an organisation finds itself (Otley, 1980, pp.84).

There is a body of literature studying the effectiveness of MAS in light of structure, technology, strategy, uncertainty, environment and culture. Horngren (1972) recognises the interdependence between MAS design and organisational structure. Dermer (1977) describes the design of control systems as being necessarily 'situationally specific'. Piper (1978) and Daft and MacIntosh (1978) cite technological development as a key contingent variable affecting the design of MAS. Hopwood (1972) and Otley (1978) assert that organisational structure has an important effect upon the way in which a management accounting system functions. Khandwalla (1972) finds that different levels of competition have different impacts on the use of accounting controls in an organisation. The findings of Otley (1978) suggest that the competitive intensity of the environment in which organisations operates strongly affects the way in which managers use budgetary information and Chenhall and Morris (1986) report on the effects of perceived uncertainty on information systems design.

In the 1980s, strategy began to emerge as a key contingent variable upon which management control systems should be based (Merchant, 1985; Govindarajan and Gupta, 1985; Simons, 1987). It has been established that management control systems which have been developed in a traditional context, are not sufficiently broad to apply in a contemporary business environment, (Otley, 1980; Emmanuel *et*

al, 1991; Otley, 1994; Otley *et al*, 1995). By the late 1980s, the relationship between strategy and management control systems began to emerge as an area which could overcome the inadequacies of traditional theories (Langfield-Smith, 1997). Langfield-Smith's findings provide evidence that management control systems can influence strategy formulation, implementation and change.

Chenhall (2003) suggested that future contingency-based research should focus more on contemporary contingency based factors, particularly those drawn from other theories such as economics, psychology and sociology. Such approaches would begin to focus on interactions between individuals and interactions within groups, all of which might impact the design and function of MAS and consequently the extent of the MA's role within this MAS.

3.7 MANAGEMENT ACCOUNTING FIELD RESEARCH

Throughout the 1980s, the nature of management accounting was being questioned in the literature (e.g. Johnson and Kaplan, 1987; Bromwich and Bhimani, 1991). There was a noticeable recognition of the gap between theory and practice (Scapens, 1985; Berry, Broadbent and Otley, 1995). The literature of the 1990s welcomed the introduction of new theoretical approaches and an expansion of field-based research methods. This resulted in an expansion in the range of management accounting topics being studied. The organisational role of the MA was now subject to discussion. The traditional role of the MA, the boundaries of the business and the nature of management accounting practices became the new subject matter for analysis (Scapens and Bromwich, 2001). Major findings from these lines of research are summarised below.

3.7.1 Lost Relevance

The MA's role appears to have been in a state of transition for almost two decades. Johnson and Kaplan initiated concerns in numerous publications in the 1980s but most notably in their seminal text: Relevance Lost: The Rise and Fall of Management Accounting (1987). They are critical of the lack of technical

developments within the management accounting profession in response to major changes in the business environment. This triggered more than a decade of research and discussion surrounding the restoration of the relevance of the MA. Many techniques were put forward as the possible saviour of management accounting. Lifecycle costing (Berliner and Brimson, 1988); target costing (Kato, 1993), ABC (Cooper and Kaplan, 1987; 1988; 1991) and quality cost analysis (Pasewark, 1991), represent a sample of the management accounting techniques which were presented. However, as described at 3.7.2 and 3.7.3 below, empirical results reveal little evidence of abandonment of 'traditional' practices in favour of 'new' ones.

3.7.2 Usage of Control Techniques

Pierce and O'Dea (1998) reported high usage of budgets, variance analysis and standard costing. Burns and Yazdifar (2001) also reported that these traditional control techniques were by far the most popular techniques used by MAs. Both surveys reported significant evidence of integration of non-financial performance measures with these traditional practices, yet the balanced scorecard appeared to be enjoying little or no practical application. Pierce and O'Dea (1998) suggested that managers and MAs alike are more comfortable informally integrating non financial performance measures into traditional budget reporting, as opposed to struggling for company wide buy-in to a formal balanced scorecard system. Reported use of ROI was still relatively high according to Pierce and O'Dea (1998), while the same survey reported a considerable usage of benchmarking, particularly in multinational companies. Quality cost analysis recorded high usage in Pierce and O'Dea (1998) and Burns and Yazdifar (2001), and cost of quality was identified as a key cost in earlier surveys by Clarke (1992), Merchant and Shields (1993) and Drury *et al* (1993).

3.7.3 Usage of DM Techniques

Bright, Davies, Downes and Sweeting (1992) reported little or no application of ABC or related management accounting techniques. Drury *et al* (1993) corroborated this by reporting that just 4% of respondents had implemented ABC. Innes and Mitchell (1995) reported that less then 20% of their respondents had implemented

ABC and a large proportion of these implementations were limited in scope and in early pilot stage, less than 9% were actually using ABC extensively in a post pilot stage. Innes, Mitchell and Sinclair's (2000) follow up review reported no growth in the popularity of ABC between 1994 and 1999. Burns and Yazdifar (2001) agreed and reported that ABC was the management accounting tool considered to be of least importance over the preceding five years, while Pierce and O'Dea (1998) reported that it was 'rarely' used by most companies surveyed. Cohen and Paquette (1991), Bright *et al* (1992) and Drury *et al* (1993) all reported high usage of traditional volume-based overhead absorption. Pierce and O'Dea (1998) reported only modest application of marginal costing and cost-plus pricing, though their reported application did exceed that of their supposed 'newer' substitutes, lifecycle costing and target costing, both of which reported little or no usage. Clarke (1992) and Pierce and O'Dea (1998) reported modest usage of DCF techniques. Clarke (1992) suggests that a purely accounting based approach to investment appraisal in a modern highly technological manufacturing environment may result in incorrect DM causing DCF to become one of the most questioned traditional techniques. Customer profitability analysis, together with non financial performance measures and quality cost analysis, are among the newer techniques enjoying comparatively wide-spread application (Pierce and O'Dea, 1998).

The evidence suggests that 'new' techniques were being integrated into 'traditional' techniques and the information resulting from traditional techniques was being adapted to meet the changing requirements of users (Pierce and O'Dea, 1998; Burns and Yazdifar, 2001). The changes which emerged in the management accounting profession is not so much in what management accounting techniques were being performed, rather in who was performing them and how they were being performed (Scapens *et al*, 1996).

3.7.4 Growing Usage of Non Financial Performance Measures

These results corroborate Clarke's (1992) assertions that traditional management accounting techniques are far from redundant. He found a minority of companies using emerging cost and management accounting techniques. Burns and Yazdifar (2001), almost a decade later, agreed. They predicted that the real challenge lay in

the necessity to present non-financial performance measures alongside traditional accounting-based results. Drury *et al* (1993) reported a similar reluctance by companies to let go of their traditional MAS, yet a growing reliance on non-financial performance measures. They too predicted that if the management accounting function failed to reconcile non-financial performance measures with traditional management accounting data, managers would turn elsewhere for more relevant information.

3.7.5 The Changing Focus of Management Accounting Information

Researchers at this point were discussing the necessity to redirect the MA's focus from one of number crunching and record keeping to one of strategic context and commercial awareness. Shank and Govindarajan (1989) describe the necessity for the MA to engage in more strategic planning and less management control. Strategic management accounting encouraged DM which was considered in the context of a competitive marketplace as opposed to within the confines of the internal organisation (Bromwich, 1990; 1991). This transformation was to encourage the MA to furnish 'softer' accounting information, as opposed to the 'hard' numbers. Where previously, the MA boasted a strong tradition in 'hard' financial data, it was now necessary to incorporate qualitative, non-financial details which better enabled managers to tie financial performance back to actual success or failure in the competitive market place. Alongside sales margins and bottom lines, one could expect such things as production times, customer satisfaction feedback or employee turnover (Roslender, 1996).

3.7.6 Empirical Findings

In the early 1990s financial executives were claiming that entry-level accountants were coming to work without the necessary skills and academic preparation. In response, the Institute of Management Accountants (IMA) commissioned the 1994 'Practice Analysis of Management Accounting' which was a study of the tasks, activities, jobs, competencies and skills involved in effectively carry out the role of the management accountant. This Practice Analysis was an attempt to close the academic and corporate skills gap in order to bring about better prepared entry level

management accountants (Siegel and Kulesza, 1994). These practice analysis results were used by educators to amend and update curricula; by organisations to develop corporate skills training programs and by professional accounting associations to review qualification programs (Siegel and Sorenson, 1999). A follow-up Practice Analysis was conducted in 1999 in order to identify any changes that may have occurred in the tasks, activities, jobs, competencies or skills of the management accountant. The 1999 Practice Analysis reviewed the management accountant's role in the context of globalisation, increased competitiveness and the growing power of technology (Siegel and Sorenson, 1999).

The changing focus of management accounting discussed above, was reflected in these two practice analyses, as well as in several other empirical studies investigating the contemporary role of management accounting. Siegel and Kulesza's (1994) practice analysis results revealed that MAs perceived long-term strategic planning to be their second most important work activity, after maintaining their accounting systems and financial information. In addition, as indicated in figure 5, Siegel and Kulesza (1994) reported that the second, third and fourth most important knowledge, skills and abilities, according to MAs, are those which relate largely to problem solving skills and communication skills. These results indicate that while MAs are expected to have a thorough knowledge of basic accounting, they are also expected to display communications skills and the deeper business understanding of a general manager.

Siegel and Sorensen's follow up practice analysis in 1999 described a management accounting profession in which change had accelerated even beyond that reported in the 1995 analysis. Almost 80% of respondents declared that they spent more time analysing information and being involved in the DM process than they did five years ago. Almost half reported that they spent less time preparing standardised reports and two thirds of MAs responded that they spent more time communicating and sharing business information now than they did five years ago. 70% of respondents stated that in their opinion, because of these changes, people outside the finance function believed that MAs bring more value to the company now than they did five years ago. Among the responses were:

Finance has gone from a historical role to a much more collaborative business partner (Siegel and Sorensen, 1999, pp. 8, *US West*).

We're seeing less transactional and more decision-support type of work (Siegel and Sorensen, 1999, pp. 8, *Boeing*).

We spend more of our time analysing and understanding our samples, understanding our margins, understanding our prices, understanding the markets in which we do business (Siegel and Sorensen, 1999, pp. 8, *Caterpillar*)

A marked change in the practice analysis results between 1994 and 1999 relates to the management accountant's role as an information provider. Figure 5 illustrates that in 1994, 'meeting the information needs of internal customers' was the least important of the MA's knowledge, skills and abilities. However, the 1999 practice analysis reveals that management accountants have extended far beyond 'servicing their internal customers' and are now working as internal consultants, analysing and interpreting information for managers. As illustrated in the quotations above, by 1999, MAs certainly see themselves as business analysts, who are actively involved in organisational DM (Siegel and Sorensen, 1999).

Figure 5: Most Important Knowledge Skills and Abilities for MAs as Perceived by MAs

1. Work ethic;
2. Analytical/problem solving skills;
3. Interpersonal skills;
4. Listening skills;
5. Use of spreadsheets;
6. Understanding the business;
7. Understanding the bottom line implications of DM;
8. Writing skills;
9. Familiarity with business processes;
10. Understanding the relationship between the income statement, the balance sheet and cash flow;
11. Leadership skills;
12. Understanding and preparing the financial statements;
13. Understanding the accounting system;
14. Interpreting and analysing the financial statements;
15. Measuring, valuing and presenting revenue and expenses;
16. Understanding accruals and deferrals;
17. Speaking and presentation skills;
18. Meeting the information needs of internal customers

Siegel and Kulesza (1994)

Burns *et al* (1999) assert that underlying MAS and techniques have not changed significantly (as suggested in research findings from the early 1990s discussed above). However, the way in which they are used and administered have and these changes reflect a wider change in the process of management. For instance, technological advances mean that information is now so widely dispersed that managers have ready access to information which was previously provided by the MA. This has resulted in managers preparing their own budgets, updating their own forecasts and in some cases even assessing their own performance. This factor reduces the MA's responsibilities in terms of basic information provision. It is accepted, however, that for information to have any real value it must be presented in a commercial context, mindful of strategic considerations and often expressed in non-financial terms. Burns *et al* (1999) assert that MAS will alter little in terms of the information they produce but it will be necessary to interpret this information in a broader context. Here, according to Burns *et al* (1999), lies the defining characteristic of the MA's modern role:

> the ability to place financial numbers in a broader context and relate them to key non–financial measures (pp.29).

Like Siegel and Sorensen (1999), Burns *et al* (1999) see the MA working along-side, and advising process managers. MA's must combine a financial knowledge with commercial awareness as well as, a broad-based understanding of the business and the market in which the organisation is operating.

Burns and Yazdifar (2001) re-enforce the findings of Burns *et al* (1999) with regard to the lack of change in underlying MAS, yet the substantial change in the MA's role. The former reported that budgets and variance analysis continue to rank as the most critically important tools of management accounting. However, they are increasingly being adopted alongside strategy-led tools such as rolling forecasts and strategic management accounting. According to Pierce and O'Dea (1998):

> ... [there is] a high degree of tailoring of MAS to suit particular circumstances (pp.58).

Burns and Yazdifar (2001) predict that while traditional management accounting practices will remain important, technological advances and the continued

decentralisation of accounting information is likely to result in these techniques being practiced by fewer MAs and more general managers. In this way the MA contribution of control information will involve supporting managers as they engage in greater levels of self-control, by analysing and interpreting information and improving its context.

It is suggested that MAs will become increasingly involved in IT and strategy. They will be expected to perform a support role whereby they will be forced to develop their IT skills so that they can support management in their task of accessing management accounting information themselves. As well as this, they will be expected to develop their strategic awareness and business process knowledge so that they can become astute business analysts capable of analysing information and advising management of the optimum course of action (Burns and Yazdifar, 2001). In this way, the MA's contribution to DM extends to a business partner style role.

3.7.7 The Hybrid Management Accountant

The term 'hybrid accountant' (Burns *et al*, 1999) is designed to encapsulate this dual role characteristic of the present day MA as presented in the contemporary literature, that of *controller* and *business partner*. The nature of each of these components has developed in response to the changing environment. With regard to the controlling component, Burns *et al* (1999) describe the necessity for the MA to put financial numbers in a strategic context and relate non-financial results to organisational objectives. In relation to the partnering role, Burns and Yazdifar (2001) describe the necessity for the MA to be strategically aware as well as displaying a business process knowledge sufficient to adequately advise management for the purpose of management DM.

A hybrid accountant still performs the core management accounting role presented in this study, that of providing information for control, and providing information for DM, the difference is that the hybrid accountant performs it more effectively given all of the changes and developments discussed above.

In the late 1980's Johnson and Kaplan, among others, indicted the MA for relying on antiquated and meaningless techniques which were restrictively controlling and led to sub-optimal DM. The present day MA, it is suggested, must simultaneously assist management in controlling the organisation's financial interests while effectively advising and helping management to run the business.

3.7.8 The Management Accountant as a Business Partner

The business partner role is an extension of the MA's role in contributing DM information (Byrne, 2005). While the traditional MA provides information to managers for the purposes of DM, the MA as a business partner is an equal member of the DM team and acts as a trusted financial advisor to management (Siegel and Sorensen, 1999). To perform this role effectively, MA's must understand the complexities of the business and be capable of interacting with people throughout the organisation (Burns and Scapens, 2000). The MA as a business partner crosses the line from providing information to managers for DM, to collaboratively engaging in DM with those managers.

3.7.9 Conflicts Faced by the Hybrid Management Accountant

The role of the hybrid MA is described as that of simultaneous 'controller' and 'business partner' (Burns *et al*, 1999). It is clear from the literature that this role represents a development from the traditional management accounting role which centred on assisting management primarily with monitoring and control while also providing some decision-support. Granlund and Lukka (1998) recognise the transition in the role of the MA from that of 'business historian and company watchdog toward a more commercially oriented function'. They describe an expanding role, which incorporates newer and wider dimensions such as consultant, advisor, and change agent, all of which are carried out alongside the traditional function of financial monitoring and scorekeeping. Granlund and Lukka (1998) describe the Finnish experience as that of a dual -purpose MA. A 'controller' brings a financial perspective to DM and exists in an advisory and support capacity, thereby appealing to line staff and operations management within the organisation. An 'accountant', monitors financial progress, oversees performance and exists in a

centralised, governance capacity within the organisation, thus appealing to senior and corporate management.

Granlund and Lukka (1998) question whether both roles can be occupied by the same person. Firstly, candidates for each role would be inherently different in their academic orientation. A 'controller' would place greater emphasis on communication, people skills and general business acumen. The 'accountant' would be more mathematically motivated with a desire to report the facts accurately, as opposed to considering the facts commercially. A review of those SACs discussed at section 3.8 exposes some potential conflicts. Secondly, their time orientation is in direct conflict. The controller is concerned with real time current information and how it impacts on future actions. The accountant is more concerned with recording and restating past performance. The scope of their work within the organisation differs in that the controller frequently crosses functions through teamwork and communication, while the accountant is generally restricted to working within the finance function. Granlund and Lukka (1998) report that, from a Finnish perspective, both of these roles are filled by different people or at the very least, by the same person at completely different times.

Perrow (1970), Sathe (1978), Hopper (1980) and Sathe (1982) pose similar questions regarding the conflicts arising as a result of *controller involvement* versus *controller independence*. The scorekeeping role requires the controller to accurately report financial information to management and to do all in their power to ensure the protection of the company's assets. This requires a degree of controller independence from management. Conversely, the controller also has a responsibility to assist in the business DM process. The more involved the controller is in the DM process, the more influence that controller holds over management. Sathe (1982) asks if these roles are mutually exclusive. He questions whether one person can simultaneously occupy the role of policeman or umpire versus active participant in the DM process. This question has not been pursued at length in the contemporary empirical research particularly from the perspective of managers, and so it will form the basis of research question 6 presented in section 4.2.7.

61

3.8 THE SKILLS, ATTRIBUTES AND COMPETENCIES OF AN INFORMATION PROVIDER

Chapter 3 has examined the role of the MA and how this role has changed within the context of the changing business environment. If the role of the MA has evolved, so too must their specific SACs. Figure 6 presents a list, derived from the literature, of the more prominently featured SACs which may be associated with the MA. This list, which is in no particular order, illustrates the abundance of empirical research conducted into the management accountant's SACs. This literature suggests that the MA shows a natural adeptness for some of these SACs, while others are traits favoured by managers, but not necessarily exhibited to a high degree by MA's generally.

Ethics

Governance, compliance and ethics are now a top priority in almost every organisation today. Consequently, ethics is an attribute which is now considered vitally important in all organisational employees, particularly those within the finance department (May, 1999).

Precision, Honesty, Single Mindedness and Conservativeness

Traditionally, accountants have been referred to as 'bean-counters', i.e. people who are single-mindedly pre-occupied with precision and form to the detriment of content and who are precise, doggedly honest and boring (Jackson, 1956; Yamey, 1982; Bougen, 1994). Bougen (1994) maintains that this stereotype has benefited the accountant historically as it lent itself to the image of a confident and trustworthy professional. Friedman and Lyne's (1997) findings suggest the contrary. Their study provided evidence that the bean-counter is perceived as someone who cannot relate to the business, lacks initiative and creativity and encourages sub-optimal decisions.

Figure 6: *Skills, Attributes and Competencies Derived from the Literature*

Attribute, skill or competency	Source
Ethics	May (1999)
Honesty	Jackson (1956) Yamey (1982) Bougen (1994) Friedman and Lyne (1997)
Precision	Jackson (1956) Yamey (1982) Bougen (1994) Friedman and Lyne (1997)
Sound business understanding	Siegel and Kulesza (1994) Siegel and Sorensen (1999) Burns *et al* (1999) Burns and Yazdifar (2001) Brignall *et al* (1999) Scapens *et al* (1996)
IT Skills	Burns and Yazdifar (2001)
Financial Expertise	Siegel and Kulesza (1994) Siegel and Sorensen (1999) Burns *et al* (1999) Burns and Yazdifar (2001)
Communications and interpersonal skills	Siegel and Kulesza (1994) Siegel and Sorensen (1999) Burns *et al* (1999) Dickson and Powers (1979)
Problem solving and analytical skills	Siegel and Kulesza (1994) Siegel and Sorensen (1999) Burns and Yazdifar (2001)
Teamskills	Siegel and Sorensen (1999) Burns *et al* (1999) Burns and Yazdifar (2001)
Impartiality	Hopper (1980) Sathe (1982) Granlund and Lukka (1998)
Creativity	Siegel and Sorensen (1999)
Conservativeness	Jackson (1956) Yamey (1982) Bougen (1994) Friedman and Lyne (1997)
Single-mindedness	Jackson (1956) Yamey (1982) Bougen (1994) Friedman and Lyne (1997)

63

Sound Business Understanding

Siegel and Kulesza (1994), Scapens *et al* (1996), Siegel and Sorensen (1999), Burns *et al* (1999) and Burns and Yazdifar (2001) all reported 'a broad-based business understanding' as a key trait required of any modern MA. This trait incorporates general business acumen as well as a sound understanding of how the organisation's specific business operates in terms of business processes and workflows. Brignall *et al* (1999) found that many managers they surveyed were sceptical of the MA's understanding of the business drivers and processes.

IT Skills

Burns and Yazdifar (2001) suggested that IT skills would become among the most important of the MA's SACs. As information becomes more dispersed around the organisation through Enterprise Resource Planning (ERP) systems, web-based communications and automated processing, their research suggests that the MA may be relied on as a support function in accessing such information.

Financial Expertise

Sound financial know-how is not to be ignored in the analysis of the modern accountant and it is a characteristic identified as critically important in almost all surveys of MA's competencies (Siegel and Kulesza, 1994; Siegel and Sorensen, 1999; Burns *et al* 1999; Burns and Yazdifar, 2001).

Communication and Interpersonal Skills

The Siegel and Kulesza (1994) study ranked 'interpersonal skills' and 'listening skills' as being among the most important characteristics of any MA. Five years later, communication skills ranked the highest in the succeeding 1999 practice analysis. In a UK survey, Burns *et al* (1999) reported that 'broad based personal skills and commercial capabilities' were among the most important attributes necessary to carry out the work of the MA.

Dickson and Powers (1979) found that where preparers of information identify strongly with users' requirements, users and preparers are more likely to have similar perceptions as to the effectiveness of an information system. To identify with user requirements, preparers must communicate with, and listen to, users. Greater communication between MAs and managers will undoubtedly result in managers needs being met more closely.

Problem Solving and Analytical Skills

In Siegel and Kulesza's 1994 practice analysis, MAs themselves voted 'problem solving' as the second most important trait of a MA. Their findings suggested that as contemporary MAs became liberated from the mechanical tasks of the traditional MA, they have more time to engage in analysing information as opposed to merely generating it. This was confirmed in Siegel and Sorensen's subsequent practice analysis in 1999, where 80% of MAs reported spending more time analysing information now than preparing it. Burns and Yazdifar (2001) reported that 81% of respondents agreed that analytical skills were the most important traits of the MA in the last 5 years, while 61% expected them to be the most important in the next 5 years, with analytical and problem solving skills ranking the highest of all skills on each occasion. The nature of information has altered in that financial numbers must be examined in a strategic context and non-financial results must be related to organisational objectives. Information must reflect the strategic, commercial and financial, implications of the issue at hand. The added complexities of today's information places greater challenges on the MA to explain it and discuss it, as opposed to merely present it.

Teamskills

Siegel and Sorensen (1999) found that the ability to work in a team situation was a critically important trait. This was re-iterated in the Burns *et al* (1999) findings where it was similarly highlighted. Burns and Yazdifar (2001) found teamskills currently to be considered the third most important trait over the past five years at 62%, the same sample anticipated it would drop to fifth in importance in the next five years. Findings suggest in this case that IT and the ability to integrate financial

and non-financial data may replace it in importance. As organisational structures have flattened, DM has been decentralised from senior management to empowered teams of employees and middle management. As opposed to feeding the relevant information to senior managers, MAs are now required to facilitate DM by providing valuable insight and knowledge while on cross-functional DM teams. Teamskills will also result in MAs identifying more closely with managers' needs.

Impartiality

The literature has identified two diverse roles for the contemporary MA, that of controller and business partner (Hopper, 1980; Sathe, 1982; Granlund and Lukka, 1998). The controller function involves monitoring performance to ensure that planned results are achieved, while the business partner function involves the MA becoming an equal member of the DM team. There are some potential conflicts between the two roles which are discussed in more detail at section 3.7.8 above. However, impartiality represents a key source of such conflict. The controller role requires the MA to accurately report financial information to management and to do all in their power to ensure the protection of the company's assets. This requires a degree of controller independence from management which demands complete impartiality. Conversely, the business partner has a responsibility to assist in the business DM process. The more involved one is in DM, the more influential one is and the more impartiality may be sacrificed.

Creativity

Involvement in cross functional teams, taking part in organisational-wide DM and taking an active involvement in the problem solving of the organisation are very different tasks to generating monthly spend reports and delivering management accounts. While creativity is not an attribute traditionally associated with the MA, some of the new challenges facing the accountant would suggest that increased creativity may be required (Siegel and Sorensen, 1999).

3.8.1 Providers of Control Information and Providers of DM Information

Having ascertained at section 2.2.4 that the MA's role consists of two, often conflicting, elements, that of contributor to control and contributor to DM, it is clear from section 3.7.9 and 3.8 that MA's are presented with a conflict in terms their contribution of control information and their contribution of DM information. If the MA is to progress to the hybrid accountant role which incorporates a broader contribution to control and a more involved 'business partner' style contribution to DM, clearly, many of the SACs discussed above are not equally compatible with both of these functions. Some may be considered more useful in MAs providing control information, while others may be more useful in MAs providing DM information. Granlund and Lukka (1998) report that an accountant engaged in providing information for DM would require stronger communications and team-skills while the accountant engaged predominantly in providing information for control would be restricted to working within the financial function and so would be less reliant on communication and team-skills. This conflict issue is significant enough to prevent the MA from engaging in the hybrid accountant role discussed at 3.7.7 and more specifically the business partner role discussed at 3.7.8. Hopper (1980) suggests that a controller might be more concerned with impartiality than a business partner. While Bougen (1994) maintains that the MA's reputation for 'dogged honesty' benefits the traditional MA who was perceived as a trustworthy and impartial contributor. However, Friedman and Lyne (1997) reported that this image portrayed a MA who lacked the creativity and knowledge to become more involved with the DM process. Some studies, such as these, have referred to the conflicting attributes of the MA, given the diverse nature of his/her contemporary role. The literature has specifically addressed the overall issue of conflict within the MA's diverse role (Perrow, 1970; Sathe, 1978; Hopper, 1980; Sathe, 1982). However, few studies have focused specifically on the manager's views of the importance of different SACs in the MA depending on what type of information he/she is providing. Perceived differences in the importance of the various SACs in providers of control information as compared with providers of DM information, may help to explain the extent of the MAs' involvement in the provision of control or DM information, which may in turn help to determine their role as well as the

reasons for their gravitation towards this role. This forms the basis for research question 2, detailed at 4.2.3.

3.9 SUMMARY AND CONCLUSIONS

Chapter 3 presented a review of the literature relating to the MA's changing role over the past two and a half decades. The changes occurring in the business environment during that period are presented as well as an overview of the effects of these changes on the key control and DM functions of the MA. A contemporary control framework (Otley, 1999) is presented which is compared to Simons (1995) control framework which was first introduced in chapter 2. Chapter 3 then revisits the DM frameworks introduced in chapter 2 before going on to provide an overview of the contingency theories of management accounting.

Developments in field based research methods in the 1990's led to a growth in the range of management accounting topics being researched. The role of the accountant and the changes occurring in that role were researched at length. An account of this is provided in chapter 3. This account provides a description of the hybrid accountant as presented in the literature together with the conflicts inherent in this role. The extension of the MA's contribution to DM into a type of 'business partner' role is also described before going on to present a list of MA's SACs derived from the literature. The literature has not examined the extent to which managers perceive these SACs to be as important in providers of control information as compared with providers of DM information, and vice versa. This provides the basis for research question 2 in section 4.2.3. Section 3.7.9 provides an account of the literature addressing the conflicts inherent in the MA's role as a simultaneous 'controller' and 'supporter'. Few studies have examined this from the manager's perspective. This forms the basis of research question 6, outlined in section 4.2.7.

CHAPTER 4

Objectives and Methodology

4.1 INTRODUCTION

Chapter 4 presents the objectives of the study, as well as the methods adopted in addressing these objectives. Section 4.2 describes the overall objective, followed by an outline of each of the underlying research questions. Sections 4.3 and 4.4 detail the methods of data collection and analysis respectively. Section 4.5 describes the measures taken to address reliability and validity issues while section 4.6 concludes the chapter.

4.2 OBJECTIVES OF THE STUDY

Based on a review of the relevant management accounting and management information systems literature as summarised in chapters 2 and 3, a general overall objective was formulated, together with a series of specific research questions as set out below.

4.2.1 General Overall Objective

The literature suggests that the traditional MA may be perceived to be somewhat inadequate in today's business environment. The issues described in chapter 3, including technology, competitiveness and downsizing have placed new challenges on MAs in terms of the information they're expected to provide (Siegel and Kulesza, 1994; Siegel and Sorensen, 1999; Burns *et al*, 1999; Burns and Yazdifar, 2001). The modern MA must provide meaningful and useful information, reflecting all of these changes, for both control and DM. There are many challenges to controlling in today's environment- empowered work-forces, distributed information and increased incidence of employee self control have changed the parameters of control (Otley, 1994). MAs must put financial numbers in a strategic context and relate non-financial results to organisational objectives (Burns *et al*, 1999). The ability to assist in DM requires MAs to provide information which reflects fully the strategic, commercial and operational, as well as financial implications of the decision at hand (Burns and Yazdifar, 2001). This suggests that the contemporary MA is responsible for providing an increasingly wide range of information. Some of the literature (Burns *et al*, 1999; Siegel and Sorensen, 1999) suggests that this can only be

achieved if the MA transforms into a 'hybrid accountant' who assists managers in controlling the organisation given all of the significant changes and developments described above, while also performing a 'business partner' role in which the MA progresses from providing information to managers for DM to actively participating in the DM process. However, the literature suggests that in many ways the MA does not appreciate this breadth of information required by managers (Pierce and O'Dea, 2003). Research indicates that MAs are still providing information which is largely confirmatory and historic (Bruns and McKinnon, 1993), synoptic and financial (Mendoza and Bescos, 2001) and often they are providing it too late to be useful and in a format which is difficult for managers to understand and use (Pierce and O'Dea, 2003). Such findings suggest that managers generally are not satisfied with the role being played by the MA. These findings undermine the MA's ability to contribute effectively to control and/or DM and certainly place doubts over his/her ability to become a 'hybrid accountant'. Few empirical studies have examined the MA's contemporary role from the manager's perspective (Bruns and McKinnon, 1993; Mendoza and Bescos, 2001; Van der Veeken and Wouters, 2002). Enquiries of MAs do little to establish the needs of managers (Pierce and O'Dea, 2003). This indicates that there is a need for an examination of managers' perceptions of the role of the MA in the provision of information for control and DM purposes as well as the factors influencing this role. It is intended to achieve this overall research objective by posing a series of research questions, as presented in the following sections.

4.2.2. Research Question 1

Section 2.6 discussed a specific body of management accounting literature which describes information in terms of its value to managers (Belkaoui, 1980; Chenhall and Morris, 1986; Jonsson and Gronlund, 1988; Bruns and McKinnon, 1993; Mia and Chenhall, 1994; Mendoza and Bescos, 2001; Pierce and O'Dea, 2003; Van der Veeken and Wouters, 2002). From this review, a comprehensive list was derived of the specific characteristics most frequently referred to by managers when discussing the merits or lack thereof in information they use. Section 2.6.1 describes a need to ascertain what type of information managers perceive to be important for control and DM and whether or not significantly different types of information is required in each case. In this way it will be possible to ascertain if these two sets of information

requirements conflict and whether the MA is particularly suited to providing either type in light of such conflicts.

RQ1: What characteristics of information do managers perceive to be important for the following purposes:
  (a) Control
  (b) Decision Making?

4.2.3 Research Question 2

Chapter 3 discusses the developments occurring in the business environment over the past two decades as well as the repercussions of these developments on the role of the MA. Section 3.8 provides a review of the empirical research which has taken place in relation to the various SACs of the MA (Siegel and Kulesza, 1994; Siegel and Sorensen, 1999; Burns *et al*, 1999; Pierce and O'Dea, 2003) and presents a comprehensive list of the SACs often referred to when describing an information provider. The literature has not focused in detail on the extent to which these SACs may be perceived to be as important for control as for DM, and vice versa (3.8.1). RQ2 therefore asks if managers look for something different in providers of control information as opposed to providers of DM information.

RQ2: What skills, attributes and competencies do managers perceive to be important in providers of information for the following purposes:
  (a) Control
  (b) Decision Making?

4.2.4 Research Question 3

Chapter 3 describes the contemporary MA as a 'hybrid accountant' who is a simultaneous controller and business partner (3.7.7). This contemporary MA must provide both control and DM information and this is proving increasingly challenging in today's business environment (Burns *et al*, 1999; Siegel and Sorensen, 1999; Burns and Yazdifar, 2001). RQ3 therefore asks managers to describe their MAs role in information provision for control and DM.

RQ3: To what extent is the MA providing information to managers for control and/or DM?

4.2.5 Research Question 4

Previous surveys of managers have concentrated on managers' perceptions of the importance of particular information characteristics or on the MA's ability to produce information containing these characteristics (Chenhall and Morris, 1986; Bruns and McKinnon, 1993; Mendoza and Bescos, 2001; Van der Veeken and Wouters, 2002). According to Pierce and O'Dea (2003), few studies have specifically attempted both. Pierce and O'Dea (2003) themselves compared the perceptions of managers and management accountants in the same organisations regarding information supplied by the management accounting function. This study builds on Pierce and O'Dea's research by first asking managers what they look for in their information and then asking them how their management accountants perform relative to these expectations. This study focuses more exclusively on managers' perceptions and examines why some management accountants fall short of manager expectations and if this is impacting the management accountant's overall role. RQ4 therefore examines managers' perceptions of the usefulness of the information provided by their MAs relative to their expectations. Responses to this question are expected to provide reasons for the MA's level of involvement in the provision of information for control and/or DM.

RQ4: How effective is the MA perceived to be in providing useful information?

4.2.6 Research Question 5

At this point, the managers have indicated how important they perceive various SACs to be. In order to provide further insight into the factors influencing the MA's role in the provision of control and DM information, RQ5 asks managers if their MAs meet expectations in terms of exhibiting those SACs. Responses to this question will highlight gaps between the MA's capabilities and the manager's expectations. Few studies to date have examined the MA's SACs in this way.

73

RQ5: To what extent does the MA display the skills, attributes and competencies associated with providers of useful information?

4.2.7 Research Question 6

The literature is clear about the existence of some conflicts in the MA's role as a simultaneous provider of both control and DM information (Perrow, 1970; Sathe, 1978; Hopper, 1980). As the MA's role develops into that of a hybrid accountant, evidence suggests that such conflict increases (Granlund and Lukka, 1998). Sathe (1982) describes the conflicts between controller involvement and controller independence. The controlling function requires MAs to accurately report results and monitor performance. This requires a degree of independence from management. Conversely, the MAs' contribution to DM affords them power and influence. According to Sathe (1982), the more involved one is in DM the more influential one is. This conflicts with the independence required for control. Studies to date have not examined managers perceptions of these conflicts. RQ6 therefore investigates managers' perceptions of the conflict between the MA's alternate roles.

RQ6: To what extent do managers perceive a conflict in the MA's capacity to provide both control and DM information?

4.3 DATA COLLECTION

There is a general acceptance that a true insight into the performance of the MA can only be achieved through discussion with managers (Chenhall and Morris, 1986; Bruns and McKinnon, 1993; Mendoza and Bescos, 2001). MAs' own responses are susceptible to response bias and provide little insight into the true requirements of managers and the performance of MAs relative to these requirements (Pierce and O'Dea, 2003). Data was therefore collected by means of 18 semi-structured interviews with managers in varying roles, in many different types of companies varying from an Irish indigenous specialist biomedical enterprise to a large multinational computer component's manufacturer.

74

4.3.1 A Qualitative and Quantitative Study

Quantitative methods involve using standardised measures so that people's varying responses can fit into a limited number of response categories. Quantitative measures allow the responses of a large number of people to a limited number of questions to be compared and statistically aggregated (Patton, 2001). Quantitative data collection focuses on the measurement and analysis of variables and these results are presented in the form of numbers (Punch, 2005).

Qualitative methods allow a study of the issues in depth and detail and can generate a lot of information about a smaller number of cases (Patton, 2001). Qualitative data is presented in the form of words and may include interview transcripts, recordings and notes, observational records and notes, legal documents and personal experience materials such as diaries (Punch, 2005).

Quantitative data collection does not allow people to provide information using their own terms, meanings and understandings as qualitative data collection does. However, peoples own terms, meanings and understandings are almost impossible to compare in a standardized fashion. Systematic comparisons of structured responses are valuable, but the in depth insights of respondents using their own terms and concepts are also valuable (Punch, 2005). Punch therefore suggests:

> ... combining the two approaches in such a way as to retain the advantages of each (Punch, 2005).

Quantitative and qualitative data collection have different strengths and weaknesses but they are not mutually exclusive. A qualitative study may be adopted in combination with a quantitative approach. An interview that asks both closed and open-ended questions is an example of combining quantitative measurement with qualitative enquiry (Patton, 2001).

4.3.2 Interview approach

The main qualitative data collection methods used are interviews, observation and document review (Punch, 2005). In this case, an interview approach to data

collection was adopted. This approach offered the distinct advantage of facilitating both quantitative and qualitative data collection. Semi-structured interviews were conducted in which both standardised questions with a predetermined range of answers as well as open-ended questions were put to the interviewees.

Interviews allow verbal exchanges, which facilitate added explanations of the information required by the interviewer, and enhanced elaboration of responses by the interviewee (Swenson, 1995). Interviews offer the best opportunity to understand somebody else's perspective. They provide an insight into feelings, thoughts and intentions that few alternative qualitative data collection methods will facilitate (Patton, 2001). Survey results will offer a succinct summary of major patterns but interviews allow the researcher to attain depth, detail and individual meaning (Patton, 1990). Aaker and Day (1983) maintain that semi-structured interviews facilitate greater depth, perspective and insight by allowing open discussion in a structured and logical manner. This approach helps to avoid potential misunderstandings and facilitates the probing and clarification of interviewee responses.

4.3.3 The design of the study

To ensure 'comprehensive and systematic interviewing' (Patton, 1990, pp.283), an interview guide was used, a copy of which is included at appendix A.

Specific quantitative information was requested with regard to question 1 (relating to the perceived importance of various information characteristics), question 2 (relating to the perceived importance of various SACs), question 4 (relating to perceptions of the MAs performance in terms of producing information containing the various information characteristics), and question 5 (relating to perceptions of the MAs' performance in terms of exhibiting the various SACs). Managers were asked to choose these responses from a pre-determined rating scale. Questionnaires were completed during the course of the interviews to record the structured data gathered in these responses. A copy of this questionnaire is included at appendix B. The managers were then asked follow-up open-ended questions. While the questionnaires provided statistically generalisable patterns, follow-up open-ended enquiry was

required in order to ascertain the depth, detail and meaning of the managers' own experiences.

Open-ended questions only were used to elicit information with regard to question 3 (relating to the extent of the MA's involvement in control and DM) and question 6 (relating to the perceived conflict between both). Attempts were made to make all questions as clear, neutral and open-ended as possible in keeping with suggestions by Patton (1990).

4.3.4 Sampling

The study was conducted using a purposeful random sampling approach. Purposeful random sampling does not automatically eliminate any possibility from a random selection of cases. This type of sampling reduces bias but will not permit statistical generalisations to a large population (Patton, 2001). The sample selected in this study was random in the sense that managers of all types of organisations (manufacturing, government, retail) and all types of organisational functions (production, logistics, distribution, sales, marketing and general) were sourced and interviews were arranged without any initial enquiries as to the managers' relationship with the MA. Any manager from the list of CIMA companies and the researchers own work related contacts (discussed in section 4.3.5) could have been selected for interview. However, the sample was purposefully selected in that only managers with responsibility for a department, line, division or function were targeted. In this way the managers were screened to ensure that they had the appropriate experience to contribute effectively to the study.

4.3.5 Sourcing the Sample

The most fundamental issue that any field researcher confronts is an ability to gain access to the field, that is, an ability to gain access to contemporary organisations (Baxter and Chua, 1998). Gaining access to an appropriate sample of managers presented many challenges, which were overcome in a variety of ways. The researcher began the sample selection process by writing to fifty CIMA registered MAs (obtained from the CIMA 2003 Members Yearbook) and requesting the contact

details of an appropriate manager within their organisation. A copy of this letter is included at appendix C. Two interviews resulted from this approach. Where no response was received, these letters were followed up with phone calls within approximately one week. In some cases the MA to whom an initial enquiry had been sent had left the company, and so a follow-up conversation was conducted with the replacement MA, a manager within the company, or a member of HR. This resulted in a further four interviews. Capitalising on more opportunistic methods (Patton, 2001), the researcher's own personal and work related contacts resulted in a further six interviews. In these cases, the manager was directly sourced without contacting the MA. The remaining 6 were sought out through cold calling a large number of companies and attempting to make direct contact with the relevant managers. This list of companies was obtained from the IDA and Enterprise Ireland web sites.

Due to the guarantee of confidentiality, all company and manager names have been disguised using a simple letter referencing system. Appendix D provides a profile of the interviewees.

4.3.6 Data Gathering

Face-to-face interviews of approximately 60 minutes were conducted with each manager at either a neutral meeting point or at their own premises. Interviewees were provided with a brief summary of the areas to be discussed in advance of the meeting. All interviewees granted permission to record the interviews. As described in 4.3.3 above, questionnaires were completed in relation to some of the questions. During each interview, as recommended by Patton (2001), additional notes were taken to record issues such as setting, reaction to questions, body language and rapport. After each interview, further notes were added as part of a brief post interview review. Patton (2001) advised that these will later provide a context in which to interpret the findings. They also assisted in preparation for the next interview.

4.4 DATA ANALYSIS

Data analysis began after each interview when the transcripts were prepared and the interview notes and questionnaires were reviewed. All of the transcripts were completed by the researcher. At this point, notes were made regarding potential issues and themes which appeared to be emerging in the initial findings.

After all of the interviews were complete, quantitative responses were entered into an excel spreadsheet designed to collate and summarise all quantitative results.

The completed transcripts and notes together with the initial quantitative results were then reviewed together. Further notes were made regarding potential issues or themes. These notes were recorded on the transcripts and notes themselves. After this the detailed data analysis commenced.

4.4.1 Quantitative Analysis

Regarding question 1, managers were asked to rate specified information characteristics, and in relation to question 2, they were asked to rate specified SACs, in terms of how important they perceived each to be for (a) control, and (b) DM. A rating scale of 1 to 5 was used, where 1 equated to not at all important; 2 somewhat important; 3 quite important; 4 very important and 5 extremely important. This resulted in the calculation of a mean importance rating for each characteristic of information for (a) control and (b) DM, and for each SAC for (a) control and (b) DM.

Further statistical procedures examining the differences between the means were necessary in order to provide some indication of a relationship between variables. Non-parametric methods are considered more appropriate than parametric methods where the samples are smaller and/or the populations are not normally distributed (Anderson, Sweeney and Williams, 1990). Wilcoxon signed rank testing is the non-parametric equivalent to the one sample t test and the matched pairs test. In a matched pairs situation, each experimental unit generates two paired or matched observations, one from population one and one from population two. The differences

between the matched observations provide insights concerning the differences between the two populations (Siegel, 1956). Wilcoxon signed rank testing is used in two ways in relation to questions 1 and 2.

Firstly, the mean responses for each characteristic or attribute in relation to control are assumed to reflect one population, while the mean responses for each characteristic or attribute in relation to DM are assumed to reflect a second population. Using Wilcoxon signed rank testing the significance of the differences was calculated between the mean responses for each characteristic or attribute for control and the comparative mean responses for each characteristic or attribute for DM. These results are presented and discussed in chapter 5 in tables 1 and 2 and sections 5.2 and 5.3 respectively. Secondly, in relation to question 1, the mean responses in relation to the importance of each characteristic for control purposes are assumed to reflect a series of populations. The responses in relation to each characteristic are in turn compared with the responses in relation to every other characteristic in the list, each individual test resulting in the matching of two separate populations. In this way it is possible to ascertain the significant difference between each characteristic, initially for control purposes. This testing was repeated again in order to ascertain the significant difference between each characteristic for DM purposes. These results are presented in appendices I and J respectively and are also discussed at section 5.2. The same methods were used for question 2 in order to ascertain the significant difference between the importance of the various SACs, initially for control purposes, and then for DM purposes. These results are presented in appendices K and L respectively and are discussed at section 5.3.

In questions 4 and 5, managers were asked to rate their MA's performance in relation to each of the information characteristics and each of the SACs, respectively. They were asked to rate their MA's performance on a scale of 1 to 5, where 1 equated to bad; 2 fair; 3 good; 4 very good, and; 5 excellent. In these cases, the managers were responding with regard to their MA's overall performance, and not their performance in relation to control as distinct from DM. Probing during the initial interviews revealed that the managers were of the opinion that their MAs did not perform differently in control versus DM scenarios and so the managers themselves were unable to provide differing scores. The MAs' performance scores at questions 4 and

5 were compared with the managers' expectations scores at 1 and 2 and an expectations gap, if one existed, was calculated. These results are presented in tables 3 and 4 in chapter 5, and are discussed in sections 5.5 and 5.6 respectively.

As described for questions 1 and 2 above, the mean responses in relation to the MAs' performance for each characteristic, and for each SAC, were tested using Wilcoxon signed rank testing in order to ascertain the significant difference between the MAs' performance for each. These results are presented at appendices M and N.

All non-parametric testing was conducted with the assistance of Microsoft Excel based Analyse-It software.

4.4.2 Qualitative Analysis

Quantitative measures are systematic, standardised and are easily aggregated for analysis. In contrast, qualitative findings are very detailed and variable. A substantial amount of transcripts and field-notes must be reduced to a manageable number of themes or insights. The first step in achieving this is the development of a classification or coding scheme which facilitates the generation of ideas and themes (Patton, 2001). Once all of the field research was complete, each interview transcript, together with the corresponding notes, was reviewed as described at the data analysis introduction in 4.4 above. A coding system was established based on the results of this review. The codes relate to the key topics emerging within each research question. Each section of the transcripts and notes were coded. Coloured highlighter pens were used to identify each coded section.

A grid-like framework was established which was designed to capture the results in a logical and meaningful fashion. Each coded section of the notes and transcripts was placed in its appropriate part of the framework. Once fully collated, this framework presented an initial draft of the qualitative results, presented by research question and by initial findings. The actual collation of the coded sections underwent several iterations before the draft results were clearly presentable.

Once a draft copy of the results was prepared, it was reviewed in detail several times. Consistencies and commonalities were grouped in an effort to ascertain potential patterns. Miles and Huberman (1994) identified pattern analysis as a key method of drawing and verifying conclusions from qualitative findings. Pattern analysis was conducted whereby data were reviewed for evidence of confirmation or contradiction of previously identified patterns. These patterns were reviewed together with the supporting evidence, in the context of the quantitative findings, so that significant themes could be identified with the specific research questions. The pattern analysis revealed initial findings out of which a framework emerged through which the findings could be interpreted and conclusions drawn.

The interpretation of findings is one of the greatest challenges facing the qualitative researcher. Qualitative interpretation is exposed to subjective interpretation and bias fuelled by the researchers own experiences. In addition, qualitative interpretation is considered difficult to replicate and is therefore considered somehow untrustworthy (Bryman, 1985). With this in mind, a process of AI was applied to this interpretive process. AI is a sequence of rigorous analytical procedures applied to qualitative results so that the findings as interpreted are a true reflection of the phenomenon being investigated (Bryman, 1985). It is a process by which the researcher continually challenges or attempts to 'disprove' or 'disconfirm' the concepts or ideas emerging from the findings (Ragin, 1994). By exposing the results to such rigorous analysis, AI increases the validity and reliability of qualitative findings. This process was particular pertinent for research questions 3 and 6 because these findings were entirely qualitative and could not be triangulated with any comparative quantitative findings. The AI process is discussed in greater detail in section 4.5 below.

All of these results were then reviewed together with the key literature so that the key conclusions of the findings could be stated and supported. The key results, both quantitative and qualitative, analysed in the context of the research questions, are presented in chapter 5. The interpretation of these results, identifying the core themes and issues emerging from the study, is presented in chapter 6.

4.5 RELIABILITY AND VALIDITY

Ultimately, every researcher must convince the reader of the credibility of their findings. The two key concepts in any discussion on the credibility of research findings are reliability and validity (Silverman, 2001).

Reliability has been described by Hammersley (1992) as:

> … the degree of consistency with which instances are assigned to the same category by different observers or by the same observer on different occasions (pp.67).

Reliability essentially means that if the analyses were to be repeated by a second analyst, he/she would arrive at the same results. Such reliability is easier to guarantee in relation to quantitative analysis because a quantitative analysis can be 're-produced' quite easily given the standardised nature of most statistical operations, but it does prove to be much more difficult in relation to qualitative analysis where the analyses techniques are not quite so structured and standardised. Punch (2005) suggests that the best way to increase the reliability of qualitative findings is to document the methods of data analysis which were used in as much detail as possible in order to expose them to the maximum amount of scrutiny. A detailed account of both the qualitative and quantitative data analyses carried out in this study are presented throughout section 4.4 above. Further detail as to how the findings were interpreted is provided in chapter 6, in section 6.2.

Validity is referred to by Hammersley (1990) as:

> … the extent to which an account accurately represents the social phenomena to which it refers (pp.57).

Validity means the extent to which the findings may be considered 'true'. It may be broken down into internal validity and external validity. Internal validity addresses the internal logic and consistency of the study. In quantitative research analysis this addresses the extent to which the relationship between the variables are correctly interpreted. In qualitative research analysis it addresses the extent to which the findings represent reality. External validity addresses the question of generalisability. It asks to what extent are the findings generalisable to a wider population (Punch, 2005).

Every researcher must convince the reader that their interpretations of the findings are a true reflection of the reality studied. In other words, they must convince the reader that their interpretations are valid. Silverman (2001) suggests some techniques to assist this process. Firstly, *Respondent Validation*, which involves taking ones findings back to the subjects being studied. This is not practical in every case as often the findings would be contaminated by the subjects input (Reason and Rowan, 1981) and this was considered to be the case in this study. A second method suggested is *Triangulation*, which is applied in this study and is discussed in section 4.5.6 below. Finally, Silverman (2001) suggests a series of analytical techniques one of which is *AI*, which is applied in this study and is discussed in section 4.5.5 below.

Throughout this research process several measures were taken in order to maximise the reliability and the validity of these findings.

4.5.1 Sampling Procedures

As described at 4.3.4, a random sampling approach was adopted in selecting managers for interview. This means that no potential interviewee was ruled out. In other words, all interviews were arranged without any pre-conceived notion on the part of the researcher as to the manager's relationship with the MA.

4.5.2 Post Interview Review

> The period after an interview or observation is critical to the rigour and validity of the qualitative findings. This is a time for guaranteeing the quality of the data (Patton, 2001, pp.383).

As described in the introduction to 4.4 above, following each interview, field notes were reviewed to ensure that they were clear and made sense. Two follow-up calls were conducted in order to clarify some details of the interview. Post interview notes were added recording observations made during the interview and emerging thoughts and ideas. Patton (2001) described the post interview period as a time of quality control to ensure that the data gathered is correct and reliable.

4.5.3 Confirmation of Transcripts

A copy of each transcript was sent back to each interviewee. Interviewees were asked if they would read the transcript and satisfy themselves that the transcript represented a true reflection of the interview and that they were not quoted incorrectly. The managers were advised that their non-response would be assumed to be an indication of their satisfaction with the transcript. Ten interviewees responded, nine of which were completely satisfied with the contents. One manager wished to make some amendments to minor details included within his quotations in order to avoid any possible compromise to the confidentiality of the interview.

4.5.4 Rigours of Quantitative and Qualitative Analysis

The validity of quantitative measures depends on the correct and appropriate administration of the mathematical tools used for quantitative analysis (Patton, 2001). This study involved the use of non-parametric testing as described at 4.4.1. The researcher conducted an extensive study of parametric and non-parametric testing procedures. The researcher also sought advice and review from a statistics expert before placing any reliance on the statistical testing results.

The validity of the qualitative analysis is more dependant on the skills, competence and rigour of the researcher (Patton, 2001). Section 4.4.2 above described the rigorous approach pursued in carrying out the qualitative analysis. The system of data review and coding, followed by the collation of draft results, followed by pattern analysis was an iterative process carried out several times as the researcher gained more knowledge throughout the data analysis process. This was followed by a rigorous AI process as described in the following section.

4.5.5   Analytical Induction

AI is a term which was developed by Znaniecki in 1934 and may be described as:
> the systematic examination of similarities between cases to develop concepts or idea's (Punch, 2005, pp.196).

AI is a methodology with which researchers challenge or try to 'disconfirm' concepts of ideas that they are developing. In doing so, they focus particularly on negative cases or exceptions (Ragin, 1994). The following represents a simple approach to AI. Firstly, each case is tentatively classified into a category. Secondly, common features of the cases subsumed within a particular group are noted. Thirdly, deviant cases are examined in order to determine if the list of common features need to be expanded or if a new category needs to be established. Finally there is further scrutiny of the cases in each category (Bryman, 1985). Many different texts describe slight variances, more steps or extra iterations, but this captures the basic steps of AI. The AI process, as it is applied to this study, is described in section 6.2.

4.5.6 Triangulation

Miles and Huberman (1994) suggest that triangulation supports a finding by showing that independent measures agree with it, or at least, do not contradict it. This study adopted both qualitative and quantitative measures of analysis, the results of both of which supported each other.

> When quantitative and qualitative research are jointly pursued, much more complete accounts of social reality can ensue (Bryman, 1985 pp.126).

During the semi-structured interviews, research questions 1, 2, 4 and 5 began with each manager choosing from a list of predetermined numbered options which were then subject to quantitative analysis by the researcher as described in section 4.4.1. As described in section 4.3.3, the managers were also asked open-ended questions in relation to these specific research questions in order to establish greater depth and meaning from the managers' experiences. These responses were then subject to qualitative analysis as described in section 4.4.2. In this way, these research questions were addressed using two alternative methods and in most cases, they both revealed consistent results. There were just two instances where the quantitative and qualitative results contradicted each other. Firstly, the qualitative responses indicated a difference in the importance of accuracy and consistency in control as opposed to DM information while the quantitative responses indicated no significant difference, as described in section 5.2.2. Secondly, the qualitative responses indicated a difference in the importance of problem solving skills in providers of control and

DM information while the quantitative data indicated no significant difference, as described at section 5.3.3. These were the only two real instances of contradiction between the qualitative and quantitative findings. The remainder were mutually supporting.

4.6 SUMMARY AND CONCLUSION

The objective of the study is to provide an examination of managers' perceptions of the role of MAs in the provision of information to managers for control and DM purposes, as well as the factors influencing this role. Chapter 4 begins with a detailed description of the research questions posed in order to achieve this research objective. A qualitative and quantitative study was designed based on data from 18 semi structured interviews with 18 different managers. The data collection techniques are described explaining why the interview technique was chosen and describing how this approach was implemented. The chapter goes on to discuss the data analysis techniques, describing in detail the quantitative and qualitative analysis conducted. The chapter concludes with a description of the measures taken in order to maximise the validity and reliability of the findings in terms of sampling procedures, post interview review, confirmation of transcripts, rigorous quantitative and qualitative analysis including analytical induction and triangulation.

CHAPTER 5

Presentation of Findings

5.1 INTRODUCTION

Chapter 5 reports the qualitative and quantitative findings of the study. Each of the subsections, section 5.1 through to section 5.6, deals with the research questions 1 through to 6, as outlined in chapter 4. The analysis and interpretation of the findings is set out in chapter 6 and throughout chapter 5, references are made to the associated discussion point in chapter 6.

5.2 RESEARCH QUESTION 1

What characteristics of information do managers perceive to be important for the following purposes:
  (a) Control
  (b) Decision Making?

The managers were asked to rate specified information characteristics in terms of how important they perceived each to be in (a) control, and (b) DM information. A rating scale of 1 to 5 was used, where 1 equated to not at all important and 5 extremely important. The results are summarised in table 1, with further statistical analysis presented at appendices I and J. A detailed breakdown of the individual manager responses is included in appendix E.

5.2.1 High Importance for both Control and DM Information

Relevance and reliability were considered the most important characteristics for both control and DM information. Relevance was considered significantly more important than consistency, flexibility, timeliness, aggregation and scope for control purposes (refer to appendix I) and timeliness, accuracy, flexibility, scope, aggregation and consistency for DM purposes (refer to appendix J). Reliability was considered significantly more important than flexibility, timeliness, aggregation and scope for control purposes (refer to appendix I) and considered significantly more important than flexibility, scope, aggregation and consistency for DM purposes (refer to appendix J).

The managers perceived little or no difference in the importance of either whether the information was for control or DM:

> Irrelevant information, in any case, is simply not useful and wastes my time (F).

> Surely reliability is a given. If its not reliable for a start it jeopardises the entire system (G).

Table 1: *Descriptive statistics of importance of characteristics of (a) control information and (b) DM information*

Characteristics of Information	Control Information		DM Information		Wilcoxon Signed Rank Results	
	Mean (Standard Deviation)	Rank	Mean (Standard Deviation)	Rank	Z	P Score
Relevance	4.78 (0.53)	1	4.89 (0.31)	1	-1	0.317
Reliability	4.50 (0.76)	2	4.56 (0.76)	2	-1	0.317
Accuracy	4.44 (0.96)	3	4.06 (1.31)	4	-1.38	0.168
Consistency	4.00 (0.67)	4	3.56 (1.30)	8	-1.14	0.26
Flexibility and Adaptability	3.89 (0.66)	5	3.89 (0.74)	5	0	1
Timeliness	3.56 (0.96)	6	4.28 (0.87)	3	**-2.14**	**0.03***
Aggregation	3.44 (0.83)	7	3.56 (0.76)	7	-1	0.317
Scope	3.11 (1.20)	8	3.78 (1.31)	6	**2.58**	**0.01****

Significance levels   *0.05   **0.01

5.2.2 Key Differences between Control and DM Information

As indicated in table 1, timeliness and scope were both considered significantly more important in DM information than in control information:

> With regard to control or historical information, timeliness is somewhat important but it's not paramount. However for DM purposes, I can tolerate far less accuracy as long as timeliness is improved (A).

Timeliness [for control] is not an issue insofar as we know the dates, there's lots of clarity there, everybody understands it... as regards projects it really depends on the importance of the projects and the potential turnover. I have just come out of a project there where the date was set. It had to happen, end of story (B).

Manager R, tended to turn elsewhere for project information:

Project information requirements are much more responsive, this information tends to come from the purchasing department and is not so report driven (R).

Some managers expressed similar sentiments in relation to scope:

Project information would generally involve a greater necessity for broader scope (B).

Key decisions would require broader input from all parties (H).

The most revealing feedback in relation to scope however was from managers who simply did not perceive the provision of broad scope information to be within the domain of the MA:

From the MA, I require 3 key pieces of informational output, my controllable lines. That's all I'm interested in from a management accounting perspective. If those things are reported adequately, that would be everything I am concerned about (E).

You see finance stuff is always after the fact... MAs give the facts and they give them well. There are plenty of other people around here whose job it is to crystal ball gaze (G).

Scope may have played a larger role in DM information, but ultimately, MAs are valued for their traditional, more narrow-scoped information:

Tell me about the statutory rules, tell me about the changing tax laws, tell me about the new European directives, I mean the scope is important but I am looking at my controllable lines, my COGS as a per cent of revenue and my cost per unit. These other things are important and if you have things like this to tell me that's great, but they will not be the first topic of conversation (D).

To be honest, I want my numbers. That's my priority. From a financial analysis point of view, I want our costs compared with forecast, budget and our competitor sites. They know that and they give it to me. I like to get the picture behind it when I need it, probably more so when considering projects (K).

Many managers appeared to value broad scoped information but did not rely on the MA to provide it:

> In thinking about the finance function, I distinguish very much between the accountant and the financial controller. On the one hand, the financial controller is very much a member of the management team who plays the role of the expert financial analyst. On the other, the traditional, reactive, narrow-scoped finance function, incorporating the MA and his team (A).

> I need all of the relevant information. The wider scope stuff tends to come from the business side more than the finance side (J).

While the descriptive statistics in table 1 indicated no significant difference between the importance of accuracy and consistency in control as opposed to DM information, the qualitative results indicated otherwise:

> When examining financial results, you don't want any mistakes, but for planning and projects, I would sacrifice accuracy for timeliness (A).

> For analysis of results and accounts, accuracy is most important. If it's not accurate I'm screwed. For projects it would be less so because a lot of the time we're still figuring out our end-to-end models so it's about churning out your information very quickly. Accuracy would take a back seat to timeliness in these cases (D).

> Consistency is vital so that I can monitor progress month-on-month but for projects each one is individual and what you need for one may differ from what you need for another (B).

> Consistency of control information is very important as it makes it easier for us to decipher what the questions and issues are. The same format all the time is critical as it translates into the same format which I distribute to the various audiences. For projects, this is not so important (K).

These findings suggest that managers have distinct differences in what type of information they prefer depending on whether the information is for control or DM. This is discussed in section 6.7.1. These findings also contribute to the analysis of the effect of manager expectation on the role played by the MA as discussed in section 6.5.1 as well as the managers' apparent appreciation for the traditional MA, as discussed at section 6.7.3.

5.2.3 Low Importance for Control and Decision-Making

Statistically, aggregation was perceived to be among the least important of all of the characteristics, with little or no difference in its perceived usefulness in control information as opposed to DM information. It was considered significantly less important than relevance, reliability, accuracy and consistency for control purposes (refer to appendix I) and significantly less important than relevance, reliability and timeliness for DM purposes (appendix J):

> We need the background. We need the detail. The reality is that highly aggregated data is not that practical for the likes of me (K).

> Aggregation is important but it's very important that the background isn't lost (Q).

> I like aggregation for reference, but I need the detail as and when circumstances call for it (R).

There was comparatively little feedback in relation to flexibility and adaptability. As indicated at appendix I, it was considered significantly less important than relevance, reliability and accuracy for control purposes and according to appendix J, it was considered significantly less important than relevance and reliability for DM purposes. Most managers assumed a level of flexibility and adaptability within the system:

> I take it as a given. This is how we've set things up (H).

> It's important that the various elements of the system can talk to each other, otherwise the timeliness won't matter, the reliability you wont get and the relevance will be lost (F).

5.2.4 Summary

Ultimately, the managers questioned valued relevance and reliability above all else. Timeliness and scope were considered significantly more important for DM while the qualitative results revealed that accuracy and consistency were favoured more for control. Some managers were willing to trade accuracy for increased timeliness in a DM scenario. The most interesting feedback related to the lack of importance placed on scope by many of the managers. Aggregation was perceived to be comparatively unimportant in both control and DM information. Finally, flexibility and adaptability,

though not perceived as unimportant, was assumed to be a key requirement in all information and so generated little or no response.

5.3 RESEARCH QUESTION 2

What skills, attributes or competencies do managers perceive to be important in a provider of information for the following purposes?

    (a) Control

    (b) Decision Making?

The managers were asked to rate a selection of SACs in terms of how important they perceived each to be in their core provider of (a) control information, and (b) decision making information. Each SAC was rated on a scale of 1 to 5, where 1 equated to not at all important and 5 extremely important. A summary of the findings is presented in table 2 with further statistical analysis presented at appendices K and L. A detailed breakdown of the individual manager responses is included in appendix F.

5.3.1 High Importance for Control and DM Information

Ethics was perceived to be the most important SAC of the MA for both control and DM purposes. It was considered significantly more important than everything except honesty for control purposes (refer to appendix K) and it was considered significantly more important than precision, IT skills, team-skills, problem solving skills, financial expertise, creativity, impartiality, conservativeness and single mindedness for DM purposes (refer to appendix L).

Almost all of the managers rated honesty to be very or extremely important, indicating no difference in importance whether the information was for control or DM. It was considered significantly more important than impartiality, creativity, conservativeness and single mindedness for control purposes (refer to appendix K) and impartiality, conservativeness and single mindedness for DM purposes (refer to appendix L).

Just two managers, N and O, both sales managers, considered honesty only quite important:

> Honesty is important to a degree but so is using some cop on. Things can be hidden and moved around. Yeah, I think honesty is important but I want people to be practical about it (N).

Table 2: *Descriptive statistics of importance of SACs in providers of (a) control information and (b) DM information*

Skills, Attributes and Competencies of an Information Provider	Provider of Control Information		Provider of DM Information		Wilcoxon Signed Rank Results	
	Mean (Standard Deviation)	Rank	Mean (Standard Deviation)	Rank	Z	P Score
Ethics	4.83 (0.37)	1	4.72 (0.56)	1	-1	0.317
Honesty	4.44 (0.68)	2	4.44 (0.68)	3	0	1
Precision	4.33 (0.75)	3	4.33 (0.75)	5	-1.63	0.103
Sound Business Understanding	4.33 (0.58)	4	4.61 (0.49)	2	**-2.24**	**0.02***
IT Skills	4.11 (0.66)	5	4.22 (0.71)	6	-1.41	0.16
Financial Expertise	4.06 (0.91)	6	3.94 (0.91)	9	-1	0.317
Interpersonal and Communications Skills	4.00 (0.58)	7	4.39 (0.59)	4	**-2.33**	**0.02***
Problem solving and Analytical Skills	3.83 (0.96)	8	4.00 (1.00)	8	-1.73	0.084
Team-skills	3.78 (1.03)	9	4.22 (1.41)	7	**-2.53**	**0.01****
Impartiality	3.67 (1.20)	10	3.50 (0.97)	11	-1.34	0.18
Creativity	3.22 (1.13)	11	3.72 (1.11)	10	**-2.25**	**0.02***
Conservativeness	2.33 (0.94)	12	2.06 (0.94)	12	-1.89	0.06
Single-Mindedness	1.94 (0.97)	13	2.00 (0.97)	13	-1	0.317

*Significance levels   *0.05   **0.01*

5.3.2 Key Differences between Control and DM.

The results in table 2 indicate that 4 of the SACs were considered to be significantly more important for DM than for control: sound business understanding, interpersonal and communications skills, team-skills and creativity.

A sound business understanding was considered to be among the most important of the SACs for both control and DM:

> I can't express how important a sound business understanding is. In my view it's the difference between a useful accountant and an accountant whom you merely put up with (N).

> They have to understand what they are looking at, otherwise they will bring no value (J).

It was considered significantly more important for DM than for control:

> They've got to show their understanding of what's behind the figures. That's absolutely critical for projects (C).

> They may get by without a huge business understanding for the day-to-day stuff, but for DM and projects, a sound business understanding would be critical (P).

The weight of qualitative evidence suggests that the managers in question were in favour of their MA exhibiting strong interpersonal skills generally:

> It's important to be able to sit down in a meeting and share information, not just mill through spreadsheets (C).

> People will tell them things. People will involve them. It's like anything. If people can communicate with them and they feel a rapport with them they are going to get on with them. It's as simple as that... the guy I have here gets on with everyone and nobody hides anything from him. He is seen as one of us (G).

Again, table 2 indicates that this SAC is considered significantly more important for DM and the qualitative data substantiate this:

> If the system is going to be useful in terms of making any decisions, it's important that communications skills are strong in order to facilitate this (K).

> We would encourage everyone here, including the accountant, to be open. It's important that they are not afraid to speak out and they're not afraid to give opinions, particularly in a project situation (D).

Managers who rely on their MA more for DM information appear to have higher expectations in terms of interpersonal and communications skills. This is analysed at section 6.5.1.

Many of these sentiments were echoed in relation to team-skills, with most managers seeing the two sets of competencies as mutually helpful. As indicated in table 2, team-skills were revealed to be significantly more important for DM than for control:

> I would see team-skills as important, particularly in terms of breaking from that old traditional role... being able to challenge in a helpful and constructive way is where I would like to see them developing more (M).

> Interaction with people is key and this is no more important than in a company wide DM situation (N).

> Team-skills are key here. If they can't work as part of a team, they won't work out (H).

None of the issues discussed with the managers were as divisive as creativity. As indicated in table 2, it was considered significantly more important in a DM scenario:

> In a project sense creativity goes up even further in terms of coming up with new ideas of presenting data or new ways of analysing data for a project (K).

> The key for me is getting the right balance. I want them to be conservative when they're generating my monthly reports but I don't want them to be blind to new idea's or improvement (E).

One manager even went so far as to say that he would utilise his MA a lot more if they were a little more creative:

> If these guys were a little more creative, a little more idea driven, I'd use them more (N).

However, some managers attached little or no importance to creativity in any capacity in their information provider:

> Creativity is not at all important to me. There's no room nor necessity for it (B).

> Creativity is not a desired quality in an accountant (R).

Again, those managers valuing creativity more were those who relied on the MA for DM information as well as control information. This contributes to the discussion on manager expectation at section 6.5.1. Managers' differing expectations of their MA

as an information provider depending on whether they are providing DM as opposed to control information are discussed in greater detail at section 6.7.1.

5.3.3 Qualitative Results

The statistical results relating to two of the SACs; impartiality and problem solving and analytical skills revealed little, but the qualitative results proved more interesting.

The weight of evidence suggests that impartiality, though not a favourite of any manager by any means, was still largely appreciated as a characteristics of the MA. As summarised in appendix F, nine managers considered it extremely or very important in a contributor of control and DM information and a further five considered it quite important. It was considered significantly more important than conservativeness and single mindedness for both control and DM (refer to appendices K and L, respectively). Many managers appear to still value the role of the MA as the unbiased, hard faced, black and white contributor:

> The financial numbers cannot afford to be skewed in favour of a certain standpoint, I value impartiality in that sense (J).

> I like them to be able to stand back and make a call on the numbers (N).

One manager however did not always fully value such impartiality:

> Impartiality is important as a benefit, but sometimes it can be a pain. You want them on your side a bit more sometimes… because sometimes they don't understand the whole implications of what they say, you know something is bad but it will recover next month, it doesn't need to be brought out in the open, but they always insist on bringing everything out in the open (G).

This is further discussed in the context of managers' differing expectations of the MA in section 6.5.1 and the general appreciation for the traditional MA as discussed in section 6.7.3.

Again, problem solving and analytical skills achieved a comparatively low importance rating according to table 2, yet the qualitative results reveal that some managers were particularly interested in this competency. Manager G cited problem solving and analytical skills as a key trait in his preferred MA:

> I am getting bypassed more and more on the day-to-day stuff. They go straight to [the MA] now and that's where I want him to be. That is central to his role (G).

In Manager H's case, his Enterprise Resource Planning (ERP) system generates much of the monthly data. The MA's responsibility is in further analysis and effective use of this data. This requires strong problem solving and analytical skills, and cross training and functional sharing contributes to this:

> The system "provides" the information. A good MA analyses it constructively and contributes something (H).

Manager M, like Manager G, welcomed problem solving and analytical skills as a way of diverting more of his managerial work to the MA:

> They have got to be able to determine the issues and deal with them. It shouldn't be up to me (M).

Though the statistical results indicated no difference in its perceived importance between control and DM, most of the managers concurred that there would certainly be a greater demand for their problem solving skills in a decision making situation:

> The bar would be raised most definitely in terms of problem solving and analytical skills with regard to DM information, particularly the problem solving skills (C).

> My experience is that for DM and projects problem solving would certainly raise itself as key (D).

5.3.4 Low Importance

As appendix F indicates, some managers did, to some extent, value conservativeness in their information provider. The typical responses in these cases appeared to relate much more to the MA's controlling role:

> I like finance to be a little more conservative. It can be a good push back on the business people (D).

> They have to play by the rules that they are financially under and that dictated a certain degree of conservativeness which is unavoidable (Q).

A significant proportion of the managers interviewed viewed conservativeness as not at all important, for the simple reason that they did not consider it necessary in order to provide good quality control or DM information.

As indicated in table 2, single mindedness was the least valued skill or competency in any information provider of either control or DM information. In the main, these managers viewed single mindedness as useful in the context of getting a job done and meeting requisite deadlines, but wholly detrimental in the context of their wider contribution:

> I prefer open mindedness. Where I see single mindedness as important is where I expect them to fight for something that they know is important or they know is wrong. If they see me breaking any rules, I want them to push back on me, but I would much rather them to be open-minded from the point of view of listening to what the business has to say (P).

> I want them to be driven to get a job done. Single minded in terms of meeting deadlines but I don't want that single mindedness to spill over into their contribution (G).

> They need to stand over the information but they need to be open to advice and discussion (K).

Some managers saw nothing positive in single mindedness as a skill or competency:

> I would strongly contend that this is not an admirable quality (E).

> I see single mindedness and a good business understanding as completely contradictory (J).

Just one manager saw single mindedness as an entirely positive characteristic, considering it very important in providers of control information and extremely important in providers of DM information:

> I see single mindedness as edge. It's a leadership capability, the ability to fight a cause, it's what makes managers (H).

5.3.5 Low Rate of Response

The managers questioned had few opinions on IT skills and financial skills. Undoubtedly, managers valued them and both were assumed to be natural competencies of the MA. As indicated in appendix F, IT skills were considered very

or extremely important by fifteen of the managers. Just three managers considered IT skills only quite important in any case, two of which are quoted below:

> IT skills are a core competency to work here anyway. They don't have to be any better than anyone else. They should just be good enough to make their own work efficient (D).

> I don't care how good they are as long as they do their job (J).

The majority of managers took financial expertise for granted and appeared to be surprised to be asked to rate its importance:

> It's their job (A).

> It's what they're employed to do (B).

> It's what they're trained for (C).

Some managers did appreciate such skills slightly more:

> In my opinion, when any production guys wants a financial guy, he wants them for a particular reason, because they haven't got the information they need to do something and we rely on finance and their expertise to produce whatever it is we need... our priorities are very much our efficiencies, our costs and our spends... the MA plays a vital role in watching these for me (J).

> He needs to understand what to report, how to report it and what rules we have to play with (D).

5.3.6 Summary

Ethics was considered the most important SAC in providers of both control and DM information. Honesty was also considered extremely important in providers of both. Sound business understanding, communication and interpersonal skills, team-skills and creativity were considered significantly more important in providers of DM information than in providers of control information, though the qualitative results did indicate that a sound business understanding and communication skills in particular were valued in providers of control information also. Responses in relation to creativity varied widely with some managers seeking it out in their MA, while some saw no place for creativity in their MA. Impartiality emerged from the qualitative findings as a SAC valued by many managers while problem solving and analytical skills were also valued by managers, particularly those who were keen to divert some of their managerial activities to the MA. IT skills and financial expertise

were assumed to be key competencies of the MA. Finally conservativeness and single mindedness were the least valued SACs in providers of both types of information.

5.4 RESEARCH QUESTION 3

To what extent is the MA providing information to managers for control and/or DM?

The answers to this question varied significantly from company to company but they may be grouped into companies in which (i) the MA is perceived to provide control information only, or (ii) the MA is perceived to provide information for both control and DM.

5.4.1 The MA Provides Information for Control Only

According to Manager A, the role of Finance in control, and the role of finance in DM, is discharged by two very different people. The former position is occupied by the MA with the assistance of the lower levels of the finance team, and the latter is occupied by the financial controller:

> I think you have to distinguish between the different roles within the finance function. It's not a homogeneous role. There is a machine there producing information and you want those people to be moderately conservative and they don't need to be that creative. On the other hand, the financial controller, who is on that team helping to make plans and make decisions, you want him to be a bit more radical in his approach and thinking, and a bit more creative (A).

Manager E echoed much of this sentiment. The MA, with the assistance of some lower level staff, was concerned with meeting month end requirements, rolling up costs and generating reports on monthly performance. Anything additional to that required the input of the financial controller:

> … our financial controller is probably one of the most respected men in the company… he would be hugely respected and he would have a huge knowledge of the business (E).

The structure of Manager E's organisation is such that the Irish operation does not appear to have a great deal of DM autonomy. It generally follows orders from their

German head office. Managers A's organisation is also a subsidiary of a foreign owned multinational.

As examined in section 6.4.4, a key issue worth noting in both of these circumstances is the general lack of active involvement of the MA in the running of the business. Even their involvement in control is limited to 'reporting' information only.

Manager I indicated that his MA, indeed his company's finance function in general, played little or no role in providing information for DM. He explained that he relied heavily on the MA for control information. He worked quite closely with him on yields, efficiencies and spends, but he did not utilise him at all in a DM scenario. Any additional information required to assist in DM was gathered by the manager himself with the assistance of his direct reports on the factory floor, the MA contributed routine control information only

Manager L was adamant that the MA did not have a sufficient understanding of the political process that his organisation operated within. The only role occupied by the MA was one of controlling and reporting the funds and that is the only area they were expected to be involved with. Manager L described how the MA did not understand or appreciate the job that the manager was trying to do, his controlling input took over. In other words, they could not both control the organisation, and contribute to the organisations DM process.

Managers P and Q, both managers of bulk or secondary bulk pharmaceuticals companies, spoke of their MA not having a strong voice in any respect, but certainly not in a DM capacity. Manager P, in particular, very much attributed this to the pharmaceuticals sector in general:

> ... I don't see them particularly assisting us, or being involved in DM. I would see them having quite a low profile to be honest. Things are much more technology led here... but when it comes down to deciding on a piece of plant the cost accountant may be involved in generating some scenario's but wouldn't make any of the decisions (P).

When asked if he thought the MA could reposition himself into a 'business partner' role where he was more influential and had a greater impact on the business, he replied:

> I have no doubt but that they can. And I am sure that they are, in your Smurfits and Diageos, but not in this sector (P).

Managers L, P and Q specifically cite their industries' as having a key impact on their MA's role. The association between industry and the role of the MA is discussed in detail in section 6.4.1.

Manager Q was critical of the time spent on corporate reporting:

> I have no doubt but that the finance department here are working to absolute capacity… but it's all reporting up and up and up and out… (Q).

When asked if he thought that the MA could play a more involved role in the future if he was afforded the opportunity, he replied:

> It's hard to know if they would be pushed at a corporate level to add value, and even if they were afforded the opportunity now, it would be hard to change the culture. I interact with site services, quality etc all the time but finance, they could be on Mars for all I know. They might be keeping information flows moving but they are certainly not helping to drive down costs or helping us to monitor progress. They are not providing a service to us at all (Q).

Many of these managers resort to preparing their own management accounting information. Manager A prepares his own Key Performance Indicators (KPIs), Manager E analyses his own variances, Manager Q investigates his own yields and Manager L prepares his own budgetary information. These managers specifically cited the poor timeliness and relevance of the information provided by their MA as driving them to prepare their own information. This is discussed again in section 5.4.2 and in greater detail in the context of manager independence from the MA in section 6.5.4.

5.4.2 The MA Provides Information for Control and DM.

Conversely, there is a group of managers whose MAs provide information for control and DM. Manager B perceived no problems with the MA controlling and contributing to projects and DM:

> It is a very logical process. From the outside looking in it might look like a possible bone of contention, and in some places it might be, but not here, it's understood that markets can't be built without money and this is all discussed well in advance during budgeting and forecasting. It depends on how it's managed and it's different in different companies (B).

A scenario was put to Manager B in which, in a meeting, she announced that she needed to spend $300k on something. She was asked if she would anticipate a 'typical' reaction from her MA, Manager B replied:

> No, because you would never do that. If I need to spend a large amount of money on something, I have sat down with the MA to come up with that sum and as well as that I rarely if ever have cause to need funds that I haven't already discussed with finance earlier in the budgeting and forecasting process. Everything is open and communicated in advance (B).

Manager C was similarly welcoming of the MA playing a dual role:

> I mean, we use the term consensus forecasting, our plans, budgets and forecasts are all set by consensus. And as regards the projects… If it's a win we all win, if it's a lose, it doesn't come down to 'oh well, the MA came up with the numbers'. It's a pure team effort. If you're sharing the win, you're sharing the loss and I think they're as capable as anyone of getting stuck in, they can put on their project hat and more and more I see them enjoying that role (C).

Manager D, a manager of an extremely successful Irish subsidiary of a multinational computer software company was adamant that the MA can and should partake in both roles:

> In fact, if we can't have that, than we run into difficulties. The day-to-day stuff gives them the knowledge of how the P and L works and how the business fits in. I want that input on a project or DM team. I want to know what we have to sacrifice on one line to gain on another line etc so I want them there (D).

> Finance here are a support function, not a controlling function. And I think that's an important difference between this company and a lot of places (D).

Manager D did qualify this:

> I see it as one of these things where they are responsible for reporting the financials but they're not accountable. Day-to-day they don't own the business, they are reporting on a function (D).

Manager G, shared the views of Managers D:

> We use the term business partner here for our higher-level accountants but they wouldn't feel that sense of ownership and they wouldn't get the same grief that I would if things are going wrong, really once they report the information, the buck stops with me (G).

In this way the MA is not perceived to be an equal stakeholder in decisions. This is discussed in more detail in section 6.7.7.

When pushed further as regards whether or not Finance are prevented from being a true business partner because of the watchdog function, Manager G replied:

> It's not like the MA is seen as a party pooper ogre who won't let us spend money or invest in creativity or improve things, but than you might be asking the wrong person, this company is reasonably successful. While they do manage things reasonably tightly, they still have a bit of money there, you know, if you have a good idea and its going to cost you 500,000 dollars and you can justify it you will get that money (G).

This introduces the potential issue of the effect of a company's financial security on the role of the MA as discussed in section 6.4.3.

Manager H described the advantages which a MA offers in this role:

> ... accountants are motivated by money and this often drives them to see opportunities others might miss (H).

He finished by saying:

> The number cruncher keeping the books, we don't need that guy any more (H).

Manager J, a manager of an organisation which has recently been taken over, maintained that the MA was certainly more comfortable providing control information:

> They are getting a bit more proactive. But there is a certain guard dog aspect to the finance function, which is natural. She does get involved to a larger extent now but she is still a bit of a purest. Finance people tend to be purists... it's almost the controlling side of DM (J).

Manager K, the manager of an Irish subsidiary of a multinational components manufacturer which enjoyed success in the past but is now coming under increasing competitive pressures from overseas manufacturers, spoke of the role held by the MA:

> The advantage that the accountant brings is that they bring that harsh perspective ... I think their level of detachment allows them to just come out with exactly what the figures say, almost like a 'worst case scenario' and I find that very useful. You might not agree or go with it, but its good to have it (K).

When asked if he perceived the MA's role as changing in light of the organisation's changing circumstances he replied:

> They are definitely getting more of a voice now because our cost position has become much more concerning... there is definitely a correlation between the bad years and an increase in their voice... In the better years the core issue would have been availability of product that utterly superseded the finances. In times like that, the MA would not have had a great voice because what they said about the finances held much less business priority. It was a lot easier in times like this to override them (K).

When asked what the MA was expected to contribute, Manager K replied:

> They are never really brought in for any creative contribution. They are brought in because they give us that base line financial angle (K).

Manager R's background is somewhat similar to that of Manager K. His organisation is an Irish subsidiary of a US multinational which manufactures computer components. Manager R maintained that to date his MA had little input to any of the DM processes within the organisation, but he did concede that their involvement in projects has increased in recent years as the organisation has become more susceptible to competitive pressures and therefore more cost conscious.

He described how their role to date has been little more than generating reports and that he saw that role declining, and being replaced by more effective control:

> The IT systems churn out the data. I imagine my involvement with them [the MA's] on a day-to-day basis will be probably more in terms of cost justification and actual cost control (R).

The competitive pressures faced by the organisations may be associated with the MA's role. This is discussed in section 6.4.2.

When asked if he considered that the MA could be an equal member of the DM team, Manager M replied:

> There is a core financial analysis role there that we will always need accountants for that. A certain amount of analysis is necessary and we need them to do that. The added value part of that is where we can have improvements but we can never have an accountant who sees himself in the management role, he needs to recognise that the core analysis role is necessary. They need to retain their traditional role because they have to do it, but do it better, add more value, with better communication and initiating change (M).

When asked why the MA could not be treated like a manager, manager M replied:

> They are not accountable. My ass is on the line. I am not expecting the MA to own any of the processes or anything but they could play a bigger role in identifying issues. They are not in anyone's camp. They have a greater capacity to talk openly with these guys.

Manager N liked the idea of his bringing this controlling influence to the DM process:

> At the end of the day, the accountant is there to make sure that you are going to make money, he's there to count the bucks. Even if he is getting better at adding value, I still want him to play this role. I need him to hold the reigns. He has to be impartial... he helps me make decisions, he helps me make a call on things (N).

Manager N believed that the MA could most definitely be a business partner, but bringing that controlling influence everywhere he went and that is the role that Manager N wants the MA to play, he considers that this opportunity will not be exploited to it's full capacity until such time as the MA displays a greater understanding of the business.

Both managers M and N were adamant that the controlling role needs to maintained. Both managers appeared to want better quality controllers with some of this controlling contribution being utilised in a DM context. They did not cite any conflicts in this scenario, but they did cite the MA's failure to grab the initiative and take on this role.

Manager O is a sales manager in a very successful biotechnology company at quite an early stage in their lifecycle:

> Everybody has to be very clear about what our vision is, what we're going to do about it, how we're going to get there and this must be common amongst everyone. We have to achieve this and work and be innovative and solve the problems of the business within those constraints and we all have a duty as part of the management team, and this goes for the MA in the same way as anybody else, to make this happen. She is the business partner (O).

Manager O pointed out that his company's specific circumstances contributed to this:

> This is probably quite specific to the Biotech industry. I have seen this in other Biotech companies. We are in set up, we are out there trying to raise money on the one hand, spend money on the other hand, create a good product, generate customers, all as part of a small integrated team, it's a different nature. You go to some of your major manufacturing companies and I'm sure the accountant plays a very different role there (O).

When asked if he considered the MA to enjoy this multitasking role, Manager O replied:

> I think they're reluctant, but once they get more involved in the process, they are more comfortable with it. They have a total lack of self- confidence, they don't have the 'shmooze' that sales and operations people have (O).

These managers also appeared to be very reliant on their MAs. They source all of their management accounting information from the MA. When asked if they would prepare any such information themselves, manager D and G replied:

> Absolutely not, that's what they're paid for (D).

> I wouldn't know where to start (G).

5.4.3 Summary

Section 5.4 dealt with the open-ended third research question in which managers were asked what role their MA played in the organisation. These responses were purely qualitative and the findings are categorised into those managers whose MAs provide control information only and those whose MAs provide control and DM information. The results highlighted some contingent variables which may influence the role played by the MA; industry (6.4.1), level of competition (6.4.2), financial security (6.4.3), the manager/ MA relationship (6.5.3) and the extent of manager independence from the MA (6.5.4). These results also introduce some findings in relation to the 'conflict' issues, which is discussed further in section 5.7. Section 5.4 contributes significantly to the basis of the framework through which all of the findings will be interpreted and discussed in chapter 6.

5.5 RESEARCH QUESTION 4

How effective is the MA perceived to be in providing useful information?

Each manager was asked to rate how well their MA performed in terms of providing information that reflects each of the previously discussed characteristics. They were asked to rate their MA's general performance on a scale of 1 to 5, where 1 equated to bad and 5 excellent. The managers' responses were based on their perceptions of the characteristics of their MA's information in general. Table 3 provides a comparison of these responses compared with the responses in relation to characteristic preferences at RQ1. Further statistical analysis of these results is presented in appendix M. A detailed breakdown of the manager responses is included in appendix G.

Table 3: *Mean rating by managers of MA's performance with regard to information characteristics compared with mean importance of each characteristic*

Characteristic of Information	Mean Rating of MA Performance (Standard Deviation)	Control Information		DM Information	
		Mean Importance per RQ1	Expectation Gap	Mean Importance per RQ1	Expectation Gap
Accuracy	3.78 (0.71)	4.44	-0.66	4.06	-0.28
Consistency	3.78 (0.71)	4.00	-0.22	3.56	+0.22
Reliability	3.72 (0.99)	4.50	-0.22	4.56	-0.84
Timeliness	3.72 (0.93)	3.56	+0.16	4.28	-0.56
Aggregation	3.33 (1.05)	3.44	-0.11	3.56	-0.23
Relevance	3.22 (1.36)	4.78	-1.56	4.89	-1.67
Flexibility and Adaptability	3.00 (1.11)	3.89	-0.89	3.89	-0.89
Scope	2.67 (0.94)	3.11	-0.44	3.78	-1.11

+ above expectation   - below expectation

As table 3 indicates, the MAs are perceived to perform better at accuracy, consistency, reliability and timeliness and comparatively worse at aggregation, relevance, flexibility and adaptability and scope.

5.5.1 The MA's Stronger Characteristics

The descriptive statistics in table 3 highlight accuracy, consistency, reliability and timeliness as being the MA's stronger points, all of which were rated as significantly stronger than flexibility and adaptability and scope (refer to appendix M). Generally, the MA scored higher on those characteristics perceived to be more important in control information. This is discussed in section 6.7.2. The qualitative findings,

however, appear to focus more on the weaknesses perceived by managers, even within these ostensibly stronger characteristics.

Accuracy

Accuracy was the characteristic for which the MA scored highest and that which most managers identified as one of the particular strengths of the MA:

> I haven't been burnt on figures in a very long time (D).

> They're as accurate as the system allows them to be (E).

> I don't need them to be any better (F).

Despite this, on average the MA performed below expectation with regard to accuracy, particularly in relation to control information, indicating just how important managers perceive accuracy to be:

> I think any inadequacies here are down to the system. Garbage in. Garbage out. While accuracy is probably one of their strengths personally, there are just too many inputs to the system (K).

Manager O maintained that they were better at providing accurate day-to-day information, for the simple reason that he felt that they were more comfortable with this data. Just one manager, manager L, rated his MA as fair at producing accurate information. Again, in this case it was the system that was being called into question as opposed to the MA personally. However, manager L did hold the MA responsible due to his poor training and explanation of the system to other staff members. Manager P held similar reservations as to the accuracy and reliability of the information generated by the system. He too, held the MA responsible, due to his lack of understanding and his lack of attempts to develop a better understanding.

Consistency and Reliability

The MA scored comparatively well in relation to consistency and reliability:

> In terms of routine control information, they are excellent. They have templates. They roll them off every month. I mean it's not rocket science (A).

However, the qualitative findings indicate that some managers were not altogether satisfied with the consistency or the reliability of the data they received, particularly in a DM capacity. These concerns were largely in relation to the systems that the MAs were working within and in many cases the MA was criticised for his apparent lack of understanding of the system. This is discussed at section 6.7.4:

> Sometimes if you ask one accountant for a figure and you ask another accountant for the same figure, due to the complexity of inputs and outputs, I would often get different answers. It is often a case of taking the data out of the system in its raw form, compiling it and aggregating it in the way I want because it might not always be consistently or accurately done (K).

> I cannot be confident that all of the information I need is reflected on the system. People's understanding of the system and what they need to do on it is poor as a result of poor training and poor communications from finance (L).

Timeliness

As table 3 indicates the MA scored comparatively highly in relation to timeliness. They exceeded manager expectations in respect of the timeliness of their control information but underperformed in relation to DM information:

> They're very good, if there's a delay, they'll always fill us in, explain why and give us a time (D).

> They work very hard. We are aware of the massive time constraints they are under (E).

> I have never had a problem where I didn't have a piece of information when I needed it (I).

> We have a very good system set up and timeliness is dealt with (M).

Most managers attributed the lack of timeliness to corporate reporting requirements and general excessive workload:

> We are part of a bigger corporation and there is always somebody messing about with timelines and demanding things from them. Group reporting can take over... and their usefulness to me diminishes when they have to fulfil so many reporting requirements (K).

> While I would rate the timeliness of their information as good, I am aware that they are subject to heavy reporting requirements... and that is what I think is one of the failings of the MA, the information doesn't come back to me in time, it's very rarely real time. It's what stops us being proactive a lot of the time (J).

In some cases this was driving managers to source their information elsewhere.

> They [MAs] just don't have time. I need the information daily so I rely on my line supervisors to provide it (Q).

Manager O indicated that he would have to start learning more about his contract pricing so that he could start generating these figures himself as opposed to relying on the MA to provide it. As discussed in section 6.7.5, the lack of timeliness is driving many managers to source their own information.

5.5.2 The MA's Weaker Characteristics

As revealed in appendix M, the MAs were perceived to perform significantly worse in relation to flexibility and adaptability and scope than in their stronger characteristics of accuracy, consistency, reliability and timeliness.

Lack of flexibility was often identified as a distinct weakness in the information produced by the MA:

> The system itself is pretty flexible but the people aren't always. They like to give fixed reports every month in a certain format. It can take a little time to get what you want out of them (K)

> I can't ascertain what makes up the numbers... There is a tendency for them to produce spreadsheet upon spreadsheet upon spreadsheet (R).

As summarised in table 3, scope was the characteristic on which the MA achieved the lowest rating. As indicated in appendix G, just four managers assessed their MA to be 'very good' at providing broad scoped information, though this appears to be as a result of comparatively lower expectations on the parts of these managers in respect to the breadth of scope of information:

> On general stuff she was good, but on pricing and DM, she didn't have the same insight (O).

> This would be a distinct weakness. They lacked the business understanding and the commercialisation (A).

> I just get the financial stuff off them, nothing else (J).

> At times they throw me out additional stuff. The purchasing department score better on this though. It's more complete in terms of having different facets. The MA wouldn't have the background or the resources to produce much more than they produce (R).

> Accountants care only for numbers. They don't understand that I need to go into the [counsel chambers] and I will be questioned on this stuff and I just can't hold up a spreadsheet. I won't be asked about numbers. I'll be asked about issues, but accountants do not appreciate what is important to me in terms of informational requirements. We ourselves have to marry up what the numbers say with our other information. They would not think of this (L).

These results are surprising, given the managers apparent lack of interest in broad scope information as described at RQ1. This is addressed in section 6.4.1 in discussing how managers' expectations and managerial strength affect the MA's performance.

Though the MAs' scores with regard to relevance were not significantly worse than their stronger characteristics, relevance is the characteristic which, according to table 3, achieved the largest expectation gap:

> They tend to miss what I am getting at sometimes. They are always trying to get it back to the nearest numbers... my experience of accountants is that they made things a lot more rigid for us and that is extremely difficult to cope with in a political environment (L).

> The lateness just eliminates the relevance (Q).

As described in section 5.4.1, this is driving many dissatisfied managers to preparing their own management accounting information.

Manager P very much attributed the score on relevance to be directly related to the industry in question, which affects the managers' point of focus (refer to section 6.5.2):

> I think it depends so much on the business. If you take the pharmaceuticals technologies sector, a lot of the time we don't have options as to whether we spend it or not so it's not considered from a financial perspective. In a lot of these high technology businesses it's a case of let's make it, let's make it well and let's make it on time and as time moves on we'll have to start considering the costs. Now I would say that that attitude relegates the accountant to a somewhat secondary role and I would say that that phenomenon is extremely prevalent in this industry... I would certainly say that accountants get their day once things become tighter financially (P).

Other managers, though somewhat satisfied, did point out that it could be better if they had more time available to them:

> There is a huge management pack produced every month, it's not all relevant to me, but each bit is relevant to someone (J).

> There is a sense that she does the best she can given the time constraints she's under. I truly believe she would be up at the maximum if she had the time (O).

Two managers specifically rated their MAs as very good at producing relevant information for control purposes but bad at producing the less routine information for DM:

> With regard to the core financial information or results, they are very good, but they would not have the insight into the business, which would allow ancillary information to be prepared. The financial controller would fill that gap (A).

> They are very good with the facts but poor with everything else (C).

Manager H was satisfied, considering his MA as good at producing relevant information but indicated that it needs to be improved and that this requires an active effort on the part of management as well as the MA:

> We're only getting there on this. We have managed to work well with SAP on drilling the reports out of the system through the knowledge of the finance team. Some stuff was coming out a few years ago which was irrelevant but we have worked hard on it and it often has to be revisited but it is quite good now (H).

Any managers who rated their MA as very good or excellent in terms of providing relevant information attributed this entirely to the strong communication channels between the MA and the manager, as well as the clear direction from management as to what was required. These communication channels contributed to such clear direction to the MAs that they produced more relevant information:

> We give such clear direction here and finance are so involved. It's such a holistic process. No information is generated in isolation. We don't let finance sit in isolation (D).

116

MAs achieved comparatively low scoring in terms of aggregation, though not significantly worse than the MA's stronger characteristics. The qualitative results did reveal that some managers were dissatisfied with the MAs in this regard:

> I see too much information (A).

> What they think I need to see and what I need to see as I learn more and more about the figures is quite different. It's good to have to context around it but I don't see the context changing all that much. I sometimes turn to these guys and say every month we spend days and days on this stuff, how can we reduce it (D).

> I get too much junk, but it's driven by corporate who need big packs. I get this spreadsheet every month with 17 tabs on it and I look at none of it (J).

> I get tonnes of data but little information (P).

> I get more detail than I need (R).

In general the excessive data was attributed to excessive group reporting, which managers were expected to rely on for internal management purposes.

Some managers were comparatively less dissatisfied with the MA's performance in this regard:

> We have a good system here, we produce summaries and if I need the detail I pick up the phone (B).

> We have worked out what I need to see (N).

One of these managers did not perceive such aggregation as a strength at all:

> It's too aggregated. It falls down because I need to see behind the figures. Often the information is too aggregated. That second level is important and often it is lacking. I might see that a certain figure has decreased on last month and I ask why and they don't know (G).

5.5.3 Summary

Managers' responses to question 4 indicated a general dissatisfaction on the part of managers with the information produced by their MA. This is discussed in greater detail in section 6.7.4. MAs performed comparatively well in relation to accuracy, consistency, reliability and timeliness, exceeding managers expectations in relation to the timeliness of control information and the consistency of DM information. The

qualitative findings indicate less satisfaction with these characteristics. The MA performed particularly poorly in relation to relevance, flexibility and adaptability and scope, falling dramatically short of manager expectations in all cases.

5.6 RESEARCH QUESTION 5

To what extent do management accountants display the skills, attributes and competencies associated with providers of useful information?

The managers were asked to rate how well their MA rated in terms of possessing each of the previously discussed attributes, skills and competencies. They were asked to rate their MA's general performance on a scale of 1 to 5, where 1 equated to bad and 5 excellent. Again, the managers' responses were based on their perceptions of the attributes, skills and competencies of the MAs in general. Table 4 provides a comparison of these responses with the responses in relation to the managers' perceived importance of the various SACs. Further statistical results are presented in appendix N. A detailed breakdown of manager responses is included in appendix H.

As indicated in table 4, the MAs received the highest scores in relation to ethics, honesty, IT skills, precision and financial expertise. They exceeded the managers' expectations in the case of honesty, IT skills and financial expertise and fell marginally short of expectations in respect of ethics and precision. Single mindedness, conservativeness and impartiality were three characteristics which were not perceived as important by the managers questioned. However the MA exceeded expectations in all three cases, despite receiving comparatively low scores in single mindedness and conservativeness, which is reflective of the managers perception of the importance of these two characteristics. The MA scored comparatively poorly on interpersonal and communications skills, sound business understanding, creativity, team-skills and problem solving skills, performing below manager expectation in all cases. The MA's poor score in relation to these skills is discussed in section 6.7.4.

Table 4: *Mean ratings by managers of MA performance with regard to skills, attributes and competencies compared with mean importance of each*

Skills, Attributes and Competencies	Mean Score (Standard Deviation)	Control		DM	
		Mean Importance	Difference	Mean Importance	Difference
Ethics	4.67 (0.58)	4.83	-0.16	4.71	-0.04
Honesty	4.56 (0.60)	4.44	+0.12	4.44	+0.12
IT Skills	4.33 (0.58)	4.11	+0.22	4.22	+0.11
Precision	4.22 (0.92)	4.33	-0.11	4.33	-0.11
Financial Expertise	4.17 (0.60)	4.06	+0.11	3.94	+0.23
Impartiality	3.94 (0.91)	3.67	+0.27	3.50	+0.44
Problem Solving and Analytical Skills	3.44 (0.90)	3.83	-0.39	4.00	-0.56
Team-skills	3.11 (0.99)	3.78	-0.67	4.22	-1.11
Single Mindedness	3.11 (0.81)	1.94	+1.17	2.00	+1.11
Sound Business Understanding	3.11 (0.94)	4.33	-1.22	4.61	-1.50
Conservativeness	2.78 (2.78)	2.33	+0.45	2.06	+0.72
Interpersonal and Communications Skills	2.72 (0.87)	4.00	-1.28	4.39	-1.67
Creativity	2.44 (0.90)	3.22	-0.78	3.72	-1.28

+ above expectation   - below expectation

5.6.1 The MA's Stronger Skills, Attributes and Competencies

Ethics and Honesty

The findings suggest that the MAs in question excelled with regard to possessing sound ethics. Just one manager, Manager C, scored his MA as quite good. Further probing revealed that there was no particular reason for this low score. The MA merely had no opportunity to prove himself any better than this. Similarly, the weight of evidence suggests that the MA was considered extremely honest in the carrying out of his work. The MAs scored significantly higher at ethics and honesty than at impartiality and all lower rated SACs (refer to appendix N). Manager R explained that one of the advantages that the MA had over his nearest information providing competitor, the materials and purchasing department, was their honesty and impartiality and absolute absence of any agenda of their own. However, such honesty was considered, in some cases, to be excessive and often detrimental to their perceived usefulness. This is an example of the manager 'looking for the best of both worlds' (refer to section 6.7.6):

> They are sometimes too honest. They always like to do the right thing, often to the detriment of creativity… or even a quiet life. Sometimes you need time to sort things out, but your accountant doesn't always give you that time, they want everything out in the open (K).

> Honesty is excellent but they can be too bloody honest. if they could combine honesty with a bit of cop on. Sometimes not everything has to be brought to the table each month. Things can be parked for a while, particularly when we know that they will go away and will be rectified the following month but they insist on bringing everything to the fore (N).

> I would say that this is the one thing that they lack, in a business context. Sometimes you don't want everything aired at a meeting but they bring everything to the forefront. Often, that is appreciated by the other party. They appreciate the honesty and the openness, they often find it refreshing and it can have a good fallout and lead to us carrying more weight but I do find that they just lack a little savyness in terms of playing their cards close to their chest. The absolute truth has to be brought out at all times (O).

> Some things are better left unsaid and sometimes being the data driven people that they tend to be, they tend to want everything out in the open (G).

Financial Expertise and IT Skills

As appendix H summarises, sixteen managers rated their MA as very good or excellent with regard to financial expertise, the remaining two rating them as quite good, but as good as they need to be. Their managers generally perceived the MA's financial expertise to be strong. Similarly, the MAs in question were perceived to excel with regard to IT skills. The managers performed significantly better at financial and IT skills than at problem solving and all lower ranked SACs (refer to appendix N).

Precision

Generally, precision was identified as one of the MA's strengths. Such precision was largely appreciated, given that seventeen managers rated precision as very or extremely important for control purposes and fifteen rated it as very or extremely important for DM purposes. One manager, however, viewed his MA's precise nature to be sometimes excessive:

> They can be too bloody precise sometimes. I've had them correcting me in a meeting if I round something to the nearest thousand (G).

Another manager appreciated the precision but suggested that it is skills like these which may prevent them from developing further:

> The most useful thing I find about them is their attention to detail. I can worry about the bigger picture because they are working on finer details and the systems issues and this is valuable to me. They love implementing rules and they're good at it. When we get to the big picture I feel they are not singing from the same hymn sheet I am. They like to get stuck in the detail... until they can appreciate the big picture, any further usefulness to me will be limited (L).

5.6.2 The MA Exceeding Manager's Expectations

The MAs exceeded expectation in the case of impartiality, single mindedness and conservativeness.

Impartiality

Impartiality was considered relatively important by the managers questioned. Bearing this in mind, thirteen of them rated their MAs as very good or excellent with regard to displaying impartiality. They scored significantly better at impartiality than at team-skills (refer to appendix N). Many managers appreciated this level of impartiality and welcomed it as a strength:

> I find them good at pushing back on me and my directs in terms of doing the right thing and stating everything correctly (D).

> I appreciate their strong ethic and their ability to call things as they are. They see things from a black and white view, which isn't always possible or effective but it can be good from the point of view of progressing an issue (R).

Overall, those managers who favoured impartiality rated their MA very good or excellent at it. Two further managers considered impartiality quite important, though found their MA to be excessive in his display of it:

> I think they can be a little too clinical while not always trying as hard as they need to understand things (C).

> Impartiality is something I would appreciate in my accountant, to a degree, it is certainly something which I have come to expect, almost to the point where sometimes I feel that they lack human emotion. I would consider this a strong trait of theirs (E).

One manager, though rating his MA as excellent in terms of impartiality, also indicated some negative feeling with regard to this trait:

> I find them a bit too impartial. I wish they could be on my side a bit more (G)

This re-iterates some of Manager G's feelings with regard to excessive honesty. Overall, the MA appeared to be considered very precise and impartial, largely in a positive way. Manager B in particular highlighted that this was what she considered one of their key strengths to be.

As section 5.3 described, single mindedness was not a favoured skill though the MA scored significantly higher at single mindedness than at creativity (refer to appendix N). Eight of the fifteen managers who rated their MA as good or very good with regard to single mindedness favoured single mindedness as a trait in a MA and they were of the opinion that their MA displayed an appropriate amount of it. Three managers rated their MA as bad or fair, but they were satisfied with this rating as they did not value single mindedness and had no desire for the MA to become any more single minded. This left seven managers who rated their MA as either good or very good in terms of possessing singe mindedness as a skill, but considered it to be entirely negative in that they were excessively single minded in their approach. This resulted in the MA exceeding expectations on an overall basis. Conservativeness was not considered important by managers generally, though some did appreciate that air of prudence it brought to the accountant's work. Three managers rated their MA as very good in terms of conservativeness but accepted it as part of their role:

> A certain degree of conservativeness is unavoidable and I accept that (K).

> She is very conservative. She really pushed that line and she has to do that. She pushes us to justify ourselves and back up our talk. We know we don't have a business in the morning if we don't have cash and so we rely on her to be like this (O).

Two further managers also rated their MA as very good in terms of possessing conservativeness. However, in these cases, they were considered excessively conservative. They suggested that they were excessively constrained by what the figures said and lacked any creativity or business awareness in their approach.

Twelve managers rated their MA as good or very good in terms of being conservative. Again, this reflected a certain desire by these managers for their MA to display a certain amount of conservativeness:

> In terms of how they manage the finances, they're conservative. If they look at a trend from previous year and make an estimate, it will be a conservative one and than they will talk it through with the business owner to make sure they're comfortable with it. This is good. They are conservative in that way (D).

> They always err on the side of caution, which is good (G).

123

Three managers (C, H and R), rated their MA as fair in terms of conservativeness, but again, in the context of these particular managers' preferences in terms of conservativeness, this was considered perfectly acceptable. Three further managers (F, J and M) rated their MA as not at all conservative, which was in line with their preferences.

5.6.3 The MA's Weaker Skills, Attributes and Competencies

The MA scored lowest, and fell short of manager expectations, in relation to problem solving and analytical skills, team-skills, sound business understanding, interpersonal and communications skills and creativity. This is discussed in section 6.7.4. The last 4 of these SACs- team-skills, sound business understanding, interpersonal and communication skills and creativity, were perceived by the managers questioned to be significantly more important for DM than for control.

Problem Solving and Analytical Skills

Problem solving and analytical skills was the strongest of the MA's weaker SACs in that it still scored significantly higher than interpersonal and communication skills and creativity (refer to appendix N).

Several managers expressed satisfaction at with their MAs problem solving and analytical skills. Manager H was satisfied that his MA was sufficiently in tune with the business and actively solved problems on a regular basis. Manager I was confident that whenever he had a problem or an issue, there was no problem calling the accountant and he would always sit and work through it with him. Managers D and M expressed that they found their MA good in terms of problem solving and analytical skills. Both managers attached high importance to this skill but they did express that their MAs did not show a natural adeptness for it:

> They can do it, but they are not project people. When they see a blank canvas, they see a blank canvas. When I see a blank canvas, I see potential and opportunity. Now as we start to draw on the blank canvas they can fill in the gaps but if you give these guys a blank sheet in the morning, they'll still have a blank sheet by the end of the day. That's fine though. You have got to look

at how people think. Accountants have an analytical mind, that's what we value them for. That analytical mind works well for structured decisions based on financial numbers but if those numbers don't already exist, it will be very difficult for finance to get in the starting blocks and start from scratch (D).

I would say that they are good and I think they would be better but it's down to the business. It's the retail trade and the costs analysis and reporting is huge. They don't have the time to get stuck into it. (M).

Managers E and K pointed out that they were entirely happy with the MA's analytical skills but could not comment on their problem solving skills at all because they never had an experience of them problem solving. Indeed these particular managers did express a preference for strong analytical skills but they did point out that problem-solving skills were not a requisite.

Three managers rated their MA as fair at exhibiting problem solving and analytical skills.

They may have the skills. I don't know. They don't use them enough (J).

When asked at what stage the MA would become involved with a decision, Manager J explained that if, for example, a new client was coming on board, a multifunctional group would be gathered together to review it and there would be a finance representative on that group. The finance representative, however, would not attend all meetings. He explained that when they got down to the finance side of things, they would call him. He also explained that this was how the MA wanted it. He didn't want to attend the meetings unless they directly involved finance issues.

Manager N's experiences were similar:

The accountants just don't do any of this. Analytical skills yes, but problem solving no. They just aren't involved... (N).

Manager F held the strongest opinions with regard to the MA's problems solving skills, or lack thereof. He considered them only fair despite considering problem solving skills as extremely important. He questioned the accountant's inherent capacity to solve problems:

> Generally, in any company, you will find thousands of thousands of problems but when you narrow things down you will come down to four or five root causes. You address the root cause and you solve the problem. The thing is not to address the problem but to address the root cause. Accountants are very poor at that. Maybe it's because I am an engineer and I encourage engineering philosophies but accountants don't get to the base of the problem, they don't get to the root cause (F).

Team-skills

As indicated in table 4, the MA's team-skills were ranked eighth. They appeared to display comparatively stronger team-skills than they did interpersonal skills in general. However, some managers criticised their MAs for their lack of team approach. Manager G accused his MA of preferring to work alone while manager O has already highlighted that he thinks that any of his MA's weaknesses are driven by excessive busy-ness, he was of the opinion that the solution would be for her to delegate more and rely on the team more, he criticised her inability to do so.

Sound Business Understanding

Sound business understanding was rated as vitally important by almost all managers. As appendix H indicates, just eight managers rated their MA as very good in terms of possessing a sound business understanding, all of whom attributed this to strong communication channels within the organisation as well as their MAs' heavy involvement in the day-to-day business:

> I would attribute this very much to the strong communications channels here (B).

> Any project that we look at it is all about ROI so finance have to be involved right up front and we've done a very good job in doing that... they certainly provide value added because they make us think about the things we need to think about. We don't worry about obsolescence, we don't worry about scrap, we have the finance guys who come in and say we have to build a Profit and Loss, to build a Profit and Loss we have to think about this and this and this,

inevitably these issues drive decisions and drive us in different directions. That financial structure that they put around new ideas is critical (D).

It is suggested in section 6.6.1 that the MA's level of business understanding may be associated with the role played by that MA. Other managers maintained that their MA may have a strong business understanding from a financial sense in that they would know what would drive the finances, but their understanding would end there and consequently their business understanding could definitely be improved:

> I think this business understanding is good but sometimes you end up in a situation where they do get it, but their purist style comes to the fore. We can be right and lose a client or we can compromise and keep the client. They wouldn't always think beyond the figures... that kind of understanding won't come out of the figures. That comes out of contact with clients (J).

> I think they have a good understanding of the business. There is an overlay of communication in the culture of the organisation, which would help that. It's their level of engagement within the organisation that is missing. They need to be more up front, more proud of their role, eliminate the bean-counter image. I think that they make the bean-counter image a little self-fulfilling. They expect people to see them a certain way and therefore live up to it. They don't have to, they could rise above that image (M).

As appendix H indicates, five managers rated their MA as fair or bad in terms of possessing a sound business understanding:

> I sometimes feel that they are managed by spreadsheets and if the spreadsheets say we shouldn't do it, than we shouldn't do it. There is, at times, an absence of any judgement that it non-financially driven (K).

> Without accountants the financial management suffers, but in my experience the accountants have no flexibility whatsoever. They seem to think that they set up financial reports so that they can come in on budget. They don't understand that that is not the core objective. The core objective is to run a department and provide a service (L).

Manager N rated sound business understanding as fair. He did not recall having experienced it greatly. He felt that this was obvious, given a lot of their reporting demands which were unreasonable and unrealistic. Manager A maintained that a sound business understanding in his view was a key skill, and this along with communication skills was his MA's main weakness. Manager P gave conflicting results. He spoke of a very strong accountant who had a good business understanding, attributing this to her continuous eagerness to learn and involve herself in the day-to-day operations. Conversely, he had a very poor accountant who

had a very bad business understanding, who never appeared to show any initiative or willingness to get involved in anything outside of their core reporting role.

Interpersonal and Communication Skills

As summarised in table 4, communication and interpersonal skills was among the lowest scoring SACs of the MA, and it was the competency at which they earned the poorest score relative to expectation, particularly with regard to DM. Despite this poor score, communication skills were seen by many as an individual issue. Those managers rating their MA as very good in terms of interpersonal skills attributed this to having built up a good relationship with them over a period of time and generally the fact that they are particularly strong individuals in terms of communication skills. Manager O rated his MA as very good but with a short fuse, which was driven by busy-ness. Manager Q similarly rated his MA as good in terms of interpersonal skills and again, attributed any shortcomings in this regard to excessive busy-ness. Section 6.6.2 discusses how the interpersonal and communications skills of the MA directly impacts on his/her role as an information provider.

Other managers expressed either reservations or dissatisfaction with regard to their communication skills:

> You guys can be geniuses with your spreadsheets but there is not that many of you that can sit down in a meeting and share information (C).

> I think that their communications skills could be improved because while we don't meet very often, when we do the meeting aren't always the most cordial (E).

> Their interpersonal skills aren't great. They are either too quiet or very dogmatic. There isn't always a sense of lets sit and talk about this and be calm and be reasonable. I think the solution might be to involve them in decisions earlier. Often they are brought in just to justify a decision or monitor the progress once the project has been decided upon, very much after the fact (R).

Manager K was of the opinion that communication skills were very much a matter for the individual, not specific to the profession. This is discussed in greater detail in section 6.6.2.

Creativity was the competency at which the MA scored the lowest, though many managers attached little or no importance to creativity, for instance, three managers, A, B and R, rated their MAs as bad or fair in terms of creativity, however, they were satisfied with this as they did not value creativity at all.

Manager F perceived creativity to be quite important but only rated his MA as fair in relation to it. Manager H and C both rated their MA as fair also, despite considering it an important aspect of the MAs role. Manager N, again, despite rating creativity as quite important, rated his MA as fair:

> I wish they could be a little more creative, a little more idea driven. If they were, I'd use them a little more. I'd have them with me at meetings (N).

When probed as to what he thought the reasons for such poor creativity, manager N replied:

> It just wasn't in them (N).

Similarly manager L rated his MA as not at all creative:

> Problem solving and creativity would be a weakness. Some are good. Sometimes it's very much down to the individual. Generally, they are very straight jacketed (L).

Managers K, M and D rated their MA as good in terms of displaying creativity but could stand improvement:

> They're good on projects, which is good. I would like them to be a little more creative with the reporting. How can we do that more effectively (D).

> They are surprisingly good but I would like them to think beyond the spreadsheets a little more (K).

> They're good but they could be better. I'd like them to show more initiative, kick-start more idea's, find solutions (M).

The remaining managers rated their MA as good or very good in terms of creativity, in line with their expectations.

5.6.4 Summary

Above all else, the managers perceived their MAs to excel with regard to ethics and honesty, some managers pointing out that the MA's excessive honesty inhibited their pursuit of a wider role.

Technically, the managers were perceived to be highly proficient in terms of their IT skills and financial expertise, exceeding manager expectations for both control and DM. The MA scored very highly in relation to precision, though still falling marginally short of manager expectation, indicating just how important managers perceive precision to be.

Impartiality, single mindedness and conservativeness were not rated high in importance by managers. Despite achieving comparatively low scores, particularly in relation to conservativeness, the MA did exceed manager expectation in each of these traits. The qualitative results indicated that some managers valued these competencies. Some viewed their MAs capabilities in this regard as a factor inhibiting their performance and others viewed it as not affecting them at all.

The results did indicate that the MAs scored significantly lower in relation to problem solving and analytical skills, team-skills, interpersonal and communications skills and creativity, than they did in relation to ethics, honesty, IT skills, precision and financial expertise. The MAs performed below expectation in relation to all of the former, falling dramatically below expectation in relation to interpersonal and communication skills and creativity. This is discussed in section 6.7.4. On a macro level, the most significant issue arising is that, three of the SACs which the managers rated as significantly more important for DM than for control, i.e. sound business understanding, interpersonal and communication skills and creativity, were the same three SACs for which the MA achieved the poorest scores.

5.7 RESEARCH QUESTION 6

To what extent do managers perceive a conflict between the information provider's capacity to provide both control and DM information?

Managers perceptions on this issue fell into three groups of six: Firstly, Group 1's managers suggested that there was a distinct conflict which prohibited the same person from providing both types of information. This may be described as a prohibitive conflict. Secondly, Group 2's managers perceived that sufficient conflict existed which restricted their contribution of DM information. This may be described as an inhibitive conflict. These managers perceived their MA as contributing control information only, all be it to control and DM situations, but in an exclusively controlling manner. Finally, Group 3's managers embraced the MAs contribution of information to both control and DM situations. In this group the MAs not only provided DM information, but unlike those MAs in groups 1 and 2, they actively engaged in the DM process.

5.7.1 Prohibitive Conflict

Six managers (A, E, I, L, P and Q) perceived sufficient conflict to exist to prevent the MA from contributing any DM information.

Manager A was conscious of a conflict between both roles:

> They are somewhat different mindsets. It is difficult to be creative and conservative (A).

As a result, Manager A utilised his MA purely for control information, in which he valued conservativeness, consistency and accuracy. He utilised his financial controller for assistance with DM where he perceived creativity, sound business understanding and scope to be more important. Manager I echoed this sentiment:

> I think financial people running a business is a recipe for disaster because most financial guys are too cautious on spend. They don't take chances. To run a business, most MDs are marketing or operations people, they're not afraid to attack the market place. They work in a uniform way, they are very reluctant to take risks and take chances and for a business to grow you need someone who is not afraid to tackle problems, spend money and innovate and the financial guys would lack the flair to do that (I).

131

Manager L was similar in his views. The MA did not have a sufficient understanding of the business which would allow them to effectively contribute DM information. Their one remit was 'contribution of control information' and they could not overcome the limitations of this role in order to expand into anything wider. Managers P and Q reported a serious lack of involvement or influence on the part of the MA at all. This was attributed to industry sector, both were bulk pharmaceuticals organisations which is discussed in greater detail in section 6.4.1.

5.7.2 Inhibitive Conflict

A further six managers (J, K, R, F, N and M) were satisfied with the MAs ability to provide information in both cases, but they did concede that their contribution to the DM process was almost entirely controlling. Many of these managers revealed that those characteristics of information, and those SACs which the MA's demonstrated so effectively in contributing control information could not be cast aside so that the MA could contribute in a less controlling manner to the DM process. These managers were specifically asked if the SACs exhibited by their MA's as 'controllers' would stifle their involvement in DM. Typical responses were as follows:

> The initial tendency would be towards conservative ... I think the watchdog function is an integral part of it and while the purism tends to be restrictive, it goes with the territory (J).

> I think they have a certain mindset of how things should operate that is financially based and I think as a consequence they have a very black and white perspective. I don't think it's their involvement in controlling that makes them less useful in projects, but I do think that the way they think and the way they view things and the way they operate make it so that the role that they play in projects can be limited. That's not to say that they don't play a role, but they provide a service to the project in that they provide an answer that is used within the realms of the project as opposed to being a key decision maker or a key person within the project (K).

> They are involved in DM at a high level, but it is as accountants. As we all become cost conscious, their input will be required more and more, but it is as accountants, in my view (R).

132

Manager R attributed this to their training:

> I don't think accountants make good managers and that's only a perception that I have. The reason being that they are too clinical. They won't look at things from any angle other than what's the bottom $. They will not look at the people aspect. They won't look at the technical aspect. They just don't appear to be capable of it. You always revert back to your core base. My core base is technical and no matter what I work at, I think I will always use the tools and methodologies and approaches from my background in order to approach any job, and I think is entirely true with accountants also, they will always entertain the financial angle first (R).

5.7.3 No Conflict

The remaining six managers (B, C, D, G, H and O) stated that they perceived no conflict between the MA's dual involvement in information provision. Most maintained that it was essential to the effective performance of each, that they performed both. Manager D, a manager of an extremely successful, Irish subsidiary of a multinational IT company was adamant that no such conflict existed. He perceived one role as supportive of the other, not in conflict with it:

> I mean, the business makes the decisions, the business owners make the call, but finance are at that table... while they look at this stuff from a financial point of view, they understand the business, they understand where the business is coming from, they translate the number into business (D).

When asked if he was aware of any stifling effect that they may have had on the decision making process, Manager D replied:

> Usually the discussion takes place out and about anyway, finance aren't pulled into a meeting and literally told about the plan, they are as aware as anybody from preliminary discussions surrounding the issue, so there's plenty of opportunity to iron out issues and queries early on. By the time we actually sit down to review it, everybody's on the same page and all the hard discussions have happened anyway' (D).

When asked to give his perceptions of any conflict existing between the potential dual role played by the MA, Manager H replied:

> I would see this dual role as necessary but we need effective people on the team. The challenge within the team would be that everybody would be very capable of challenging robustly the way the figures are, the person won't get away with any ambiguity (H).

Manager H does not perceive a stifling effect, in fact he sees the two roles as mutually supportive:

> ... just because you are dealing with numbers your contribution should not be inhibited or restricted (H).

Manager O, a sales manager in a very successful biotechnology company at quite an early stage in their lifecycle, similarly did not perceive any conflict in the MA playing both roles:

> No, I don't see a conflict. I think they are enlightened enough to do both...they are mutually supportive roles (O).

The MA's in Group 3 appear to have crossed the line from MA to hybrid accountant, and moreover their contribution to DM appears to have progressed into that of a business partner, where the MA is not just providing information for DM, but is actively engaging in the DM process together with the DM team. These views on conflict form a major part of the manager expectation discussion in section 6.3.4.

5.7.4 Summary

The managers perceptions with regard to the specific issue of conflict fell into one of three main groups.

Group 1's managers perceived significant conflict to exist in the MAs role in control and DM. The MAs were not perceived to have the level of business understanding or creativity required to contribute to the DM process. Group 2's managers perceived less conflict than the managers in group1 but they did perceive sufficient conflict to restrict the MA's contribution of DM information. While these MAs did contribute information to the DM process, this was in a purely controlling capacity. Specifically, the SACs which caused them to excel with regard to control information, adversely affected their ability to provide DM information. They were described as 'conservative' 'cost conscious' and 'watchdogs' and it appeared that they could not take off their 'controlling hat' and put on their 'financial expert' hat. Group 3's managers perceived no conflict in their MAs role. They considered their MAs roles in control and DM to be mutually supportive. These MAs surpassed the traditional role of providing information for DM and were actively involved in the

DM process engaging with cross-functional teams as the financial expert. Managers in this group described their MAs as 'enlightened', 'supportive' and responsible for 'translating the numbers into business'.

The managers' views on conflict appear to depend a lot on the managers' own expectations of the MA which is discussed in detail in section 6.5.1.

5.8 SUMMARY AND CONCLUSIONS

Chapter 5 presented the findings of the study, analysed by research question. First, the type of information required by managers was discussed, distinguishing between their information requirements in a control context and their information requirements in a DM context. The MAs information requirements differed significantly depending on whether the information was required for control or DM. This was followed by a description of what the MA looks for in an information provider, both in a control and a DM context. Again, the MAs wanted different things from a provider of DM information than from a provider of control information. These sections begin to present a picture of what it is the managers want in their MA. Both of these sections combine some of the quantitative and qualitative results gathered during the study.

The chapter then presented an analysis of the role of the MA, from the perspective of each of the eighteen managers. These findings were purely qualitative and the general responses fell into one of two groups: those MAs who provide information for control only and those MAs who provide information for control and DM.

Sections 5.5 and 5.6 presented an account of the type of information provided by the MA and the SACs they display when providing it, both analysed in the context of the managers expectations. These sections begin to present a picture of where the MAs strengths and weaknesses lie and how this fits in with the MAs' overall role. These two sections also combine some of the quantitative and qualitative results gathered.

The final section presented the managers views in relation to the potential conflicts inherent in the MA's role as a simultaneous provider of control and DM information.

All of the quantitative results were tabulated and presented either within chapter 5 or in the appendices. All quantitative data were subjected to extensive non-parametric testing and these results are also provided either within the chapter or in the appendices.

These results begin to present a picture of the type of MAs these managers are working with. It is evident that the role of the MA is not homogenous to every organisation and these findings do suggest some factors which may influence the role played by the MA in specific circumstances. The findings also provide a much needed insight into what managers actually want and how they perceive MAs to be performing in terms of addressing their needs.

Chapter 6 goes on to discuss the key issues arising from these findings.

CHAPTER 6

Discussion of Findings

6.1 INTRODUCTION

This chapter presents a discussion and interpretation of the findings presented in chapter 5. In discussing the role of the MA as an information provider, the findings suggest the existence of several different types of MA. The first part of this discussion presents a MA classification system in which the various possible types of MA are reduced to four categories: (i) the Reporter, (ii) the Guardian, (iii) the Interpreter and (iv) the Participator. Several different factors are associated with the MAs within these specific categories. These may be organisationally specific factors, manager related factors or factors pertaining to the MAs themselves. This forms the basis of the second part of the discussion in which the MA's role as an information provider is discussed in the context of (i) the Organisation, (ii) the Manager and (iii) the MA.

Section 6.2 presents the classification system derived from the findings, which will be used to interpret the main results. Section 6.3 contextualises this classification system by reference to prior literature. Sections 6.4, 6.5 and 6.6 specifically address the individual components of the framework for analysis, i.e. the organisation, the manager and the MA. Further insights emerging from the findings which fall outside of the immediate scope of this framework are discussed in section 6.7. Section 6.8 provides a discussion and conclusion.

6.2 THE MA CLASSIFICATION SYSTEM

This classification system was derived as a result of the data analysis and interpretation techniques described in chapter 4, specifically pattern analysis and AI.

It is clear from the findings as presented in chapter 5 that different managers depict very different types of MAs. The first step in analysing these findings is to identify the different types of MAs, as perceived by the managers.

During the analysis stage of the study, clear signals indicating the MA's role, in the context of control and DM, were noted and a profile was compiled of the role of each MA as described by each manager. These profiles were reviewed for evidence of

consistencies, inconsistencies, commonalities or dissimilarities. This review led to the development of three preliminary groups of MA, (i) the Guardians, (ii) the Interpreters and (iii) the Participators. Each of the eighteen MAs was tentatively allocated to one of these three groups. The process of examining the common features of the cases within each of the three groups was then continued and repeated. These features specifically addressed the MA's provision of information to managers, i.e. the frequency with which they provided information, the methods by which they provided it, the type of information they provided, their level of inter action with managers and the extent of their involvement in the provision of information for DM as well as control.

This process of scrutiny was repeated several times in order to confirm that the cases within each group were sufficiently similar in order to be grouped together. Two deviant cases emerged. Two of the MAs originally allocated to the Guardian group, upon more detailed analysis were subsequently considered not to share sufficiently common features with the rest of the MAs within that group. This led to the development of a fourth group of MAs, the Reporters. These deviant cases are specifically discussed in sections 6.2.1.

These final classifications were scrutinised one more time to ensure that the cases were appropriately allocated to each group. The key criteria for classification were finalised and there was no evidence of any other contradictory or deviant cases. All classifications at this point were considered to be final, and so it was interpreted from the findings that each of the eighteen managers interviewed perceived their MA to fall within one of the following four groups: the Reporters, the Guardians, the Interpreters and the Participators. The breakdown of the MAs into each group is available in appendix O.

This is not a scientific framework for analysis. The lines between the four groups can at times be blurred but they do represent four distinct groups among which there are clearly discernible degrees to which it is possible to classify the managers' perceptions of the role played by the MA. The groups are mutually exclusive in that a MA cannot occupy more than one of the groups. The MAs within a given group are not homogeneous. There are some differences between MAs in the same group and

they may exhibit some of the common features to varying degrees but they will share sufficiently common features for them to be allocated to the same group. This is illustrated in figure 8 below:

Figure. 7: _Management Accounting Classification System_

Manager Perceptions of the Following;	Reporter	Guardian	Interpreter	Participator
Emphasis on routine reporting	HIGH	HIGH	MED	LOW
Interaction with managers	LOW	MED	HIGH	HIGH
Effective controlling influence	LOW	MED	HIGH	MED
Extent of contribution to DM process	LOW	LOW	HIGH	HIGH
Involvement in cross-functional teams	LOW	LOW	MED	HIGH
Emphasis on interpretation of results	LOW	MED	HIGH	HIGH
Strength of voice in the org as a whole	LOW	MED	HIGH	HIGH

The range of features listed in figure 7, E.g. Emphasis on routine reporting, interaction with managers, effective controlling influence, etc… illustrates the potential for conflict which exists for any MA engaging in both control and DM. As discussed in section 3.7.9, Granlund and Lukka (1998) recognise the expanding role of the MA as that of a consultant, an advisor, a change agent as well as a traditional scorekeeper and monitor. They indicate some key conflicts which exist for any MA attempting to carry out all of these roles. Perrow (1970), Sathe (1978), Hopper (1980) and Sathe (1982) question the MA's ability to overcome these conflicts.

6.2.1 Reporter

The first type of MA, hereafter referred to as the Reporter, reports monthly, routine, control information and does not provide any DM information. The Reporters interact very infrequently with the managers. As described in section 5.4.1, Manager A describes his MA as a 'machine which produces information' while Manager E could not recall when he had last spoken to his MA, almost all communication consists of the monthly e-mailing of routine reports. These managers appeared to be

guided more by corporate headquarters or the board of directors than by the MA, who appeared to be engaged in more group reporting:

> I certainly would not look to the MA to help me decide on a course of action. That review would take place at a much higher level (E).

The role of the Reporter shares some similarities with the Guardian and so is explained in further detail in section 6.2.2.

6.2.2 Guardian

The second type of MA, hereafter referred to as the Guardian, interacts with managers in order to provide them control information. To a greater extent than the Reporter, the Guardian monitors the organisation's performance and communicates the results to the managers as a control measure.

The Guardian group in this study consists of the MAs working with Managers I, L, P and Q. As indicated in section 5.4.1, Manager I relied on his MA for key control information but he did not utilise him/her for DM:

> They balance the books and tell us whether we're in the black or the red (I).

Manager L suggested that the MA's role did not extend beyond routine reporting of numbers and controlling of funds. Managers P and Q both maintained that their MAs did not have a very strong voice in any respect but they played little or no role in DM. Their opinions were typified by the following response:

> You have someone who traditionally tells you whether you did well or not… he doesn't impact DM in any real sense (P).

Managers in both the Reporter and Guardian groups suggested that there is an innate conflict in their MAs' roles which prevents them from providing both control and DM information (5.7.1). Like the Reporters, the Guardians do not have a strong voice in the organisation but they do represent a progression from the Reporter role, in that each of the Guardians reportedly interact with management to a much greater extent than the Reporters. At the beginning of the data interpretation stage of the study, the two MAs in the Reporter group were tentatively allocated to the Guardian group. Upon further scrutiny, it emerged that the two Reporters were not sufficiently

similar to the Guardians. The Reporters only communicated with the managers on a monthly basis and this was generally only by e-mail or perhaps by telephone. The Guardians communicate with their managers on a much more frequent basis and they interact with them in person. The Guardians may not necessarily influence their managers, but they do communicate and interact with them.

6.2.3 Interpreter

The third type of MA, hereafter referred to as the Interpreter, provides control information for both Control and DM. In this group, the MA is seen to progress further again from merely 'reporting' and 'communicating' monthly information to actively 'interpreting' information on a day-to-day basis in such a way as to engage in more effective day-to-day control than that provided by the Guardian. In this study, the MAs working with Managers F, J, K, M, N and R are classified as Interpreters.

The Interpreter recognises and embraces the challenges of providing control information in a contemporary business environment, i.e. the necessity to put financial numbers in a strategically relevant context and to relate non-financial results to organisational objectives (Burns *et al*, 1999).

> The system is so numbers oriented... the accountant's job is to make the numbers make sense (K).

Unlike the Reporter and the Guardian, the Interpreter contributes information to the DM process also:

> ... He helps me make decisions. He helps me make a call on things, by bringing that well founded, well backed up, controlling influence (N).

However, the Interpreters' input to DM is accepted to be a controlling influence:

> ... Finance are always going to bring that controlling aspect. That is the nature of them (J).

All of the managers whose MAs occupy this group consistently refer to their MA as a particularly controlling force, who has a strong voice within the organisation. Manager J describes his MA as a 'guard dog' and refers to their input as 'the controlling side of DM'. Manager K appreciates his MA's 'harsh, worst case

scenario perspective' and Manager R interacts with them in the context of cost control and cost justification. Managers M and N welcome an expansion of their MAs' role as controllers. The managers in this group suggested that a conflict exists in their MAs' role which restricts their contribution to DM to a strictly controlling influence (5.7.2).

Section 3.7.8 describes a business partner as a MA who crosses the line from merely providing information to managers to assist them in their DM, to collaboratively engaging in the DM process with managers as part of a team. The Interpreter does not occupy a business partner role. The findings indicate that they perform their control role very effectively, as indicated above, but their contribution to the DM process remains within the confines of this controlling role and so is somewhat limited as a result. They contribute the financial parameters of a decision, and little more.

6.2.4 Participator

The final MA, hereafter referred to as the Participator, extends beyond the mere provision of control and DM information. The Participator plays a more interactive role in their organisations than any of the MAs in the other categories and is generally considered to be the financial expert within the organisation who participates regularly in cross-functional teams.

> If they are going to be business partners, they have to have a business head on them, but they have to make things work in the way that they know, in the same way that I have to go and make things work by making a sale. I can't do this without resources and finance take care of this. We support each other to get the job done (O).

The Participator contributes to DM just as much as he contributes to control. Manager H, a manager in a successful, indigenous Irish drinks company described his MA's role as 'dynamic':

> They are well able to put on their controlling hat and their business partner hat. We would expect him to be able to do both or draw on other resources to support him from his team (H).

Routine information is generally extracted from the IT system or generated by more junior members of staff:

> We've done a lot of work in order to get the information we want out of SAP. The MA's job is to take this a step further and make this information mean something (H).

> I see two levels, the MA and from that level on up, they try to get very involved and try to take the time to get involved in the business, commercially, operationally etc... The lower you go down the channel, they must be so bored at having to produce that same report every Friday or every month end, they just don't seem to care (C).

Section 5.4.2 presents the views of Managers B, C, D, G, H and O in relation to their MAs' highly evolved role within the organisation. Manager B describes how the MA is involved in her projects and proposals from a very early stage. Manager C describes how his MA takes the time to get involved in the business on an operational and commercial level. Manager D differentiates his MA from MAs elsewhere by referring to his MA as a support function and not a controlling function, while Manager G refers to his MA specifically as a 'business partner'. The Participators differ from the Interpreters in that they focus comparatively less on control and more on DM. As well as this, their role in the DM process is less of a 'controller' and more of a 'financial expert'. The managers in this group perceive no conflict in their MAs' capacity to contribute to both control and DM (5.7.3).

6.3 THEORETICAL CONTEXT

In order to gain a better understanding of this MA classification system, it is useful to review it in the context of some existing frameworks in the literature as presented in chapters two and three:

6.3.1 Simon *et al's* (1954) Accounting Framework

As described above, the Reporter is engaged in a scorekeeping role (Simon *et al*, 1954). The Guardians and the Interpreters are carrying out the scorekeeping and attention directing roles though the attention directing function appears to be carried out to a far greater effect by the Interpreter than by the Guardian. The Participator is engaged in all three of Simon *et al's* (1954) functions but appears to spend comparatively less time scorekeeping and more time attention directing and problem solving.

144

6.3.2 Otley's Control Frameworks

The Guardians and the Interpreters appear quite similar. The key difference between them is that the Guardian encompasses a more traditional, 'feedback' and 'feed-forward' style control, as put forward by Otley and Berry (1980), while the Interpreter is more aware of the demands of control in a modern environment as discussed in Otley (1999). The Interpreter places more emphasis on giving managers access to meaningful and understandable control information which is more useful in a modern environment (Otley, 1999).

Section 2.3.3 describes Otley and Berry's (1980) control framework as a simple model which compares outputs, or anticipated outputs, with plans before deciding what changes must be made to inputs and processes as a result. This type of control is pursued by the Guardians, who tell the managers how their department, area or function is performing financially (6.2.2). Section 3.4 describes Otley's (1999) framework as a model which focuses on managing the organisations' pursuit of its organisational objectives as a whole. The Interpreters contribute to this type of control by engaging with managers to help explain how the organisation is performing relative to its objectives as a whole (6.2.3).

The Reporters are similar to the Guardians in terms of their resemblance to Otley and Berry's (1980) control framework, though they would not be as effective as the Guardians. The Participators may be classified with the Interpreters as their contribution to control is consistent with Otley's (1999) framework, though their contribution to control is not quite as significant as the Interpreters.

6.3.3 Simons' (1995) Control Framework

As described in section 2.3.4, Simons (1995) developed a control framework containing the four fundamental elements necessary to engage in effective control without sacrificing flexibility, innovation and creativity. The four categories of MA described in the classification system above display a varying mix of these elements of control.

Diagnostic control systems allow managers to track the progress of individuals, departments or units by measuring their performance against pre-defined targets. This is consistent with the Reporter, who provides routine, financial information but does not interact with managers in any meaningful way.

Boundary systems involve setting limits and rules which employees are discouraged from exceeding or breaking. The Guardian, as well as engaging in diagnostic control, also engages in boundary control in that they interact with managers and inform them when they are performing below target.

Belief Systems encourage employees to work in the same strategic direction as the rest of the company. The Interpreters embrace this belief system more than the Reporter and the Guardian. The Interpreter embraces the challenge of controlling in a contemporary business environment and carries this out by being aware of where the organisation is moving strategically. According to Simons (1995), belief systems work hand-in-hand with boundary systems and this fits in with the description of the Interpreter as a 'guard-dog' (J) who 'brings a controlling influence' (N) and 'makes the numbers make sense' (K).

The Participator functions within a more enabling type of control framework, more consistent with both belief systems and interactive control systems presented in Simons' (1995) levers of control. Interactive control systems are formal systems designed to share constantly emerging information. This lever of control is implemented through frequent face-to-face meetings and discussions and debate about underling plans and assumptions. This is consistent with the 'supportive' (D), 'business-partner' (D, G, H, O) described in section 6.2.4.

6.3.4 The MA's Evolving Role

Section 3.7 describes results from field research conducted in recent years into the MA's evolving role. Most of this research concluded that the focus of management accounting information is moving away from number-crunching and record-keeping to one of strategic context and commercial awareness. This reflects the tendency for the MA to furnish 'softer' accounting information, as opposed to 'hard' numbers.

Siegel and Kulesza's (1994) practice analysis revealed that analytical and problem solving skills together with interpersonal skills were among the most important traits of the MA. Siegel and Sorensen's (1999) follow-up practice analysis revealed descriptions of collaborative business partners engaging in less transactional work and more decision-support. Much of this literature described the present day MA as a hybrid accountant. The role played by the Participator, as perceived by the managers, is closest of the four categories to that of the hybrid accountant as presented in the literature (Burns *et al*, 1999; Burns and Yazdifar, 2001). The hybrid accountant is the name given to accountants who encapsulate the dual role of controller and business partner (3.7.7). The business partner is described in the literature as an accountant who has expanded his/her role from contributor of information to the DM process, to a collaborative member of the DM team (3.7.8). Of the six managers whose MAs were categorised as Participators, four volunteered the term 'business partner' in describing the role of their MA. None of the managers whose MAs occupied the other groups used such terminology. These managers viewed a 'business partner' as someone who was by their side on a DM team, from the early stages of the DM process.

6.4 ORGANISATION

The literature asserts that the effectiveness of a MAS may vary from company to company, depending on the circumstances of that particular company. This reflects a contingent approach to management accounting which suggests that:

> the particular features of an appropriate accounting system depends on the specific circumstances in which an organisation finds itself (Otley, 1980, pp85).

Technological development (Piper, 1978; Daft and Macintosh, 1978), strategy (Langfield-Smith, 1997), competitive pressures (Khandwalla, 1972), organisational structure (Hopwood, 1972) and other situationally specific factors (Dermer, 1977) have all been described in the literature as key issues affecting the design and operation of MAS. The interpretation of the findings from this study apply these principles of contingency theory to the role of the MA as opposed to just the operation of the MAS.

147

Industry, level of competition, financial security and group structure have all been identified in this study as potential key contingent variables influencing the role played by the MA. It appears that these variables often affect the manager's point of focus, which in turn affects what exactly they want from their MA. Many of these findings are confirming issues discussed in chapter 3 where contingency theory was introduced in the context of the effects of uncertainty and change on the role of the MA (3.6). This concept has also appeared in recent literature. Pierce and O'Dea (1998) reported evidence of organisations tailoring their MAS to suit the particular circumstances of the company, namely, size and ownership.

6.4.1 Industry

The findings provide evidence that the particular industry in which the organisation operates is associated with the role of the MA.

In the Guardian group, the MA reported and provided some control information and had little or no involvement in the provision of DM information. Two of these companies are bulk pharmaceuticals companies, which have already been shown to be companies which are not excessively concerned with cost control and are driven by technology and market more then cost and margin, (refer to the perceptions of Managers P and Q, described at section 5.4.1). The type of influence typically brought to bear on a situation by the MA was not appreciated in these types of organisation:

> I'm sure some plants are crawling over their paperwork, in other sectors where they are pumping out machines and costs are hugely critical. I don't really care. My budgets are flexible enough so I don't consider my reports all that much (Q).

This is consistent with Piper (1978) and Daft and Macintosh (1978), who cited technological development as a key contingent variable determining the nature of a company's MAS.

A local government manager within this group, (refer to Manager L at section 5.4.1) asserted that his MA simply did not hold a sufficient understanding of the complexities of the specific industry to play anything other than a passing role in

control and contributed very little to DM. The nature of the industry was such that the MA was detached from it on a day-to-day basis and never gained a sufficient understanding to be perceived as useful. This supports the findings of Dermer (1977) who reported that the design of control systems is 'situationally specific'. In this case, 'Industry' can be identified as a 'situationally specific' factor.

In contrast, the Interpreters and Participators (5.4.2) operate in more 'finance friendly' industries, such as computer components manufacture, secondary bio-medical pharmaceuticals and consumer retail. These are more business oriented industries, operating within a supply chain which is more familiar to the MA and which are subject to competitive and financial pressures which are easier for the MA to understand. MAs focus on issues such as financial performance, market share, costs and budgets. Regardless of the type of MA it is, and no matter how advanced his methodologies and approaches might be, it is a given that these are the areas upon which he/she is likely to focus (Nixon and Innes, 1998). The organisations in the Interpreter and Participator groups are in industries where these are the likely areas of focus for the managers also. The MA is perceived to be more useful in such organisations, and therefore appears to play a more useful role:

> We have a team of 4 or 5 finance people and they manage everything. They do physical inventory checks, to projects, to day-to-day P and L management, to finance packs. I mean they do everything and that's the way I like it, (D).

In addition, industry type may be associated with the control culture of the company. These bulk pharmaceuticals companies and the civil service department appear to operate within traditional control systems focusing on feed-back and feed-forward mechanisms (Otley and Berry, 1980), diagnostic control systems and boundary systems (Simons, 1995), while the mass manufacturing organisations appear to embrace a more modern interpretation of control, consistent with Otley (1999) and Simons' (1995) belief and interactive levers of control.

While the findings would suggest that industry type is an important factor in determining the role of the MA, this is over-ridden in some cases, however. Managers A and E are both in the Reporter group. Manager A is from a telecommunications manufacturing company, while Manager E is in an electronics consumer products manufacturing company, both of which are industries in which

one would expect the MA to have a strong voice such as that of an Interpreter or a Participator as described above. In these particular instances, the group structure (6.4.4) is determining the MA's role to a greater effect than the industry.

6.4.2 Level of Competition

The results indicate that the level of competition to which the company is exposed influences the role played by the MA, as well as the power and influence which the MA is perceived to possess.

Of the six companies in the Interpreter group, two have just been subject to takeovers (Companies N and J), which have moved the organisations into a more vulnerable position. Two are Irish subsidiaries of US multinational computer component manufacturers (Companies K and R). Both organisations are facing increasing pressure from group competitors. The remaining two companies are in the retail consumer products industry (Companies M and F), and in recent years have entered a more competitive phase in their industry. In all six cases, increased competitiveness is leading to growing cost control pressures which is altering the importance of the MAS within these organisations. All six of the managers associated with this group confirmed that the MA's profile within the company had increased as the competitive pressures increased (5.4.2):

> In any operation where there is a low cost operation outside of Ireland doing exactly what you're doing, margin has become a big issue over the past couple of years and this is where cost control has become a big issue and Finance are listened to more. There's a greater instance of decisions being made which are outside of your control, which are more financially based (K).

This suggests that growing competitive pressures may be associated with greater reliance on Simons' (1995) belief systems of control. Everybody within the organisation has a common goal of maximising competitiveness through cost containment and the MA is relied upon to support this.

In contrast, the organisations falling within the Guardian group are not subject to the same competitive pressures, and consequently their MA did not enjoy such a high profile. For instance, according to Managers P and Q, the bulk pharmaceuticals

industry is so regulated and patented that there are significant barriers to entry. The competitive pressures in this industry revolve around product innovation and technology, neither of which, according to these managers, were areas in which the MA excelled. Similarly, according to Manager L, the county council department is subject only to internal financial pressures, as opposed to external competitive pressures, and the Guardian was not perceived by management to have a sufficient business understanding to contribute anything significant to that process, which limited his/her role. This is consistent with Khandwalla (1972), who reported that the level of competition facing an organisation determines the impact of accounting controls in that organisation.

6.4.3 Financial Security

The findings indicate a correlation between the relative financial security of the organisation and the positioning of the MA in one of the four groups. The findings suggest that the more financially secure an organisation is, the greater the likelihood that the MA will play a more involved role in the organisation. This re-enforces some of the points presented at 6.4.1 above in relation to the impact of 'industry' on the role of the MA.

The Participators in this study operate within financially buoyant companies. These includes companies in the biomedical pharmaceuticals sector (B, C, G and O), mature companies in the computer software industry (D) and a company with a worldwide, leading, consumer brand whose managers are committed to retaining this brand at its peak commercial position (H) (5.4.2). While cost control and profit margins are important, these companies are sufficiently profitable and cash rich that cost control is secondary to product development, market share and customer satisfaction. One such manager described his company as 'rich, fat and happy' (G) and other managers in the Participator group stated that their companies are not subject to as stringent financial control as they have experienced in other companies (B, D):

> We are at an investment aggressive stage of our lifecycle. The purse strings might be tighter elsewhere and they might be watching the company as if it might fold if something went wrong, whereas that's not going to happen here. That has to help the finance guy's involvement (G).

151

Citing similar findings in the literature, Otley (1978) reported that managers in 'tough environments' used their information in different ways compared to managers in 'liberal environments' and Langfield Smith (1997) maintained that cost control is more important in firms following a defender type strategy compared with firms following a prospector type strategy. Defenders were concerned with efficiency and tight cost control while prospectors were more results orientated. This is consistent with the organisations in the Participator group. Cost control was not quite so aggressive, the financial emphasis being placed more on market share and bottom line profitability.

The findings indicate that the financial security of the organisation may be associated with greater use of Simons' (1995) interactive control systems. The organisations in the Participator group achieved their objectives through cross functional team-work and interactive meetings, in which the MA was expected to participate (5.4.2). Generally, managers in these companies perceive their MAs to be actively involved members of the organisation, contributing to both control and DM in a constructive and useful way.

6.4.4 Group Structure

The findings provide evidence of an association between the extent of local control in the organisation and the role played by the MA.

Reporters are perceived by managers to 'report' structured control information only, while contributing little to the DM process. Both of the organisations within this group (A and E) are subsidiaries of foreign owned multinationals, the managers of which admit to having little DM autonomy locally (5.4.1). The Reporters are perceived by managers to devote all of their time to meeting corporate reporting requirements. The findings suggest that the presence of a powerful 'parent company' placing heavy reporting demands on its subsidiaries consumes most of the MA's time, leaving little time for more 'value added' involvement. This corporate control influence also has repercussions on the relationship between the manager and the

MA, which in itself, contributes to this limited role played by the MA. The Manager/MA relationship is discussed in detail at section 6.5.3.

In contrast, the organisations in the Interpreter and Participator groups introduced at section 5.4.2 were described by their managers as largely autonomous in their own right, being either Irish-owned and operated organisations, or Irish subsidiaries of foreign multinationals with much more distributed control. Control in these organisations was imposed at a more localised level and major decisions were often taken locally. This meant that information prepared by the MA was used locally and was therefore prepared and distributed in a more involved and interactive manner. This has also changed the dynamic of the relationship between the manager and the MA as will be discussed at section 6.5.3 and 6.6.3. This is consistent with Horngren (1972), Hopwood (1972) and Otley (1978), who asserted that organisational structure had an important effect on how a management accounting system functioned.

This would suggest that a strong influence from a corporate head office may be associated with diagnostic control systems (Simons, 1995) which encompass the traditional feed-back and feed-forward control mechanisms described by Otley and Berry (1980). The findings indicate that increased local autonomy within the organisation seems to push the MAs towards Simons' (1995) belief and interactive control systems.

6.4.5 Section Summary

The findings provide evidence that various organisational factors influence the role played by the MA as perceived by managers. Specifically, the industry in which the organisation operates contributes to the MA's level of understanding of the business, which contributes to the nature of the MA's involvement in information provision (6.4.1). The level of competition faced by the organisation affects the managers' point of focus, which also affects the MA's role (6.4.2). The financial security of the organisation influences the nature of the MA's role as one of control and stewardship or one of service provision and support (6.4.3). The group structure often determines the key tasks required of the MA as well as the relationship between the MA and the manager (6.4.4). Many of these factors are referred to in section 3.6 and figure 5 as

recognised contingent variables affecting the design of MAS. These factors also influence managerial focus which is examined in section 6.5.2. In addition, these findings suggest that these organisational factors may also be associated with the control culture of the organisation (6.4.1-6.4.4).

The implications of these particular findings are discussed in the conclusions section of the study in section 7.3.1 and 7.3.2.

6.5 MANAGER

The majority of the textbook definitions of management accounting contain the word 'manager'. At its most basic, management accounting is about satisfying the needs of managers:

> Management accounting involves purposely channelling relevant and timely information to managers (Belkaoui, 1980, pp.7).

> Management accounting acts as a support tool for management (Arnold and Turley, 1996, pp.9).

The findings suggest that the managers' particular circumstances and outlook, as well as the dynamic between the manager and their MA, will affect the way in which the MA carries out his/her role. In this study, manager expectation, manager focus, the manager/MA relationship, the extent of the managers' independence from the MA, and possible manager territorialism have all been identified as key factors pertaining to the manager which may influence the role of the MA.

6.5.1 Manager Expectations

It is possible that the manager's own expectations influence their perceptions of the role of the MA, i.e. the role played by the MA may be affected by what the manager sees their role as being. The evidence suggests that many managers still value the traditional, financially orientated MA (5.2.2, 5.3.3 and 5.6.2). There was an overall lack of enthusiasm for a new style MA which did appear stronger in certain groups. For instance, managers perceived the Reporter to be a 'machine-like entity' (A), which merely generated financial reports. They did not envisage their role expanding outside of the core financial remit. Similarly, managers maintained that the

154

Guardians did not play any role outside of their core financial reporting role, and even this was limited in its scope. The managers in both of these groups did not recognise the 'hybrid accountant' and 'business partner' described in the literature (Burns *et al*, 1999; Burns and Yazdifar, 2001) but more importantly, they did not appear to have any expectation in this regard, (5.4.1, 5.7.1 and 5.7.2). In this way, the managers own expectations appear to be influencing the MA's role (7.3.1).

These particular findings to some extent contradict the 1994 and 1999 Practice Analyses carried out in the US by Siegel and Kulesza and Siegel and Sorensen respectively. These studies predicted the dawn of the MA as the collaborative business partner who was a cross between a financial advisor and a business analyst. Other findings were more consistent with the Practice Analysis studies. The Interpreters and more particularly the Participators bear a closer resemblance to the new type of hybrid MA described in the literature (5.4.2 and 5.7.3). For instance, one manager in the Participator group described his MA as a 'support function, not a controlling function' (D). Another actually referred to his MA as a 'business partner' (G). These managers expected their MA to provide something more then the core financial data. There are several possible reasons for this, some of which have been identified at the organisation discussion at 6.4. This type of MA is more consistent with the Practice Analysis results described above and most closely resembles the hybrid accountant described in the literature (7.3.4).

The managers' expectations in terms of the SACs of their MAs differ also. For instance, the qualitative results at 5.3.3 suggest that managers in the Interpreter group expressed a strong preference for impartiality, citing it as a key aspect of their role, while managers in the Participator group preferred the MA to be less impartial and more of a team player. This represents a fundamental difference in what managers expect from their MA. In the first instance, managers want a MA who holds the reins and provides a controlling influence, in the second they want a team player offering financial expertise but with a shared objective with management. Bougen (1994), Jackson (1956) and Yamey (1982) described the MA as 'precise', 'doggedly honest' and 'boring'. Bougen even maintained that this reputation benefited the MA. Some of the managers interviewed in this study, largely those in the Guardian and Interpreter groups, share Bougen's opinion in that they appreciated characteristics

such as precision, impartiality and conservativeness. Managers in the Participator group, however, have more in common with Friedman and Lyne (1997) who maintained that the bean-counter image created the impression of someone who cannot relate to the business, lacks initiative and creativity and encourages sub optimal decisions. These findings suggest that not al managers actually want a hybrid accountant. Some managers are quite satisfied with the MA retaining the traditional MA role (7.3.3).

In many of the cases, the line between these two alternatives is blurred. Often, the manager appears to want the best of both worlds. For instance, managers value honesty in their MA, but some resent excessive honesty (5.3.1 and 5.6.1). Similarly, Managers D and O, whose MAs occupy the Participator group, see their MA as a business partner who does not stifle creativity or inhibit progress (5.7.3), yet they value conservativeness in their MA as a balance against less conservative managers (5.3.4). Manager B, who sees no role for the bean-counting MA, still does not attach any importance to creativity in her MA (5.3.2). Manager M expresses that he would like his MA to retain his traditional role, but to 'do it better, add more value, with better communication, and initiating change' (5.4.2). In some cases like this, the managers' overall expectations of the MA's role, and their specific expectations of the MA's SACs are somewhat contradictory. Even those managers who expect their MA to play this more progressive, involved role, as typified in the Participator group and to some extent in the Interpreter group, often want them to retain a lot of their traditional characteristics and attributes. Regardless of the overall role of the MA, the managers generally expressed an appreciation for the traits of the traditional MA such as impartiality, honesty and conservativeness (7.3.3).

This review of managers expectations re-introduces the conflict issue described in the literature (3.7.9). Sathe (1982) asked if a single MA could play the role of organisational policeman while still being an active participant in the DM process. Granlund and Lukka (1998) posed similar questions, concluding that it was virtually impossible for one person to carry out both roles at the same time. When specifically questioned about this issue of potential conflict, managers working with Reporters and Guardians agreed with Sathe and Granlund and Lukka, that both roles could not be carried out by the same person (5.7.1). The managers in the Interpreter group

agreed to a certain extent (5.7.2), while the managers in the Participator group appeared to disagree entirely with Sathe and Granlund and Lukka, maintaining that both roles could quite easily be carried out by the same person (5.7.3). It is important to note that despite the managers in the Participator group maintaining that no conflict exists between the two roles, both roles do exist and the MAs in this group are still relied upon for their contribution to control. This view is typified below:

> Somebody has to do it, somebody has to tell you, give you the data on the finances of what you can and can't do. If you decide to go ahead with something and you don't make it, you can't not look at the fact that you didn't make it and what it cost you. You have to do that and the MA is the guy equipped to help you do that (G).

The way the Participators carry out the control elements of their role, the attitude of their managers and the attitude of the Participators themselves may differ from the Reporters, Guardians and Interpreters. However, the Participators contribution to control is still an important element of their role but the distinguishing feature of this group, is that control is carried out in conjunction with a largely independent decision support role. In other words, the Participator's involvement in control, does not compromise his/her contribution to the DM process.

The managers own expectations may influence the extent to which a conflict is perceived to exist in the MA's role as a simultaneous provider of both control and DM information. The Reporters and Guardians perceive significant conflict and so do not encourage any greater input from them to the DM process, while the Interpreters and the Participators perceive less conflict and appear to support the MA's increased involvement in DM (7.3.6).

6.5.2 Managerial Focus

Providing a link between the discussion on manager expectation, at 6.5.1 above, and the overall organisational discussion at 6.4, is the common denominator of managerial focus. At section 6.4, various organisational factors were suggested which may affect the manager's point of focus and may in turn affect the role played by the MA. Mia and Chenhall (1994) suggested that managers require information targeted at their specific elements of the operating situation and that managers

perceptions of the usefulness of information is affected by context. This assertion is supported by the current findings. Managers of organisations in more complex industries such as the bulk pharmaceuticals companies in the Guardian group are more interested in scientific and technological advancement, so naturally this is where their managerial focus will lie. As a result, pharmaceutical company managers P and Q do not find the information provided by the MA to be particularly useful (5.5.2). This is consistent with Chenhall and Morris (1986), who asserted that the rate of technological change of an unpredictable nature make routinised, financial data of a deterministic nature less useful. Conversely, managers of organisations facing strong competitive pressures such as those in the Interpreter group are interested in costs, yields and margins. Consequently, this is where these organisations' managerial focus will lie and since production of this type of information is the more natural domain of the MA (Nixon and Innes, 1998), he/she enjoys a significantly higher profile in these organisations (7.3.1). This managerial focus appears to be determined to a large extent by many of the organisational factors already examined and consequently is discussed in greater detail in section 6.4. These findings do suggest that managerial focus will influence the role played by the MA.

The MAs in the Participator group (6.2.4) appear to play a wider, more involved role, displaying more creativity and providing a broader scope of information in a more active and involved way. Five out of these six managers were non-production managers (i.e. two sales managers, a supply chain manager, a distribution manager and a logistics manager). These types of managers (e.g. sales managers, distribution managers, etc.) are exposed to greater levels of uncertainty, which affects their managerial focus, and so drives them to expect something more from their MA (Mia and Chenhall, 1994). In the Interpreter group (6.2.3), where the MA provided more structured, financial, routine information, only two out of six managers were non-production managers, (i.e. a sales manager and a general Managing Director). One of the two managers in the Reporter (6.2.1) group and three of the four managers in the Interpreter group were also production managers, and all expressed little or no interest in broad scoped information or a broader oriented MA. Mia and Chenhall (1994) suggest that the use of management accounting information differs depending on the managers' functional orientation. Generally, it is accepted that a broader based MAS is appreciated more by those managers susceptible to greater amounts of

uncertainty (Mia and Chenhall, 1994). The literature suggests that sales managers are exposed to greater uncertainty than production managers whose remit is more scheduled and routinised (Chenhall and Morris, 1986). Broad scoped information is associated with enhanced performance for marketing activities, but not so much for production (Mia and Chenhall, 1994) and generally, sales managers are less satisfied with traditional MAs then production managers (Pierce and O'Dea, 2003). Functional differentiation was not a specific focus of this study. The numbers of managers from specific functions were too small to facilitate meaningful comparisons but the findings did provide support for existing literature in this regard (Chenhall and Morris, 1986, Mia and Chenhall, 1994, Pierce and O'Dea, 2003). This is presented as an opportunity for future research in section 7.6.

6.5.3 Manager/MA Relationship

Following on from suggestions by Chenhall (2003) that future contingency-based research should focus on the affects of interactions between groups and individuals on the role of the MA, these findings suggest that the relationship between the MA and the manager is associated with the role played by the MA.

For instance, in the Reporter group, both managers admitted to having little or no direct contact with the MA. Reports were distributed via e-mail and manager queries, which were rarely raised with the MA themselves, would be dealt with by telephone:

> I might see the MA in the car-park in the evening, that is on the rare occasion where he goes home on time (E).

In contrast, the managers and the MAs in the Participator group met on a daily basis, both formally and informally, and in some cases, even socialised together at company events:

> When I come in every morning, the MA is the first person I speak with (C).

> The last time I spoke to my MA was last night when I played football with him (D).

Granlund and Lukka (1998) describe one type of MA who brings a financial perspective to DM and exists in an advisory and support capacity. This MA appeals to line staff and operations management. Alternatively, Granlund and Lukka describe

another type who monitors financial progress, oversees performance and exists in a centralised governance capacity. This MA appeals to senior and corporate management. The evidence from this study confirms Granlund and Lukka's findings, in that the MAs playing this support role (the Participators) are those MAs who have a comparatively closer relationship with the manager, whereas the MAs playing a more governance-orientated role (the Guardians) have less involvement with the manager and appears to be affiliated more with corporate management (7.3.1).

A closer, interactive relationship between the manager and the MA may be associated with a more modern view of control within the organisation. The modern view of control portrayed in Otley (1999) is that control is a collaborative, supportive function encouraging belief systems and interactive control systems (Simons, 1995), not an imposing, monitoring force as presented in Otley and Berry (1980), focusing on boundary systems, organisational brakes and diagnostic control systems (Simons, 1995). A more interactive relationship between the manager and the MA fits in with the collaborative, supportive view of control and this approach appears to be fostered by the organisations in the Interpreter and Participator groups (7.3.2).

The group structure in which the organisation operates, appears to have a significant impact on the relationship between the manager and the MA (6.4.4). Those organisations in the Reporter group have already been described as subsidiaries of foreign owned multinationals, with little local DM autonomy, who are answerable to their parent companies. In such companies, there is a sense that power and control is exerted from the corporate parent. As scorekeeper, the MA is perceived to be affiliated more with the corporate head office and therefore has little or no relationship with the manager. This 'diagnostic' style control, (Simons, 1995) exerted by the MA in conjunction with the corporate head office tends to alienate the MA to an almost 'enemy' type position.

6.5.4 Manager Independence from MA

The findings indicate that some managers are acquiring their data from alternative sources and ultimately preparing their own management accounting information. These managers are preparing KPIs and engaging in variance analysis and yield

analysis, all independently of the MA (5.4.1). In these particular cases, where managers are engaging in more management accounting activities themselves, the MA is not necessarily cultivating a new role as business partner. This is in contrast with the literature which suggests that where managers begin engaging in management accounting activities themselves, the MA will re-position themselves into more of a business partner role. For instance, Burns and Yazdifar (2001) predicted that the future would bring about a reduction in the number of MAs, with more managers carrying out management accounting activities, while the remaining MAs would be busy becoming supportive IT experts and business analysts. Pierce and O'Dea (2003) maintained that in order to survive, the MA must cultivate a business partner role and in doing so, must let go of their traditional power base and accept the decentralising of accounting information. In this study, managers in the Reporter and Guardian groups are preparing some management accounting information themselves (5.4.1). In these instances, inadequate information provided by the MA is driving the manager to prepare their own. This is consistent with Pierce and O'Dea (2003), who reported increasing incidences of managers preparing their own information in order to compensate for the deficiencies in the information provided by the MA. In contrast, managers in the Interpreter and Participator groups, where the MA has cultivated a more involved role, still rely exclusively on the MA for their management accounting information and prepare no such information themselves (5.4.2). Timeliness is identified in the findings as a factor. In the Reporter and Guardian groups, it is suggested by some managers that the MA is busy with corporate reporting and does not have the time to meet the needs of managers (7.3.1).

The findings suggest that the level of manager independence from the MA may be associated with the relationship between the manager and the MA. Those managers admitting to having little or no relationship with the MA (i.e. the Reporters and the Guardians) are those who prepare a lot of their management accounting information independently of the MA. Those who admit to having quite a close working relationship with the MA (i.e. the Interpreters and the Participators) are those who either rely exclusively on the MA for their information or those who perform additional management accounting work in conjunction with the MA. Those managers who had a close relationship with their MAs found them more

161

approachable, more receptive to their needs and they therefore grew to rely on them more:

> The MA is there to support me whenever I need him (G).

> I wouldn't view the MA as being the most approachable member of the organisation (P).

The findings suggest that the more independent the manager is from the MA, the more traditional the control approach is. In this study, the managers in the Reporter and the Guardian groups perceive themselves to be very independent of the MA, yet they operate within quite traditional feedback and feed forward style control mechanisms based on diagnostic and boundary controls. The Interpreters and Participators operate within a modern control system, but appear to be comparatively more reliant on their MA. This contradicts a lot of the control literature, which suggests that a modern control approach encourages employee empowerment and distributed control (Otley, 1994). This may be due to the level of complexity in the control system, for example, the diagnostic and boundary control systems executed by the Reporters and the Guardians involve monitoring and scorekeeping only. When the managers in these groups want anything more, they have to prepare it themselves and in this way are independent from the MA. In the Interpreter and the Participator groups, the monitoring and scorekeeping elements of control are executed by the IT system or more junior members of staff. The next stage of control, i.e. interpretation of results, explanation of objectives and support of control decisions, encapsulates the belief and interactive control systems executed by the Interpreters and the Participators, and in this way their manager is more dependent on them (7.3.2).

6.5.5 Manager Territorialism

While the literature has been critical of the MA for failure to re-position themselves into a more involved, hybrid role, these findings suggest that the managers themselves significantly influence the MA's role.

The more involved role played by the MAs in the Interpreter and Participator groups is perceived to be assisted by the managers' own efforts in supporting this:

> I would attribute this [sound business understanding] to the strong communications channels here (B).

> I think they have a good understanding of the business. There is an overlay of communications in the culture of the organisation, which would help that (M).

> If these guys don't understand what's going on, really that's my fault (D).

These managers are actively directing the MA into a more involved role, while managers in the Reporter and Guardian groups appear to be doing far less to change the MA's role or increase his/her profile. The managers in the Interpreter and Participator groups welcome the MA's increased involvement in projects and DM but they do recognise certain limitations to their role:

> I am ultimately accountable so the final decisions rest with me (D).

> Their business partner role will always be limited because they wouldn't be accountable (G).

> I just want the information presented to me so that I can work with it, I certainly don't see the MA solving my problems (B).

However, the managers in these groups do not appear in any way threatened by the MA's expanding role. They welcome it and through there own actions appear to support it. The managers in the Reporter and Guardian groups, however, view their MA as a policing function and not a support function and so appear threatened by them as opposed to being interested in expanding their role (7.3.1).

Specifically in relation to control, the managers in the Reporter and Guardian groups, operating within traditional diagnostic and boundary control systems, appear to be more threatened by their MA than those managers in the other groups. The belief and interactive control systems appear to require much more interaction and information sharing between the manager and the MA. The managers in the Reporter and Guardian groups do not appear to engage in this level of interaction (7.3.2).

Sathe (1982) discussed 'strong controllers', referring to strong MAs, who achieved an effective balance between independence and involvement so the MA could effectively contribute to control and DM. Pierce and O'Dea (2003) discussed 'strong managers' who combined a detailed knowledge of their information requirements

with an assertive, or even aggressive style of management in order to ensure that their needs were met. They knew what they wanted and they communicated this effectively and took measures to ensure that the MAs provided it. In contrast, they described 'weak managers', who tolerated information deficiencies, attributing these to their own lack of accounting knowledge or inflexibility, or alternatively to a lack of business understanding on the part of the MA. The managers in the Reporter and Guardian groups could be perceived as 'weak' because of their failure to communicate their requirements properly, their failure to help to generate their MA's business understanding and their failure to actively communicate their dissatisfaction with the MA's present role. The managers in the Interpreter and Participator groups could be perceived as strong because they took steps to ensure that the MA was a useful contributor.

This issue was not specifically addressed in this study. A thorough analysis of this would have required a detailed review of each MA, together with each manager and this was beyond the scope of the study. The importance of the strength or weakness of the manager in relation to the role of the MA is highlighted in section 7.6 as an area with strong potential for future research.

6.5.6 Section Summary

Chenhall (2003) suggested that future contingency-based research into the role of the MA should focus on more contemporary factors, drawing from the fields of psychology and sociology (3.6). This section highlighted some manager related factors which may be associated with the role played by the MA. Firstly, the findings suggest that the managers' own expectations may influence the MA's role (6.5.1) as does the managers particular point of focus (6.5.2). Thirdly, the effect of the relationship between the manager and the MA is examined in section 6.5.3 while the impact of the extent of manager independence from the MA is discussed in section 6.5.4. It was found that managers in the Reporter and Guardian groups prepared a significant amount of their own information, in contrast with managers in the Interpreter and Participator groups who relied exclusively on their MA. Finally, the findings suggest that some managers feel territorial about their own role and they allow this to influence the role played by the MA. Some of the managers in the

Reporter and Guardian groups appeared to feel threatened by the MA, either from a control point of view or from a job ownership perspective. As a result, these managers made little effort themselves to advance the position of the MAs, in contrast with the managers in the Interpreter and Participator groups who sought to advance the profile of their MA as much as possible (6.5.5). The implications of these findings are discussed in the conclusions section in 7.3.1 which discusses heterogeneous MA roles, and in 7.3.2 which discusses the organisations control culture.

The findings in relation to manager expectations suggest other implications for the role of the MA. They provide a deeper insight into the notion of the hybrid accountant as presented in the literature by identifying what type of MA in the findings most closely resemble the hybrid accountant (7.3.4). They suggest that not all of the managers actually want a hybrid accountant, and even those that do still value many of the elements of the traditional MA. The implications of these findings are discussed in detail in the conclusions section of the study dealing with the expectations of managers in section 7.3.3. The discussion on manager expectation (6.5.1) also suggests that the managers expectations may be influencing the extent to which conflicts is perceived to exist in the MA's role as a simultaneous provider of both control and DM information. The implications of these findings are discussed in the conclusions section of the study dealing with conflict in 7.3.6.

6.6 MANAGEMENT ACCOUNTANT

Having discussed the role of the MA as an information provider in the context of the organisation and the manager, it is now necessary to address the final component of the framework, that of MAs themselves. The findings in chapter 5 presented a picture of the MA across several organisations. Section 6.6 discusses how the perceived strengths and weaknesses of the MAs presented in this picture influence perceptions of the role of the MA as an information provider. Specifically, their level of business understanding, their interpersonal and communication skills and their attitude in general are discussed.

6.6.1 Sound Business Understanding

There was complete consensus among all managers regarding the importance of a sound business understanding, all agreeing that it was critical to the MA's ability to become more involved in the DM process and to carrying out a more involved role generally (section 5.3.2). The qualitative results suggest that the managers interviewed are generally disappointed by the level of business understanding displayed by their MAs:

> I sometimes feel they are managed by spreadsheets (K).

> Their purist style comes to the fore (J).

The findings specifically suggest that those MAs playing a more involved, collaborative role in information provision such as the Participators and the Interpreters possess a stronger business understanding than the Reporters and the Guardians. As detailed in section 5.6.3 and appendix H, only eight managers rated their MAs as 'very good' in terms of possessing a sound business understanding. Included in this eight, were all six Participators and two Interpreters. Three other managers in the Interpreter group rated their MA as 'good. In contrast, the managers in the Reporter and Guardian groups perceived their MAs' business understanding to be inadequate.

> I find the MA lacks the business understanding and the commercial awareness which is necessary to contribute anything more than the basic information (A).

This is consistent with the literature which asserts that a broad-based business understanding is the key to a more involved, rounded MA, (Siegel and Kulesza, 1994; Siegel and Sorensen, 1999; Burns *et al*, 1999; Burns and Yazdifar, 2001).

Given that the Participators and the Interpreters operate within more progressive control systems, these findings suggest that a modern approach to control (Otley, 1999) is more likely to be executed in an organisation where the MA has a strong understanding of the business. The literature suggests that this modern interpretation of control demands that the MA shows the ability to contextualise financial results within strategically expressed organisational objectives (Burns *et al*, 1999) while

showing an indebt understanding of the organisations business processes (Burns and Yazdifar, 2001). These findings are consistent with this literature.

6.6.2 Communication and Interpersonal Skills

Managers were generally disappointed with the MAs' interpersonal and communication skills (5.6.3). Overall, this was perceived to be one of the MA's biggest weaknesses. However, the findings suggest that the Participators possess better communication skills than those in the other three groups, particularly the Reporters:

> I have found over the years that people like yourself tend to be rather isolated from the rest of the organisation... I feel that they are not very tolerant of those who might not understand the numbers straight away (E).

> They have to have the communications skills necessary to sit in a room and contribute, otherwise they wouldn't be there (D).

This is consistent with the literature described in section 3.8, which suggested that communication skills are a key trait in a more involved MA.

In addition to the communication skills of the individual MA, the culture of communication within the organisation appeared to have a significant impact on the MA's role. All of the managers in the Participator group highlighted the strong communication channels within the organisation as being a key contributory factor to the MA's increased contribution to DM. Strong communication channels were also reported in the Interpreter group. This facilitated strong MA/manager relations, as discussed in 5.6.3 above, all of which gave the MA a better understanding of the business and an improved appreciation of the needs of managers. Dickson and Powers (1979) found that where information preparers identify strongly with users' requirements, they are likely to have similar perceptions as to the effectiveness of an information system.

These findings suggest that a modern style of control may be associated with a culture of interaction and open communications. An organisational culture of openness and communications provides the foundation for Simons' (1995) belief systems and particularly his interactive control systems.

6.6.3 MA's Attitude

The MA's attitude to their own role may influence how they perform that role, and how useful they are to management in the performance of that role. However, this attitude may in itself be influenced by several different factors.

For instance, one manager, in the Reporter group, indicated that his organisation has little local DM autonomy and is answerable to their corporate parent. He criticised his MA for spending too much of his time meeting reporting requirements. He admitted to having little or no working relationship with this MA and scored his MA very poorly on his communication skills:

> While we don't meet very often, when we do, the meetings aren't always the most cordial (E).

In this case, the MA appeared to have quite a dogmatic and controlling attitude to his role, which appeared to contribute to his limited role in the organisation. This attitude appeared to be as a result of several organisation and managerial specific factors as discussed at section 6.4 and section 6.5.

Conversely, a manager in the Participator group admitted that their company was largely financially buoyant. She had an extremely close working relationship with her MA, indicating that he had a strong business understanding, which she attributed to the strong communication channels within the organisation.

She confirmed that her MA would never be dogmatically controlling in his attitude:

> If you can justify your reason for spending, it's not a problem… it's understood that markets can't be built without money and it's all discussed well in advance during budgeting and forecasting… everything here is open and communicated well in advance (B).

The MA's attitude appears to influence the role played by that MA (7.3.1). This attitude in turn, appears to be influenced by many of the issues discussed throughout chapter 6, such as group structure, the relationship between the manager and the MA and manager territorialism.

A detailed examination of the impact of MA attitude was not possible without also interviewing MAs. An expansion of the study to incorporate the views of MAs is suggested in section 7.6 as a potential area for future research.

6.6.4 Section Summary

The findings suggest that the role of the MA as an information provider is influenced by the MA's level of business understanding (6.6.1), the MA's interpersonal and communication skills (6.6.2) and the MA's general attitude (6.6.3). The implications of these findings on the role of the MA and on the control culture of the organisation are discussed in the conclusions section in 7.3.1 and 7.3.2 respectively.

6.7 FURTHER INSIGHTS

The framework of analysis referred to in chapter 6 has been used to organise the managers' perceptions of the role of the MA in terms of providing control and DM information. Outside of this framework, the research provided some further important insights into potential obstacles which the MA must overcome in developing a hybrid accountant role.

6.7.1 Managers' Conflicting Requirements

Managers value the various characteristics of information (5.2.2) as well as the various SACs of the information provider (5.3.2) differently, depending on whether the information is required for control or DM.

Accuracy and consistency were the dominant characteristics favoured for control information, while timeliness and scope were considered more important for DM information. Timeliness and scope have been identified in the literature as two characteristics favoured in DM information. Chenhall and Morris (1986) pointed out that DM requires rapid turnaround of information because of its unsystematic and unpredictable nature. Similarly, breadth of scope has been identified as having particular significance in assisting managerial DM (Gordon and Narayanan, 1984; Mia and Chenhall, 1994; Mendoza and Bescos, 2001). For DM purposes, it was

suggested by some managers that accuracy could be traded for increased timeliness. This was consistent with Pierce and O'Dea (2003) who also reported concern among managers with the MAs delayed distribution of information because of their pursuit of excessive accuracy.

Sound business understanding, interpersonal and communication skills, team-skills and creativity were considered significantly more important for DM than for control. Much of the literature states that business understanding, communications and team-skills were critical to the MA's success as a useful contributor to DM (Brignall *et al*, 1999; Siegel and Sorensen, 1999; Pierce and O'Dea, 2003).

There was a strong consensus among all the managers as to the importance of a sound business understanding and there was little or no distinction among the 4 groups as to its importance:

> Put it quite simply, we're running a business, that's what it's about. If they don't understand it, they will contribute nothing (F).

Sound business understanding is frequently cited as a key trait required in the contemporary MA (Brignall et al, 1999; Burns *et al*, 1999; Siegel and Sorensen, 1999; Pierce and O'Dea, 2003). There was also strong consensus among many of the managers as to the further increased importance of a strong business understanding in any MA involved with DM. Scapens *et al* (1996) suggest MAs need a sound commercial understanding and without it, risk having any potential business partner role hijacked.

6.7.2 Management Accountants' Perceived Strengths

Overall, the MA scored higher in relation to those characteristics which were perceived to be more important for control, namely, accuracy and consistency (5.5.1). Managers were generally of the opinion that MAs were more comfortable providing control information. Most managers highlighted accuracy as a particular strength of the MA. This is consistent with Pierce and O'Dea (2003) who reported that MAs were perceived to be excessively concerned with accuracy.

The MA's performance fell short of manager expectation in relation to those SACs considered more important for DM: problem solving and analytical skills, team-skills, sound business understanding and communication and interpersonal skills (5.6.3). These findings are consistent with the literature. Clarke, Hill and Stevens (1996) suggested that MAs in Ireland focus more on bookkeeping than on innovation and decision-support. Mendoza and Bescos (2001) suggested that the MA's move to the business partner role was not straightforward due to their education, training and their overall development. The findings are also consistent with conflict literature which suggests that the MA may struggle to perform the 'business partner' role due to the conflicting attributes required in such a diverse role (Perrow, 1970; Sathe, 1978; Hopper, 1980; Sathe, 1982).

6.7.3 Managers are Preserving the Traditional Management Accountant

Bougen (1994) claimed that the single-minded, impartial, precise image of the traditional MA had worked in his favour by inspiring confidence and building his reputation. Friedman and Lyne (1997) and Brignall *et al* (1999) disagree, maintaining that the bean-counter image of the MA must be dispelled. As described in section 5.3.3, many of the managers interviewed in this study concurred with Bougen (1994):

> These numbers drive important decisions (K). [Impartiality]

> We all have different roles to play here. Sales people are mad cap and optimistic. You need someone to balance that and I believe that finance play a strong role in this regard (O). [Conservativeness]

The findings in relation to managers' preferences for scope are quite revealing in this regard (5.2.2). Scope is perceived to be more important for DM information than for control information but a surprising amount of managers were clear that the financial information was their first priority and as long as they had that anything additional was a bonus.

> Whatever falls under the financial scope is what I'm interested in (B).

> I don't see the value of forecasts. I care about what is happening in the present, not the future. I want information about what is happening now and I want it quickly. That's my concern (Q).

The findings in relation to scope were not significantly different across the four groups. Managers in the Participator group often considered scope just as unimportant as managers in the Reporter group. This is in contrast with the literature in this area, which suggests that managers are particularly eager to receive broad scoped information (Chenhall and Morris, 1986; Mia and Chenhall, 1994; Mendoza and Bescos, 2001; Pierce and O'Dea, 2003).

Some of the managers did express an interest in scope but they expected this from the financial controller, or perhaps a different department, and not from the MA (5.2.3). This is consistent with the literature. These managers have given up expecting to receive this information from the MA and are sourcing it elsewhere. Pierce and O'Dea (2003) suggested that if MAs did not provide broad scope data, managers would source it themselves.

6.7.4 Overall Poor Performance of the Management Accountant

A recurring feature of the findings as presented in chapter 5 is the dissatisfaction of managers generally with the performance of their MAs. This is particularly the case with regard to their contribution to DM.

The information provided by the MA is seen to be lacking in flexibility and adaptability and excessively narrow in scope (5.5.2). The qualitative findings indicate a large expectations gap between the MA and the manager with regard to relevance of information:

> They don't understand a lot of the time what we are using the information for and they would never ask if it was relevant (P).

The managers' perceptions of the MAs' performance varies depending on the many factors discussed throughout sections 6.4, 6.5 and 6.6. However, regardless of these factors, there was an overall sense of dissatisfaction with the MA's performance on these specific issues. These findings are consistent with the literature. Pierce and O'Dea (2003) identified a user-preparer expectation gap and Bruns and McKinnon (1993) described the information produced by the MA as lacking a link between its function and objective.

The MA also scored poorly in relation to some of the SACs, particularly those considered significantly more important for DM. Generally, their level of business understanding was perceived to be poor, and interpersonal and communication skills were perceived to be a distinct weakness:

> I don't know if it goes back to a lack of training of the softer skills in college but finance people just don't seem to want to get involved in things (C).

Brignall *et al* (1999) expressed concern as to the MA's lack of understanding of the business drivers and processes, suggesting that this would limit their role in the organisation. Empirical literature to date has reported managers strong preference for interpersonal and communications skills (Siegel and Kulesza, 1994; Burns *et al*, 1999), though few studies were conducted as to the MA's performance in this regard. The evidence here suggests that interpersonal and communication skills are among the MA's biggest weaknesses.

6.7.5 Management Accountants are too Busy

Any weaknesses in the timeliness of the MAs' information was attributed to how busy they were, due largely to the pressures of corporate reporting requirements. Timeliness was identified by many of the managers as a key obstacle in their carving out of a new role:

> The management report could hit my desk 2 weeks after month end and really that's not providing me with any value at all. I need information much more quickly (Q).

This is consistent with the literature, much of which reports that managers are frustrated by the apparent lag between activity and reporting of the activity. Meaningful information is that which is actionable and for information to be actionable it must be timely (Bruns and McKinnon, 1993; Mendoza and Bescos, 2001; Pierce and O'Dea, 2003).

Moreover, if timeliness is not addressed, there is little doubt that the managers will turn elsewhere to get their information:

> I need my pricing models yesterday and this is the issue which causes most friction. I appreciate the pressure she's under and eventually I will need to get more and more involved with this myself in terms of battling the issue. To be useful to me on pricing on contracts, she has got to be there all the time and while she's excellent on the day-to-day stuff, she just isn't there on pricing and this is a huge disappointment (O).

The findings suggest that the absence of timely information is driving some managers to source their own information (section 5.5.1). This is consistent with prior empirical findings (Bruns and McKinnon, 1993; Mendoza and Bescos, 2001; Pierce and O'Dea, 2003).

6.7.6 Management Accountants are too Honest

All managers perceived honesty to be an important attribute of their MA (5.3.1) and all managers perceived their MAs to be very honest (5.6.1). The managers' responses on honesty, however, were sometimes inconsistent with their quantitative responses. As indicated in section 5.3.1, Manager N valued 'practical honesty' and wanted his MA to be honest while also using 'some cop on'. In section 5.6.1 some managers criticised the MA's excessive honesty. Manager K maintained that their levels of honesty counteracted their creativity and Manager O considered them to lack 'savyness' in terms of displaying excessive honesty. Similar opinions were reported in relation to impartiality. Largely, the managers appreciated impartiality in their MA, and impartiality was a surprisingly popular trait for many managers, but some managers did express that they would like their MA to be less honest and impartial and more of a 'team-player' (5.6.2). This revisits the blurred line between the MA as a controller and the MA as a business partner as discussed in the context of manager expectations in section 6.5.1. Managers appear to want the best of both worlds. From one perspective, they value the MA for their honesty and impartiality, some managers citing it as a key advantage over alternative information providers. From another, they criticise the MA for being too honest and not appreciating the manager's specific agenda (5.6.1). This is an illustration of the potential conflict between the MA as a simultaneous controller and business partner (Sathe, 1982; Granlund and Lukka, 1998).

174

6.7.7 Management Accountants are not stakeholders in Decision-Making

Despite the evolved, supportive, collaborative roles played by the Interpreters and to a greater extent the Participators, some of their managers still perceive limitations to their potential role for the simple reason that ultimately they are not stakeholders in the organisation's decisions. Manager D praises his MA for his supportive, and not excessively controlling influence, and always insisted that he was involved in decisions from the outset, yet he was clear on the fact that the MA did not own any of the business processes and ultimately was not accountable. Manager G refers to his MA on a daily basis as a 'business partner' but he accepts that his MA will not feel the sense of ownership over a decision because he will not get the same grief if things go wrong. Manager M, again, maintains that the MA is not accountable for the decision and so cannot be perceived to be an equal member of the DM team, though he believes that this is an advantage in that they have no agenda and can play a more impartial role (5.4.2). These are the perceptions of the managers working with the most evolved MA's in the study, those who most closely resemble the 'hybrid accountant' and 'business partner' discussed in the literature (6.3.3 and 6.3.4). This suggests that the MA's lack of accountability will always limit their position in the cross functional DM team.

6.7.8 Section Summary

Many of the key discussion points arising from this study relates to the various organisation, managerial and MA specific factors which are associated with the role of the MA as an information provider. Some additional findings emerged from the study which fell outside the scope of the analytical framework, and these were discussed in this section. Generally, the managers had conflicting requirements in terms of their information and their information providers depending on whether they were seeking out control information or DM information (6.7.1). The implications of this particular finding is discussed in the context of managers expectations in section 7.3.3. A variety of findings were presented which represent potential obstacles in the MAs pursuit of a hybrid accountant role. The MAs were perceived to be stronger at providing control information and most managers concurred that the MAs were more

175

comfortable within the control arena (6.7.2). Managers were generally disappointed with their MAs on an overall level, but particularly in relation to those characteristics and SACs perceived more important for DM (6.7.4). MAs were perceived to be too busy (6.7.5) and too honest (6.7.6) and finally MAs were not perceived to be true stakeholders in the business (6.7.7). The implications of these findings for the MA's role are discussed in section 7.3.5.

6.8 SUMMARY AND CONCLUSIONS

Chapter 6 presented an analysis of the findings which were described in chapter 5. The development of a suitable framework of analysis was necessary through which the findings could be interpreted and analysed. The first part of the framework of analysis is a MA classification system which sets out four alternative types of MA- the Reporter, the Guardian, the Interpreter and the Participator. The second part of the framework sets out the three separate components which influence the MA's role- the organisation, the manager and the MAs themselves. The organisational factors were presented in section 6.4, addressing the industry, level of competition, financial security and group structure. The managerial factors were examined at section 6.5, examining manager expectation, managerial focus, the relationship between the manager and the MA, manager independence from the MA and possible manager territorialism. The MAs themselves were discussed in section 6.6, addressing their level of business understanding, their interpersonal and communication skills and their attitude generally. Section 6.7 presented some deeper insights emerging from the findings which fell outside of the scope of the framework but which were just as critical to the study.

This chapter highlights the diversity of MA roles in existence and discusses a variety of factors which may influence these roles. This contingency-based review responds to suggestions by Chenhall (2003) that future contingency-based research should focus on how relationships and interactions between groups and/or individuals are impacting MA roles. This chapter also discusses how these variables may be associated with the control culture of the organisation. This provides a deeper understanding of the control frameworks presented in chapters 2 and 3. The interpretation of the findings included in this chapter also provides a much deeper

insight into the concept of the hybrid accountant, both from the perspective of the manager's expectations, and the MA's capacity to meet those expectations.

Chapter 7 now goes on to present a summary of the research, followed by the conclusions from the findings together with the strengths and limitations of the study, the contributions of the study to the literature, and suggestions for future research.

CHAPTER 7

Summary and Conclusions

7.1 INTRODUCTION

This study examined managers' perceptions of the role of the MA in providing information for control and DM, as well as the factors influencing this role. The study was prompted by assertions in the literature that MAs did not appreciate the complexities inherent in contributing to control and DM in a contemporary business environment (Bruns and McKinnon, 1993; Friedman and Lyne, 1997; Mendoz and Bescos, 2001; Pierce and O'Dea, 2003). The study also responded to suggestions in the literature of the emergence of a hybrid MA who engages effectively in both control and DM, combining the role of financial monitoring and stewardship with that of a financially astute business partner. The overall objective of the research was set out in section 4.2.1, followed by the specific research questions which may be summarised as follows:

1. What characteristics of information do managers perceive to be important for control and DM?
2. What SACs do managers perceive to be important in providers of control and DM information?
3. To what extent is the MA providing information for control and/or DM?
4. How effective is the MA perceived to be at providing useful information?
5. To what extent does the MA display the SACs associated with providers of useful information?
6. To what extent do managers perceive a conflict to exist in the MA's capacity to provide both control and DM information?

In addressing these research questions, chapter 2 discussed the role of the MA as traditionally presented in the well established management accounting literature, the majority of which is largely theoretical in nature. Chapter 3 examined the role of the MA as reported in the contemporary empirical literature. The research objective was presented in chapter 4 together with the detailed research questions designed to achieve this objective. Chapter 4 also described the research approach and the data collection and analysis techniques. Data were collected by means of eighteen semi-structured interviews with managers. Using a triangulation approach, both quantitative and qualitative data were gathered. The quantitative data were analysed using Microsoft Excel Analyse-It software, while the qualitative data were analysed manually using coding (Patton, 2001), pattern analysis (Miles and Huberman, 1994)

and analytical induction techniques (Bryman, 1985; Silverman, 2001; Punch, 2005). The results of the interviews, both quantitative and qualitative, analysed by research question were presented in chapter 5. Chapter 6 discussed and interpreted the findings in the context of a framework developed from the literature.

In this chapter, the research undertaken together with the key findings from that research, are summarised in section 7.2. The conclusions of the research are set out in section 7.3, while section 7.4 outlines the strengths and limitations of the study. Section 7.5 describes the contribution to the literature, while suggestions for future research are presented in section 7.6. Section 7.7 concludes the chapter.

7.2 SUMMARY OF THE RESEARCH

The study was framed in several different streams of literature. Firstly, the key control frameworks presented in the literature, which represent a progression of thought with regard to control, were discussed in chapters 2 and 3. Secondly, the key DM frameworks presented in the literature were discussed in chapters 2 and 3. Finally, throughout this study, numerous references were made to literature surrounding the changing role of the MA and the factors driving these changes. The research objective and research questions emerging from this review were presented in section 4.2. The rationale behind the type of data collected to address each of the research questions was described in section 4.3.3. This section will present a summary of the main findings, analysed by research question.

7.2.1 Research Question 1

In chapter 2 the role of information was reviewed and a comprehensive list was derived from the literature of the characteristics most frequently referred to by managers when discussing their information requirements (section 2.6). This literature has not focused on the extent to which these characteristics may be considered as important for control as for DM and vice versa (section 2.6.1). This research question addresses this gap.

The managers valued relevance and reliability above all else, in both control and DM information (section 5.2.1). Timeliness and scope were considered significantly more important for DM, while accuracy and consistency were favoured more for control. While the quantitative results revealed that scope was considered significantly more important in DM information, the qualitative results suggested that the managers had few expectations of their MA in terms of the scope of their information. The findings suggest that MAs were relied upon primarily for their financial input and managers often sourced the broader scoped information elsewhere (section 5.2.2).

The findings relating to relevance and reliability were consistent with the literature. Relevance has long been discussed in the management accounting literature in the context of the user-preparer expectation gap (Pierce and O'Dea, 2003) and reliability is a characteristic strongly associated with the accounting profession (Yamey, 1982; Bougen, 1994). The findings in relation to timeliness also concurred with the literature. Timeliness has traditionally been considered extremely important in the literature, particularly in situations where a rapid response is required, e.g. a DM or project situation (Bruns and McKinnon, 1993). In this study, accuracy was considered important, but more important again for control purposes. Some of the managers agreed that they would trade accuracy for increased timeliness in a DM scenario. This is consistent with Van der Veeken and Wouters (2002) and Pierce and O'Dea (2003). It was predicted in the literature that broad scoped information would become a key deliverable for the contemporary MA (Chenhall and Morris, 1986; Mia and Chenhall, 1994). These findings did not support this prediction in that breadth of scope was not revealed as a very important characteristic in management accounting information.

7.2.2 Research Question 2

Chapter 3 discussed the changes occurring in the business environment in the past two decades (section 3.2), as well as the effect these changes have had on the role of the MA (section 3.3 -3.5), concluding with a review of the empirical research into the MA's contemporary role (section 3.7). From this literature, a comprehensive list was derived of the key SACs which have been associated with the MA. Again, the study

examined the extent to which these SACs may be considered as important for control as they are for DM, or vice versa.

The managers valued ethics above all else in providers of control and DM information. Honesty was also considered very or extremely important by almost all of the managers (section 5.3.1). Sound business understanding, communication and interpersonal skills, team-skills and creativity were considered significantly more important in providers of DM information than in providers of control information. In a DM scenario, some managers rated a sound business understanding as being even more important than honesty (section 5.3.2). The qualitative results revealed that the managers appreciated impartiality in their MA. Half of the managers interviewed perceived impartiality to be very or extremely important. The qualitative results also revealed that problem solving and analytical skills were considered important by some managers, and not favoured by others, though all concurred that problem solving would be more important in a DM scenario (section 5.3.3). Single-mindedness and conservativeness were perceived to be of low importance.

The findings in relation to ethics were consistent with contemporary research in which ethics have become vitally important in all organisational employees, particularly those within the finance department (May, 1999). The literature suggested that sound business understanding, communication, interpersonal and team skills were among the most important traits required of the modern MA (Siegel and Kulesza, 1994; Siegel and Sorensen, 1999; Burns et al, 1999; Burns and Yazdifar, 2001). These findings suggested that managers value these traits more in providers of DM information, suggesting that an increased involvement in DM may be reflective of a more modern and expanded MA role. Most of the managers, while agreeing that increased creativity was important in a DM context, were tentative in these views due to apprehension at the concept of a 'creative accountant'. This is consistent with similarly tentative views on creativity in the literature (Siegel and Sorensen, 1999). The literature suggested that accountants have traditionally been referred to as 'bean-counters' who are doggedly precise and honest (Jackson, 1956; Yamey, 1982; Bougen, 1994; Friedman and Lyne, 1997). Bougen (1994) maintained that this stereotype has benefited the accountant, while Friedman and Lyne (1997) suggested the contrary. The findings of this study suggested that the managers still value many

182

of the traits associated with the more traditional MA, i.e. impartiality, precision and honesty.

7.2.3 Research Question 3

Chapter 2 described how the traditional MA role may be separated into distinct roles. One role envisages the MA as a key component of the organisation's 'planning and control' system. The other envisages the MA as facilitating and supporting managerial DM (section 2.2.4). RQ3 ascertained the extent to which this is true for the contemporary MA.

This research question asked respondents to describe the role played by their MA in the provision of information for planning and control, and although the responses varied significantly from manager to manager, they could be divided into two broad groups; (1) the MA provides information for control only, and; (2) the MA provides information for control and DM. In the first group, the MAs varied from periodically reporting routine information on performance and efficiencies to regularly engaging with managers to provide more frequent control information (section 5.4.1). The MAs in the second group varied from those who contribute information to the DM process, but do so strictly within the confines of a controlling role, to those who actively participate in both the control and DM function, bringing different approaches to each function (section 5.4.2).

The literature to date has presented a multitude of different management accounting roles, ranging from the traditional, scorekeeping MA (2.2.4) to the modern hybrid MA who ostensibly juggles the conflicting demands of being an effective controller as well as a financially astute business partner (3.7.7). These findings present MAs from either end of this spectrum.

7.2.4 Research Question 4

To date, manager surveys have focused on managers' perceptions of the importance of particular information characteristics or the MA's performance in relation to particular information characteristics (Chenhall and Morris, 1986; Bruns and McKinnon, 1993; Mendoza and Bescos, 2001; Van der Veeken and Wouters, 2002). This study did both by ascertaining how well MAs are perceived to perform relative to expectation in terms of providing useful information.

Overall, the managers questioned were dissatisfied with the information produced by their MA. The MAs' scores fell short of expectation in almost all cases (section 5.5). The quantitative results revealed that the MA was perceived to be stronger at producing accurate, consistent, reliable and timely information. However, the qualitative results suggest that the managers were less satisfied with the MA's timeliness than the quantitative results would suggest (section 5.5.1). The MA performed particularly poorly in relation to relevance, flexibility and adaptability and scope (section 5.5.2).

These findings were consistent with the literature, which suggested that MA's particular abilities lay in producing accurate, reliable and consistent information (Yamey, 1982; Bougen, 1994) which often lacked relevance (Bruns and McKinnon, 1993) and was narrow in scope (Mia and Chenhall, 1994).

7.2.5 Research Question 5

Again, empirical studies to date researching the MA's role have focused on the importance of particular SACs in the MA, or the extent to which MAs exhibit particular SACs (Siegel and Kulesza, 1994; Siegel and Sorensen, 1999; Burns *et al*, 1999; Burns and Yazdifar, 2001). Few studies have attempted both. This study addresses this gap. Having examined the importance of certain SACs in RQ2, RQ5 examines the extent to which MAs exhibit these SACs relative to the managers' expectations. This will provide further insights into the reasons for the MA's level of involvement in control and DM as ascertained at RQ3. In addition, many empirical studies of the MA's role to date have focused on anticipating future changes and

developments in the MAs' SACs. This research question focuses on managers' actual experiences in comparison with the predictions made in prior studies.

The results indicated that the MAs scored significantly lower in relation to problem solving and analytical skills, team-skills, interpersonal and communications skills and creativity than they did in relation to ethics, honesty, IT skills, precision and financial expertise (section 5.6). They exceeded the managers' expectations in relation to impartiality, single mindedness and conservativeness. The qualitative results in relation to these particular findings were conflicting. Some managers valued these particular competencies, while others identified them as factors inhibiting the MA's performance of a more involved role (section 5.6.2). The qualitative results revealed similar conflicts in relation to honesty. Some managers appreciated the MA's inherently honest approach, while others felt that their excessive honesty was detrimental to their proposed 'business partner' role (section 5.6.1).

The SACs at which the MAs scored the lowest, were among those SACs perceived to be significantly more important in providers of DM information, namely, sound business understanding, interpersonal and communications skills and creativity (section 5.6.3).

The contemporary empirical literature was very clear about the type of attributes expected of the modern MA. A strong business understanding, analytical skills and softer skills such as communications and team-skills were considered to be paramount in a modern MA (Siegel and Sorensen, 1999, Burns *et al*, 1999; Burns and Yazdifar, 2001). Overall, the MAs reviewed in this study scored particularly poorly in relation to these particular SACs.

7.2.6 Research Question 6

The MA's role as a simultaneous 'controller' and 'supporter' is inherently conflicting (Perrow, 1970; Sathe, 1978; Hopper, 1980). These conflicts increase as the MA's role develops into that of a 'hybrid accountant' role. This new role incorporates new dimensions such as consultant, advisor and change agent, alongside the traditional

elements of the MA's role such as monitoring and stewardship (Granlund and Lukka, 1998). The literature questions whether or not the same person can occupy both roles (section 3.7.9). This conflict issue has not been pursued at length in the contemporary literature, particularly from the managers' perspective. In response, RQ6 investigates managers' perceptions of the conflicts in the MA's capacity to contribute adequately to both control and DM.

The managers' responses to this question fell into three main groups: (1) sufficient conflict exists to prevent the MA from providing both control and DM information, (2) sufficient conflict exists to restrict the MA's contribution of DM information, and (3) no conflict exists and the MA may freely provide both control and DM information. Group 1's MAs were considered to lack the creativity and business understanding required to contribute to DM. Group 2's MAs were described as 'conservative' and 'cost conscious' and it was suggested that they could not take off their 'controlling hat' in order to put on their 'financial expert hat'. MAs in group 3 were described as 'enlightened', 'supportive' and perfectly capable of exercising financial control, while also engaging with cross functional DM teams as the financial expert. The MAs described in Groups 1 and 2 were consistent with those described in the traditional conflict literature (Perrow, 1970; Sathe, 1978; Hopper, 1980, Sathe, 1982, Granlund and Lukka, 1998) while the MAs described in Group 3 appeared to be doing a better job at overcoming the conflicts inherent in their role.

7.3 CONCLUSIONS OF THE RESEARCH

This study set out to examine managers' perceptions of the role of the MA in the provision of information for control and DM as well as the factors influencing this role. The findings highlight the diversity of management accounting roles in different organisations and provide a deeper understanding of the complexities influencing the role of the MA, identifying various factors which may be associated with that role (7.3.1). They identify several factors which may be associated with the control culture of an organisation (7.3.2). They provide insights into the expectations of managers with regard to their MA's role (7.3.3). In addition they facilitate the development of a deeper insight into the concept of the hybrid accountant as presented in the literature (7.3.4). They also identify some factors which may be

186

associated with the MA's lack of progression into this contemporary hybrid role (7.3.5). Finally, the study identifies some factors which may be associated with the levels of conflicts which managers perceive to exist in the MA's role as a provider of both control and DM information (7.3.6).

7.3.1 Heterogeneous Management Accountant Roles

These findings suggest that there is a great diversity of MA roles in existence. The MAs in this study are reduced to four categories: the Reporters, the Guardians, the Interpreters and the Participators. These categories are not scientifically developed and the lines between them are blurred but they do represent four distinct groups into which the MAs studied may be classified (6.2). These roles may be influenced by a wide range of factors: The findings identified how organisational factors such as industry (6.4.1), level of competition (6.4.2), financial security (6.4.3) and group structure (6.4.4) were key forces influencing the role of the MA. The findings also identify some sociologically derived factors which may be associated with the role played by the MA within the organisation. The managers' own expectations were found to be associated with the MAs' role (6.5.1). The findings suggest that managerial focus, often influenced by the organisational factors outlined in section 6.4, were also strongly associated with the MA's role, as was the relationship between the manager and the MA (6.5.3) and the extent to which the manager felt independent from the MA (6.5.4). Those managers who shared a close, interactive relationship with their MA, appeared to be more dependant on them for their informational needs and therefore welcomed the MA's increased involvement in the organisation. Those managers who did not share a close, interactive relationship with their MA sourced a lot of their information themselves, were less dependent on them, and so did little to improve their MA's profile within the organisation (6.5.4). These managers appeared to view their MA as a threat and were more territorial about their own position. Managers who did share a close relationship with the MA appeared to view their MA as a supportive service and they considered it their responsibility to assist the MA to enhance the quality of the service (6.5.5). In addition, these findings suggest that the MA's level of business understanding (6.6.1) and the extent of their interpersonal and communication skills (6.6.2) will influence their role. The diversity of MA roles evident from the findings suggest that no single 'management

accountant' definition may be applied uniformly to all MAs. The implications of this conclusion for the management accounting contingency literature is discussed in section 7.5.3.

7.3.2 The Organisation's Control Culture

The findings suggest that specific circumstances may be associated with the style of control executed in an organisation. Industry (6.4.1), competitive pressures (6.4.2), increased financial security (6.4.3) and group structure (6.4.4) may be associated with the type of control executed in an organisation, whether it's the traditional feed-back style of control modelled by Otley and Berry (1980) or the modern, progressive style of control modelled by Otley (1999). The findings also suggest that sociological factors such as the relationship between the manager and the MA (6.5.3), the extent to which the manager is independent from the MA (6.5.4) and the level of territorialism displayed by the manager (6.5.5) will also impact on the control culture of the organisation. Finally, the findings suggest that the MAs' own business understanding (6.6.1) and their interpersonal and communications skills (6.6.2) will influence the style of control used in the organisation. This conclusion is discussed in greater detail in section 7.5.1 in the context of the study's contribution to the control literature.

7.3.3 The Expectations of Managers

Control and DM

The managers interviewed appeared to want different things from their MA at different times. They favoured accuracy, consistency, precision and impartiality in contributors to control, and they valued timeliness and scope, communication skills and creativity significantly more in contributors to DM (6.7.1). Given that twelve of the eighteen managers indicated that their MA contributes to both control and DM, this suggests that MAs are expected to approach these different aspects of their job in different ways.

Key financial input a priority

It has been suggested in the literature that traditional MAs, characterised by precision, impartiality and conservativeness are no longer required, and if MAs do not demonstrate more creativity and commercial awareness then they will eventually become extinct (Friedman and Lyne,1997; Brignall *et al*, 1999). Consequently, much of the contemporary literature has developed the notion of the hybrid accountant who is a business partner as well as a controller (Burns et al, 1999; Burns and Yazdifar, 2001). This has created the impression in the literature that the long-standing, traditional aspects of the MAs role are somehow redundant and unwanted. These findings do not support this literature. The MAs in this study were appreciated for their factual, impartial and trustworthy input. Even those managers who described their MAs as having a very broad and multi-functional role appreciated them primarily for their key historical, financial input (section 6.5.1 and 6.7.3). This suggests that the traditional style MA is not redundant and still exists today, but in some organisations this traditional role is carried out alongside a wider and more involved role.

Not all managers want a hybrid accountant

Some of the managers interviewed were looking for a great deal more than the historical, financial input. Other managers sought nothing more. The findings clearly indicated that not all managers interviewed wanted a hybrid accountant (6.5.1). Referring to figure 8 in section 6.2, the Interpreters place a higher emphasis on routine reporting, have a controlling influence and have little involvement on cross functional teams. The Interpreter does not resemble the hybrid accountant as presented in the literature (3.7.7) and may be more closely associated with the traditional MA (2.2.4). However, the managers in the Interpreter group appeared to be quite satisfied with the Interpreters role. The traditional style MA, with a good understanding of the manager's needs, is presented in these findings as a satisfactory alternative to the hybrid accountant. The managers in the Interpreter group, for various reasons outlined throughout this study, demand more extensive reporting and require the MA to engage predominantly in control. The Interpreters' increased

involvement in projects and cross-functional teams would compromise their ability to satisfy these core needs of the manager.

Section 7.5.2 describes how these conclusions contribute to the MA role literature.

7.3.4 A Deeper Insight into the Hybrid Accountant

Many of the studies referring to the 'hybrid accountant' or the 'business partner' have centred on predicting the future role of the MA as a hybrid accountant (Burns *et al*, 1999; Burns and Yazdifar, 2001). These studies have not gathered evidence as to the managers' actual experiences of these roles. Nor have they sought to establish a true understanding of the term hybrid accountant beyond the generic descriptions presented in the literature of a simultaneous controller and business partner. These findings have addressed both of these gaps in the literature.

In setting out to examine the MA's involvement in the provision of information for control and DM, the findings of this study revealed that the 'hybrid accountant' did exist in some of the organisations reviewed. Just six of the eighteen managers interviewed described their MAs in terms resembling the hybrid accountant as presented in the literature (3.7.7). These particular MAs are described in this study as Participators. Figure 8 describes the distinguishing characteristics of the four different MA groups (6.2). Having ascertained that the Participator most closely resembles the hybrid accountant as presented in the literature (6.2.4), it is possible to define the hybrid accountant in terms of these characteristics. The findings suggest that the hybrid accountant places a low emphasis on routine reporting, contributes significantly to the DM process and has only a moderately controlling influence. A strong focus of the role is on the interpretation of results for managers. From an interpersonal point of view, these findings suggest that the hybrid accountant interacts regularly with managers and has a strong presence on cross-functional teams. Finally, the hybrid accountant has a strong voice within the organisation. However, a number of observations were noted in relation to the 'hybrid accountant' phenomenon in the context of these eighteen cases:

190

a) The findings suggest that very particular circumstances may be associated with these MA's hybrid role (discussed in the context of heterogeneous MA roles in 7.3.1 above).

b) The managers in the Participator group worked with the MA in cultivating the hybrid role (also discussed in the context of heterogeneous MA roles in 7.3.1 above).

c) The managers in the Participator group required the historical, financial information first. Once they had this they welcomed the MA's wider input (discussed in the context of the expectations of managers in 7.3.3 above).

7.3.5 Factors Inhibiting the Development of the Hybrid Accountant

These findings suggest several factors which may be associated with the MAs lack of progression into a broader MA role. Overall, the MAs scored higher in relation to those characteristics perceived to be more important for control. Similarly, they fell short of expectation in relation to those SACs considered significantly more important for DM. This suggests that the MAs were generally more suited to the control element of their roles (6.7.2). Most of the managers, at some point in the interview, mentioned the lack of timeliness as a key weakness in the MAs' information provision and most conceded that this was due to how exceptionally busy the MAs were. In this study, many of the MAs appeared to be too busy to become more involved in DM (6.7.5). The managers appreciated the MA for their honest, impartial input and some indicated that this is what set them apart from alternative information providers. However, many of the managers indicated that the MA was simply too honest to play a wholly collaborative role on a DM team (6.7.6). Most of the managers interviewed were clear that the MA was ultimately not responsible for the decisions being taken, and so could never be considered truly equal members of a DM team. These managers did not consider the MA to be a true stakeholder in the decision (6.7.7).

Several factors may be associated with the role of the MA (i.e. those indicated in section 7.3.1). Some MAs were overcoming the obstacles described above and appeared to be developing a hybrid role (e.g. the Participators discussed in section 7.3.4) and some managers simply did not want their MAs to develop a hybrid role

(e.g. the managers in the Interpreter group discussed in section 7.3.3). The factors described in this section merely represent the general views of managers in relation to the MA's overall suitability for the hybrid accountant role.

7.3.6 Perceived Conflicts in the MA's Role

Managers were specifically asked in this study if they perceived a conflict in the MA's ability to contribute to both control and DM. The answers varied but were consistent within the MA groups. Managers in the Reporter and Guardian groups perceived significant conflict (6.2.1-6.2.2). Managers in the Interpreter group perceived less conflict than those in the Reporter and Guardian groups (6.2.3) and managers in the Participator group perceived no conflict (6.2.4).

There is a body of literature which addresses the conflicts inherent in the MA's role (Perrow, 1970; Sathe, 1978; Hopper, 1980; Sathe, 1982; Granlund and Lukka, 1998). These findings highlight factors which may influence the extent to which the MA may be capable of overcoming these inherent conflicts.

Conflict in the MA's role may be influenced by the individual MA.

On one level, the knowledge, traits and abilities of the individual MA may be influencing the extent to which the MA is perceived to overcome these conflicts. The Reporters and Guardians were described as lacking the 'creativity' and 'business understanding' required to contribute to DM in a satisfactory manner. The Interpreters were accused of being 'cost conscious', 'conservative' and 'incapable of taking off their controlling hat' while the Participators were described as 'enlightened' and 'supportive' (7.2.6). This was not specifically addressed in the study but these findings suggest that the MAs' individual traits and abilities will influence the extent to which they can overcome any inherent conflicts in their ability to contribute adequately to control and DM.

192

Conflict in the MA's role may be influenced by the individual manager.

On another level, the findings suggest that the managers themselves may be influencing the levels of conflict within the MA's diverse role (6.5.1). The managers in the Reporter and Guardian groups were expressly opposed to the MAs' increased involvement in DM (5.7.1). The managers in the Interpreter group had very specific ideas about what the MA's role in DM was (5.7.2), while the managers in the Participator group described the MA's full involvement in both control and DM as 'mutually supportive' and 'necessary' (5.7.3). The findings have already suggested that managers have a responsibility to help the MA to do a better job at meeting managerial needs (7.3.1). In the same way, this study suggests that managers have a responsibility to work with MAs to overcome any inherent conflicts in their role. The managers in the Participator group have achieved this, the managers in the Interpreter group have achieved it to a lesser extent and the managers in the Reporter and Guardian groups have not attempted it at all.

Conflict in the MA's role may be influenced by the control culture of the organisation.

The issue of conflict may be influenced at a much deeper level than the manager or the MA. The findings suggest a correlation between the control culture of the organisation and the perceived conflicts in the MA's role. Managers in the Reporter and the Guardian groups perceive sufficient conflict in the MA's role, to prevent the MA from contributing to DM in any way. The Reporters and Guardians operate within traditional control systems as portrayed by Otley and Berry (1980). The Reporters rely on Simons' (1995) diagnostic control systems and the Guardians base their control style on Simons' boundary control systems.

Meanwhile, the managers in the Interpreter group perceive far less conflict and managers in the Participator group do not perceive any conflict at all. The Interpreters and Participators work within a far more progressive and contemporary style of control as presented by Otley (1999). The Interpreters embrace Simons' (1995) belief systems and the Participators function within a much more enabling type of control encouraged by Simons' belief and interactive systems (6.3.2-6.3.3).

In this way, the findings suggest that a traditional control approach contributes to increased conflict in the MAs ability to contribute simultaneously to control and DM. Alternatively, a modern control approach, may encourage the MA to play a broader role in the organisation and therefore lessens the conflicts inherent in the MA's ability to contribute to DM as well as control.

The contribution of these findings to the conflict literature is discussed in section 7.5.4.

7.4 STRENGTHS AND LIMITATIONS OF THE STUDY

In this section, the strengths and limitations of the study are outlined so that the findings and conclusions can be put into context.

7.4.1 Strengths

The strengths of the study may be summarised as follows:

- The study builds on an existing body of research including the key management accounting, control and DM frameworks as well as extensive literature addressing the MA's evolving role.
- This study of the role of the MA is based on the perceptions of managers. According to Pierce and O'Dea (2003), MAs' own responses may be susceptible to response bias and will provide little insight into the MAs' capacity to satisfy the needs of managers. In addition, the study covers a broad range of managers, from varying functional areas and varying types of organisation, ensuring a broad spectrum of responses.
- A rigorous approach was adopted in conducting the interviews and analysing the data, the details of which are presented in sections 4.3.6, 4.4.1 and 4.4.2. Several measures were taken in order to maximise the validity of the qualitative findings including respondent validation, triangulation and analytical induction (4.5).

7.4.2 Limitations

The key findings, conclusions and implications of the study must be interpreted in light of the limitations of the study, which are set out below:

- The study focused on eighteen managers and while the findings may suggest correlations and associations between variables, these results cannot be extrapolated to a wider population.

- An interview approach has the limitation that the lack of anonymity may result in bias arising from the interviewee's reluctance to confess to any personal experiences which may reflect badly on them. This might be particularly pertinent in this study as the MA's performance may well be affected by the manager's own approach. However, the managers were guaranteed their anonymity and appeared to speak freely during the interviews.

- Qualitative data gathering and analysis inevitably results in the use of some judgement and subjectivity. Steps were taken to increase objectivity in this regard (4.5).

- Given the gaps in the literature in terms of managers' perceptions of the role of the MA, at the study design phase it was decided to focus exclusively on the perceptions of managers. An interview with the corresponding MA in each organisation, in order to corroborate the responses of the managers, was beyond the scope of this study.

- This study examined managers' perceptions of the conflicts inherent in the MA's role. A complete review of such conflicts would have required MAs to be interviewed also. This was beyond the scope of this study.

- The development of an in depth profile of each manager in terms of reporting structure, personal style, education, training, experience, strengths and weaknesses was beyond the scope of the study. A similar profile of the MAs was also beyond the scope of the study. To this end, it was not possible to draw any conclusions as to the effect of any of these factors on managers' perceptions of the role of the MA.

- Lastly, a detailed review of the effect of the functional orientation of the managers was also beyond the scope of this study though this did emerge

during the study as a possible area of research interest (5.3.1). The eighteen managers were sourced randomly and numbers of managers from specific functions were too small to facilitate meaningful comparisons.

7.5 CONTRIBUTION TO THE LITERATURE

The contribution of the study can be divided into contributions made to the control literature (7.5.1), to the body of literature surrounding the MA's role (7.5.2), to the literature relating to contingency theories of management accounting (7.5.3) and to the role conflict literature (7.5.4).

7.5.1 Contribution to Control Literature

The taxonomy of MAs outlined in section 6.2 is consistent with the progression of thought with regard to control as presented in the literature (section 6.3). The Interpreters and Participators represent the modern understanding of control captured in Otley's (1999) framework as well as the belief and interactive levers of Simons' (1995) control framework. The Reporters and Guardians represent a more traditional view of control reflected in Otley and Berry's (1980) framework as well as the diagnostic and boundary levers of Simons (1995) framework. The findings of this study broaden our understanding of these control frameworks by suggesting that specific styles of control will only be successfully executed in specific organisational circumstances (7.3.2). Specifically there was evidence that:

- industry sector is an important factor affecting the control culture of a company (6.4.1).
- growing competitive pressures are associated with a greater emphasis on Simons' (1995) belief systems of control (6.4.2).
- increased financial security is associated with Simons' (1995) interactive systems of control (6.4.3).
- a strong influence from corporate head office appeared to encourage Simons' (1995) diagnostic control systems (6.4.4).
- increased local autonomy within the organisation is associated with Simons' (1995) belief and interactive control systems (6.4.4).

The study further broadens our understanding of the control frameworks by identifying how relationships and interactions between individuals influence the style of control executed in an organisation (7.3.2). Specifically there was evidence that:

- the relationship between the manager and the MA may influence the control culture within the organisation (6.5.3).

- More independent managers may be associated with organisations with traditional control approaches (6.5.4).

- more territorial managers are more likely to operate within basic diagnostic and boundary control systems (6.5.5).

- a modern approach to control (Otley, 1999) is more likely to be successfully executed in an organisation where the MA has a strong understanding of the business (6.6.1).

- a modern style of control is more likely to be successfully executed in organisations with a culture of interaction and open communications (6.6.2).

7.5.2 Contributions to Literature Relating to the Role of the MA

This study addressed a gap in the literature in which managers perceptions of the MA's role had not been examined in detail (Pierce and O'Dea, 2003). The conclusions highlighted in section 7.3.3 have resulted in a deeper understanding of what managers are looking for in the context of support for control and DM and provides an insight into levels of satisfaction among managers with the role played by their MA in this regard. In particular the conclusions outlines in 7.3.4 and 7.3.5 have facilitated the development of a deeper understanding of the concept of the hybrid accountant than had previously been put forward in the literature. Specifically, the study contributes to the MA role literature as follows:

- Previous studies have reviewed the importance of various characteristics of information (2.6). This study provides a deeper level of understanding by identifying that managers have different information requirements depending on whether the information is for control or DM (6.7.1).

- Similarly, previous studies have focused on the importance of various SACs in their MA (3.8). This study provides a greater understanding of the importance of these SACs by identifying that managers value different SACs

in their MA when they are engaged in control as opposed to when they are engaged in DM (6.7.1).

- The study provides empirical evidence of the needs of managers and the performance of MAs relative to those needs. Prior studies in this regard have focused on anticipated requirements in the future and predicted changes in the coming years (3.7.6). This study provides an up-to-date account of managers' perceptions of the role of the MA.

- Prior studies have described the modern MA as a hybrid accountant engaging in effective control, in combination with a highly collaborative business partner role. These studies have reported the traditional, more numerically oriented MA to be antiquated and redundant (3.7). This study provides a more comprehensive insight into the modern role of the MA. Firstly, it offers a detailed description of the hybrid accountant as identified in the findings (7.3.4). Secondly, it found that the MA's role (6.2) is impacted by several factors, relating to the organisation (6.4), the manager (6.5) and the MA (6.6), which suggests that while the 'hybrid accountant' described in the literature does exist, he/she can only exist in certain circumstances. Thirdly, in contrast with much of the literature in this area, it found that managers generally value and rely upon many of the aspects of the traditional MA and some quite simply do not desire a hybrid accountant (6.7.3). Finally, it uncovered three key factors impeding the MA's pursuit of the hybrid accountant role- MAs considered are too busy (6.7.5), too honest (6.7.6) and not considered by managers to be true stakeholders in DM (6.7.7).

7.5.3 Contributions to Contingency Literature

This study provides a deeper and more contemporary insight into contingency research surrounding the MAs role (7.3.1). It describes how various organisational factors may be associated with the role played by the MA in the context of control and DM, i.e. industry (6.4.1), level of competition (6.4.2), financial security (6.4.3) and group structure (6.4.4). These findings would support much of the contingency research which found that similar factors- technological development (Piper, 1978; Daft and Macintosh, 1978), level of competition (Khandwalla, 1972), financial security (Otley, 1978; Langfield-Smith, 1997) and group structure (Horngren, 1972;

Hopwood, 1972; Otley, 1978)- were all important factors determining the effectiveness of MASs.

Chenhall (2003) suggested that future contingency-based research should focus on interactions between individuals and groups which might impact the MAs role within the MAS. The study provides evidence that the relationship between the MA and the manager (6.5.3), the extent of manager independence from the MA (6.5.4) and levels of manager territorialism (6.5.5) may be associated with the role played by the MA.

7.5.4 Contributions to the Role Conflict Literature

The literature has identified how the MA's role as a simultaneous 'controller' and 'supporter' is inherently conflicting (3.7.9). In order to successfully carry out both aspects of the role, the MA must overcome these conflicts. This study contributed to this literature by identifying some factors which may be associated with increased conflict in the MA's role (7.3.6).

- Firstly, the findings suggested that, in some cases, the MA does not have the requisite knowledge, traits and abilities to overcome the inherent conflicts meaning that the conflict issue may be attributable to the individual MA.

- Secondly, the study suggests that the managers themselves have a responsibility to help the MA to overcome these conflicts and if the manager is not motivated to do so, the conflicts will remain, suggesting that the conflict issue may also be attributable to the manager.

- Finally, the findings suggest a correlation between the control culture of the organisation and the conflict in the MA's role. Managers in organisations with traditional control systems- as modelled in Otley and Berry (1980) and Simons' (1995) diagnostic and boundary control systems- perceived a strong conflict in the MA's ability to contribute to both control and DM. Conversely, managers in organisations with modern and progressive control systems- as modelled in Otley (1999) and Simons' (1995) belief and interactive control systems- perceived comparatively less conflict in the MA's role.

7.6 SUGGESTIONS FOR FUTURE RESEARCH

A number of directions for future research emerge from the findings, conclusions, and limitations of the current study:

- Detailed case study analysis of cases within each MA group would allow a researcher to develop a deeper understanding of how the four types of MA operate and what other factors might influence how they perform their roles. Longitudinal studies could trace developments in the MA's role as the key contingent variables develop (for example, organisation take-over, growth in competition, new management structures).

- This study asked managers what they expect from their MA and how they perceive the MA to be performing relative to expectation. Future research on this topic could extend this line of enquiry to incorporate the perceptions of MAs. Both parties could corroborate each-others responses. In addition, it would be useful to ascertain if the MAs' perceptions differ from the managers.

- Section 7.5.4 provides the contribution of this study to the role conflict literature. Further analyses of the conflicts in the MA's role as a simultaneous controller and supporter should incorporate the views of MAs as well as managers. This would facilitate a deeper understanding of the factors influencing these conflicts. It would be useful to further explore the effect of the individual managers and MAs on the conflicts in the MAs' role.

- These findings presented the possibility of manager territorialism as a contemporary contingent factor influencing the role of the MA. These findings were consistent with the literature regarding strong versus weak managers (6.5.5). This issue was not specifically addressed in this study. A thorough analysis would have required a detailed profile of each manager and MA in each organisation which was beyond the scope of the study. This does represent a strong opportunity for future research.

- This study presented some initial findings in relation to the effects of managerial function on the role of the MA, which were consistent with the literature (6.5.2). Managerial function was not a specific focus of the study so further analysis was not possible but it would also be useful to extend the

study to analyse the effect of the manager's functional orientation on their requirements.

- Other variables emerged throughout the findings as potential contingent factors effecting the managers' requirements as well as the MAs' ability to meet these requirements. A detailed analysis of these factors was beyond the scope of this study, i.e. the educational background of the manager, for example business or engineering (suggested by Manager F), the professional training route of the MA, for example audit or industry (suggested by Manager E), the career ambitions of the MA (suggested by Manager J), the length of service of either the manager or the MA (suggested by Manager G). This would follow Chenhall's (2003) suggestions that future contingency-based research should focus on more sociologically based contingent factors.

7.7 CONCLUSION

Chapter 7 presented an overview of the research undertaken, together with the key findings and conclusions of the study. The chapter also detailed the study's contribution to the literature as well as its' strengths and limitations and some possible suggestions for future research.

This study specifically addressed a gap in the empirical literature by examining managers' perceptions of the role of the MA in providing information for control and DM. It identified a diverse range of MA roles and highlighted several factors which may be associated with the particular role played by the MA. It found that not all managers are relentlessly seeking hybrid accountants or business partners as the literature would suggest, and suggests that those that do, still value many of the characteristics and traits of the traditional MA. In examining the MA's role from a manager's perspective, the study contributed to the literature by presenting an up-to-date description of the hybrid accountant. In doing so, some obstacles were identified, which the MA must overcome in order to develop a hybrid role. As well as contributing to the MA role literature, the findings contributed significantly to the control literature by identifying how the style of control executed in an organisation may be associated with the role played by the MA. It added to the contingency theories of management accounting by responding to Chenhall's (2003) suggestion

to examine the effects of some sociologically derived contingent factors on the role of the MA. Finally the findings contributed to the role conflict literature by providing an up-to-date analysis of the conflicts in the MA's role from the perspective of managers, and identifying some factors which may be associated with the perceived conflicts in the MAs role.

The findings identified several opportunities for future research. Future studies could be expanded to include MAs which would facilitate a comparison of the managers perceptions with those of the MAs. Such an expansion would also facilitate a more detailed analysis of the individual manager or MA related factors influencing the conflicts in the MA's role. A combined emphasis on the manager and the MA would also allow an examination of the impact of the strength or weakness of the manager on the role of the MA. Regardless of the direction of the future research, there can be no doubt that detailed case study analyses and longitudinal studies could certainly provide a deeper understanding of the MA's role.

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APPENDICES

LIST OF APPENDICES

APPENDIX A

Interview Guide

1. State brief objective of research

2. First of all, could you tell me a little about your role in the company?

3. What role does the MA play in your company, and specifically in the performance of your job?

4. Could you isolate some tasks, which you face on a daily, weekly, monthly, annual or perhaps even once-off basis for which you require information?
   - Focusing particularly on information within the financial arena. Not necessarily purely financial information, but information, which is used in quite a financial context, e.g. pricing decisions, monitoring of subordinate target achievement, monitoring of a sub units profitability, capital investment decisions, production yield analysis, changing suppliers, etc.
   - Aim to isolate some different examples, each for control and DM, if you've ascertained the split, suggest it back to confirm if it appears reasonable.

   Write these down on the pad on the desk and use them continuously to refer back to them.

5. Where do you get this information?
   Tie in with role of MA above and clear any inconsistencies

6. In an ideal world, how would you rate the importance of these characteristics of such information (using list of characteristics)?
   - How important is each to you in control information?
   - How does the relative importance of each characteristic differ for DM information?

   Refer to the above-mentioned page all the time, ensuring to cover both angles.

7. How does your MA perform in each instance relative to your expectations (*using list of characteristics again*)?
   - *Consider both tasks, refer to paper.*
   - *Highlight deficiencies (/strengths) in the information provided by finance.*
   - If the MA provides little information, ask what is lacking in their information, which caused them to abandon them.

8. Where else do you source this type of information if the MA is not providing it?
   - Highlight strengths (/deficiencies) in the information provided by the alternative.
   - Have you any particular reason or example as to why you perceive the alternative to be better at providing information of this type.

9. Moving on now from the qualities of the information itself and focusing more on the qualities of the information provider. It is expected that possible deficiencies in the quality of information from particular sources may be explained by the skills and competencies of those who provide it, conversely, strengths in the quality of information should also be explained by the skills and competencies of those sources.

10. How important would you perceive these attributes, skills and competencies of in those who provide you with such information (use list of a, s and c)?
    - How important are they in a provider of control information?
    - Does this importance differ for a provider of DM information?
    Refer to pad containing examples.

11. How does your MA perform in each instance relative to your expectations?
    - Highlight deficiencies (/strengths) in the skills and competencies of the MA.
    Ensure to draw out responses, strong potential for depth.

12. If the MA does not provide this information, query the manager about the alternative?
    - Highlight strengths *(/deficiencies)* in the skills and competencies of the alternative.
    - Have you any particular reason or example as to why you perceive the alternative department in this way.
    - What is it about your MA in this respect that caused you to abandon them.
    Ensure to draw out responses, strong potential for depth.

13. Would you perceive any conflicts arising as a result of one person providing you with information for both purposes?
    - Refer specifically to the examples provided earlier in the interview. Do their strengths in providing information for some purposes compromise their ability to provide information for other purposes
    - Have you any particular reason or examples as to why you would perceive this to be the case?
    - Specifically, what causes this conflict?

Interview Questionnaire

How important do you perceive the following information characteristics to be in control information?

	Not at all Important 1	Somewhat Important 2	Quite Important 3	Very Important 4	Extremely Important 5
Accuracy					
Consistency					
Reliability					
Timeliness					
Aggregation					
Relevance					
Flex. & Ad					
Scope					

How important do you perceive the following information characteristics to be in decision-making information?

	Not at all Important 1	Somewhat Important 2	Quite Important 3	Very Important 4	Extremely Important 5
Accuracy					
Consistency					
Reliability					
Timeliness					
Aggregation					
Relevance					
Flex. & Ad					
Scope					

How does your management accountant perform in terms of providing information with these characteristics?

	Bad 1	Poor 2	Quite Good 3	Very Good 4	Excellent 5
Accuracy					
Consistency					
Reliability					
Timeliness					
Aggregation					
Relevance					
Flex. & Ad					
Scope					

How important do you perceive the following skills, attributes and competencies to be in providers of control information?

	Not at all Important 1	Somewhat Important 2	Quite Important 3	Very Important 4	Extremely Important 5
Ethics					
Honesty					
IT Skills					
Precision					
Financial Exp					
Impartiality					
Problem solving & Anal. skills					
Team-skills					
Single-mindedness					
Sound business understanding					
Conservativeness					
Interp & Comm. Skills					
Creativity					

How important do you perceive the following skills, attributes and competencies to be in providers of decision-making information?

	Not at all Important 1	Somewhat Important 2	Quite Important 3	Very Important 4	Extremely Important 5
Ethics					
Honesty					
IT Skills					
Precision					
Financial Exp					
Impartiality					
Problem solving & Anal. skills					
Team-skills					
Single-mindedness					
Sound business understanding					
Conservativeness					
Interp & Comm. Skills					
Creativity					

How does your management accountant perform in terms of exhibiting these skills, attributes and competencies?

	Bad 1	Poor 2	Quite Good 3	Very Good 4	Excellent 5
Ethics					
Honesty					
IT Skills					
Precision					
Financial Exp					
Impartiality					
Problem solving & Anal. skills					
Team-skills					
Single-mindedness					
Sound business understanding					
Conservativeness					
Interp & Comm. Skills					
Creativity					

Sample Letter Requesting Interview

Orla Feeney
40 The Street
The Village
Co. Dublin

Ms A Smith   2 July 2004
MA
ABC Ltd.
Main Road
Dungarvan
Co. Waterford

Dear Ms Smith

My name is Orla Feeney and I am currently pursuing a Masters Degree by Research in affiliation with Dublin City University. I am a member of the Institute of Chartered Accountants of Ireland and a practicing MA working within the Pharmaceutical Industry.

In fulfilment of this Masters Degree I am researching the role of the finance function within the organisation, and specifically, the perception held by managers with regard to this role.

To complete my research I must interview a sample of managers in industry with regard to their use of the management accountant. I am targeting middle managers who are responsible for a division, area, department or activity within the organisation.

To this end, I would be extremely grateful if you could provide me with a contact name of somebody in your company who might fit this description. The interview would take between forty minutes and one hour. If preferred, I could forward a brief outline of my proposed discussion topics in advance. This research is purely for academic purposes and would be entirely confidential. Under no circumstances would any company or individual details be disclosed.

I hope you will not mind if I take the liberty of following this letter up with a phone call in the next week. However, in the meantime, should you wish to contact me for any reason, my contact details are indicated at the bottom of this page.

Thank you for taking the time to read my letter. I am all too aware of how precious time is in a busy office and appreciate your patience.

For your information I obtained your contact details from the CIMA member's directory.

Many thanks, and,

Yours sincerely

_____

Orla Feeney

Manager Profiles

Mgr	Function	Org Ownership	Industry	Turnover*	MA Classification
A	MD	Irish subsidiary of European multinational	Telecomms components and software dev	Eur 220m	Reporter
B	Sales	Irish subsidiary of European multinational	Pharmaceuticals distribution	Eur 1,300m	Participator
C	Supply Chain	Irish subsidiary of US multinational	Pharmaceuticals sales, distribution and marketing	Eur 90m	Participator
D	Distribution	Irish subsidiary of US multinational	Software manufacturer/ distributor	Eur 8,000m	Participator
E	Production	Irish subsidiary of European multinational	Consumer products manufacture	Eur 270m	Reporter
F	Plant	Irish subsidiary of European multinational	Global innovation solutions provider	Eur 700m	Interpreter
G	Production	Irish subsidiary of US multinational	Biomedical manufacture	Eur 270m	Participator
H	Logistics	Irish owned multinational	Drinks production, sales and distribution	Eur 1,000m	Participator
I	Production	Indigenous Irish	Beverages/snack foods sales and distribution	Eur 900m	Guardian
J	MD	Indigenous Irish	Services subcontracting	Eur 40m	Interpreter
K	Production	Irish subsidiary of US multinational	Computer sales and services	Eur 500m	Interpreter
L	Director	Local county council	Housing dept	*Not Applicable*	Guardian
M	Production	Irish	Retail	Eur 80m	Interpreter

Mgr	Function	Org Ownership	Industry	Turnover*	MA Classification
		subsidiary of US multinational	pharmaceuticals products manufacture		
N	Sales	Irish branch of UK co	Transport and freight services	Eur 50m	Interpreter
O	Sales	Indigenous Irish	Biotechnology	*Not available*	Participator
P	Production	Irish subsidiary of Japanese multinational	Second stage pharmaceuticals manufacture	Eur 85m	Guardian
Q	Production	Irish subsidiary of US multinational	Bulk pharmaceuticals manufacture	Eur 100m	Guardian
R	Facilities	Irish subsidiary of US multinational	Computer manufacture	Eur 6,000m	Interpreter

* approximate figure for most recently published 12 month financial period

Breakdown of managers' responses in relation to the perceived importance of characteristics of information

		5	4	3	2	1	Mean Importance
Relevance	Control	15	2	1	0	0	4.78
	Decision Making	16	2	0	0	0	4.89
Reliability	Control	11	6	0	1	0	4.50
	Decision Making	12	5	0	1	0	4.56
Accuracy	Control	13	1	3	1	0	4.44
	Decision Making	11	2	0	5	0	4.06
Consistency	Control	4	10	4	0	0	4.00
	Decision Making	5	6	3	2	2	3.56
Flexibility & Adaptability	Control	2	13	2	1	0	3.89
	Decision Making	3	11	3	1	0	3.89
Timeliness	Control	3	7	5	3	0	3.56
	Decision Making	9	6	2	1	0	4.28
Aggregation	Control	1	9	5	3	0	3.44
	Decision Making	1	10	5	2	0	3.56
Scope	Control	2	5	7	1	3	3.11
	Decision Making	7	5	3	1	2	3.78

Breakdown of managers' responses in relation to the perceived importance of SACs of information providers

		5	4	3	2	1	Mean
Ethics	Control	15	3	0	0	0	4.83
	Decision Making	14	3	1	0	0	4.72
Honesty	Control	10	6	2	0	0	4.44
	Decision Making	10	6	2	0	0	4.44
Precision	Control	8	9	0	1	0	4.33
	Decision Making	7	8	0	3	0	4.33
Sound Business Understanding	Control	7	10	1	0	0	4.33
	Decision Making	11	7	0	0	0	4.61
IT Skills	Control	5	10	3	0	0	4.11
	Decision Making	7	8	3	0	0	4.22
Financial Expertise	Control	6	9	1	2	0	4.06
	Decision Making	5	9	2	2	0	3.94
Interpersonal and Communications Skills	Control	3	12	3	0	0	4.00
	Decision Making	8	9	1	0	0	4.39
Problem Solving and Analytical Skills	Control	5	7	4	2	0	3.83
	Decision Making	7	6	3	2	0	4.00
Team-skills	Control	4	9	3	1	1	3.78
	Decision Making	10	4	3	0	1	4.22
Impartiality	Control	6	4	5	2	1	3.67
	Decision Making	5	4	5	3	1	3.50
Creativity	Control	2	6	6	2	2	3.22
	Decision Making	8	3	3	2	2	3.72
Conservativeness	Control	0	1	9	3	5	2.33
	Decision Making	0	1	6	4	7	2.06
Single-Mindedness	Control	0	1	5	4	8	1.94
	Decision Making	1	0	5	4	8	2.00

APPENDIX G (RQ4)

Breakdown of managers' responses regarding MAs' performance in relation to information characteristics

	5	4	3	2	1	Mean
Accuracy	2	11	4	1	0	3.78
Consistency	2	11	4	1	0	3.78
Reliability	3	11	0	4	0	3.72
Timeliness	3	10	2	3	0	3.72
Aggregation	2	8	2	6	0	3.33
Relevance	3	7	2	3	3	3.22
Flexibility and Adaptability	0	9	2	5	2	3.00
Scope	0	4	6	6	2	2.67

Breakdown of managers' responses regarding MAs' performance in relation to the SACs

	5	4	3	2	1	Mean
Ethics	13	4	1	0	0	4.67
Honesty	11	6	1	0	0	4.56
IT Skills	7	10	1	0	0	4.33
Precision	8	8	0	2	0	4.22
Financial Expertise	5	11	2	0	0	4.17
Impartiality	5	9	2	2	0	3.94
Problem Solving and Analytical Skills	2	7	6	3	0	3.44
Sound Business Understanding	0	8	5	4	1	3.11
Single Mindedness	0	6	9	2	1	3.11
Team-skills	1	6	6	4	1	3.11
Conservativeness	0	5	7	3	3	2.78
Interpersonal and Communications Skills	0	5	3	10	0	2.71
Creativity	0	2	7	6	3	2.44

APPENDIX I (RQ1)

Wilcoxon signed rank testing of significance of difference between perceived importance of characteristics in <u>control</u> information

Characteristic 1	Mean	Characteristic 2	Mean	Z Score	P Score
Relevance	4.78	Reliability	4.50	21	0.2969
Relevance	4.78	Accuracy	4.44	17	0.2188
Relevance	4.78	Consistency	4.00	73.5	**0.0049** ** Note 1
Reliability	4.50	Accuracy	4.44	12	0.8438
Reliability	4.50	Consistency	4.00	46	0.6450
Reliability	4.50	Flexibility and Adapt.	3.89	86.5	**0.0353** * Note 2
Accuracy	4.44	Consistency	4.00	83	0.2078
Accuracy	4.44	Flexibility and Adapt.	3.89	43	**0.0443** * Note 3
Consistency	4.00	Flexibility and Adapt.	3.89	22	0.6406
Consistency	4.00	Timeliness	3.56	74	0.1937
Consistency	4.00	Aggregation	3.56	67	**0.0269*** Note 3
Flexibility and Adapt.	3.89	Scope	3.11	92	0.1122 Note 4

Significance levels   *0.05   **0.01*

Note 1: In control information, relevance is perceived to be significantly more important than consistency and all lower ranked characteristics as indicated at table 1 at section 5.1

Note 2: In control information, accuracy is perceived to be significantly more important than flexibility and adaptability and all lower ranked characteristics as indicated at table 1 at section 5.1

Note 3: Same rational as explained at notes 1 and 2.

Note 4: In control information, there is no significant difference between lowest 4 ranked characteristics as indicated at table 1 at section 5.1.

Wilcoxon signed rank testing of significance of difference between perceived importance of characteristics in DM information

Characteristic 1	Mean	Characteristic 2	Mean	Z Score	P Score	
Relevance	4.89	Reliability	4.56	18	0.1563	
Relevance	4.89	Timeliness	4.28	41.5	**0.0273 ***	Note 1
Reliability	4.56	Timeliness	4.28	31.5	0.3594	
Reliability	4.56	Accuracy	4.06	41	0.1934	
Reliability	4.56	Flexibility and Adapt.	3.89	75.5	**0.0298 ***	Note 2
Timeliness	4.28	Accuracy	4.06	53	0.6355	
Timeliness	4.28	Flexibility and Adapt.	3.89	45	0.0840	
Timeliness	4.28	Scope	3.78	56	0.2036	
Timeliness	4.28	Aggregation	3.56	92	**0.0107 ***	Note 2
Accuracy	4.06	Consistency	3.56	64	0.2163	Note 3

Significance levels   *0.05   **0.01

Note 1: In DM information, relevance is perceived to be significantly more important than timeliness and all lower ranked characteristics as indicated at table 1 at section 5.1

Note 2: Same rational as explained at note 1.

Note 3: In DM information, there is no significant difference between lowest 5 ranked characteristics as indicated at table 1 at section 5.1.

Wilcoxon signed rank testing of significance of difference between perceived importance of SACs in providers of <u>control</u> information

SAC 1	Mean	SAC 2	Mean	Z Score	P Score
Ethics	4.83	Honesty	4.44	15	0.0625
Ethics	4.83	Precision	4.33	28*	**0.0156 *** Note 1
Honesty	4.44	Precision	4.33	9	0.8125
Honesty	4.44	SBU	4.33	38.5	0.7002
Honesty	4.44	IT Skills	4.11	52.5	0.3394
Honesty	4.44	Financial Expertise	4.06	27.5	0.2500
Honesty	4.44	Interpersonal and communication skills	4.00	52.5	0.1016
Honesty	4.44	Problem solving	3.83	45	0.0840
Honesty	4.44	Team-skills	3.78	54	0.0674
Honesty	4.44	Impartiality	3.67	34	**0.0234 *** Note 2
Precision	4.33	SBU	4.33	30	0.8457
Precision	4.33	IT Skills	4.11	45	0.3203
Precision	4.33	Financial Expertise	4.06	22	0.2188
Precision	4.33	Interpersonal and communication skills	4.00	33.5	0.2500
Precision	4.33	Problem solving	3.83	34.5	0.2031
Precision	4.33	Team-skills	3.78	38	0.0742
Precision	4.33	Impartiality	3.67	28	**0.0156 *** Note 2
Sound Bus Understanding	4.33	IT Skills	4.11	27	0.2500
Sound Bus Understanding	4.33	Financial Expertise	4.06	58.5	0.4143
Sound Bus Understanding	4.33	Interpersonal and communication. skills	4.00	36	0.1289
Sound Bus Understanding	4.33	Prob Solving	3.83	43	0.1309
Sound Bus Understanding	4.33	Teamskills	3.78	47	0.0488
Sound Bus Understanding	4.33	Impartiality	3.67	92.5	0.0730
Sound Bus Understanding	4.33	Creativity	3.22	99.5	**0.0017**** Note 2
IT Skills	4.11	Financial Expertise	4.06	23	1.0000

SAC 1	Mean	SAC 2	Mean	Z Score	P Score
IT Skills	4.11	Interpersonal and communication. skills	4.00	22.5	0.6406
IT Skills	4.11	Prob Solving	3.83	59.5	0.3737
IT Skills	4.11	Teamskills	3.78	46	0.2783
IT Skills	4.11	Impartiality	3.67	92.5	0.2312
IT Skills	4.11	Creativity	3.22	70	**0.0122 *** Note 2
Financial Expertise	4.06	Interpersonal and communication skills	4.00	28	1.0000
Financial Expertise	4.06	Prob Solving	3.83	61.5	0.6257
Financial Expertise	4.06	Teamskills	3.78	41.5	0.5195
Financial Expertise	4.06	Impartiality	3.67	44	0.3652
Financial Expertise	4.06	Creativity	3.22	72	0.0681
Financial Expertise	4.06	Conservativeness	2.33	149.5	**0.0001 ** Note 2**
Interpersonal and communication skills	4.00	Prob Solving	3.83	44.5	0.7334
Interpersonal and communication skills	4.00	Teamskills	3.78	19	0.4688
Interpersonal and communication skills	4.00	Impartiality	3.67	54	0.2661
Interpersonal and communication skills	4.00	Creativity	3.22	56	**0.0420 *** Note 2
Prob Solving	3.83	Teamskills	3.78	43	0.7910
Prob Solving	3.83	Impartiality	3.67	36	0.8311
Prob Solving	3.83	Creativity	3.22	42	**0.0195 *** Note 2
Teamskills	3.78	Impartiality	3.67	62.5	0.5840
Teamskills	3.78	Creativity	3.22	66	0.1677
Teamskills	3.78	Conservativeness	2.33	142	**0.0008 ** Note 2**
Impartiality	3.67	Creativity	3.22	59	0.3757
Impartiality	3.67	Conservativeness	2.33	94.5	**0.0067 ** Note 2**
Creativity	3.22	Conservativeness	2.33	72	**0.0081 ** Note 2**
Conservativeness	2.33	Single mindedness	1.94	32	**0.0912** Note 3

Significance levels   *0.05   **0.01

Note 1: In providers of control information, ethics is perceived to be significantly more important than precision and all lower ranked characteristics as indicated at table 2 at section 5.2

Note 2: Same rational as explained at note 1.

Note 3: In providers of control information, there is no significant difference between 2 lowest ranked characteristics as indicated at table 2 at section 5.2.

Wilcoxon signed rank testing of significance of difference between perceived importance of SACs in providers of DM information

SAC 1	Mean	SAC 2	Mean	Z Score	P Score
Ethics	4.72	Sound business understanding	4.61	7.5	0.6250
Ethics	4.72	Honesty	4.44	10	0.1250
Ethics	4.72	Interpersonal and communication skills	4.39	28.5	0.1953
Ethics	4.72	Precision	4.33	33	**0.0391 *** Note 1
Sound business understanding	4.61	Honesty	4.44	15	0.4375
Sound business understanding	4.61	Interpersonal and communication skills	4.39	27	0.2500
Sound business understanding	4.61	Precision	4.33	30	0.1094
Sound business understanding	4.61	IT Skills	4.22	45	0.0840
Sound business understanding	4.61	Teamskills	4.22	39	0.2754
Sound business understanding	4.61	Problem solving	4.00	33	**0.0391 *** Note 2
Honesty	4.44	Interpersonal and communication skills	4.39	35.5	0.8984
Honesty	4.44	Precision	4.33	17	0.2188
Honesty	4.44	IT Skills	4.22	48	0.5186
Honesty	4.44	Teamskills	4.22	46	0.6221
Honesty	4.44	Problem solving	4.00	22.5	0.2188
Honesty	4.44	Financial Expertise	3.94	25.5	0.0781
Honesty	4.44	Creativity	3.72	67	0.1465
Honesty	4.44	Impartiality	3.50	52.5	**0.0098 **** Note 2
Interpersonal and communication skills	4.39	Precision	4.33	32	0.5311
Interpersonal and communication skills	4.39	IT Skills	4.22	24	0.4609
Interpersonal and communication skills	4.39	Teamskills	4.22	17.5	0.6875

SAC 1	Mean	SAC 2	Mean	Z Score	P Score
Interpersonal and communication skills	4.39	Problem solving	4.00	63	0.2439
Interpersonal and communication skills	4.39	Financial Expertise	3.94	41.5	0.1934
Interpersonal and communication skills	4.39	Creativity	3.72	44.5	0.1055
Interpersonal and communication skills	4.39	Impartiality	3.50	88.5	**0.0245 *** Note 2
Precision	4.33	IT Skills	4.22	35	0.7910
Precision	4.33	Teamskills	4.22	35	0.4973
Precision	4.33	Problem solving	4.00	29	0.9219
Precision	4.33	Financial Expertise	3.94	26	0.7344
Precision	4.33	Creativity	3.72	63.5	0.5416
Precision	4.33	Impartiality	3.50	33.5	**0.0391 *** Note 2
IT Skills	4.22	Teamskills	4.22	26.5	1.0000
IT Skills	4.22	Problem solving	4.00	55.5	0.5417
IT Skills	4.22	Financial Expertise	3.94	42	0.4648
IT Skills	4.22	Creativity	3.72	54	0.2661
IT Skills	4.22	Impartiality	3.50	93.5	0.0637
IT Skills	4.22	Conservativeness	2.06	136	**0.0001 ** Note 2
Teamskills	4.22	Problem solving	4.00	51	0.7354
Teamskills	4.22	Financial Expertise	3.94	55.5	0.5417
Teamskills	4.22	Creativity	3.72	34	0.2031
Teamskills	4.22	Impartiality	3.50	91	0.0833
Teamskills	4.22	Conservativeness	2.06	167	**0.0001 ** Note 2
Problem solving	4.00	Financial Expertise	3.94	34.5	0.9658
Problem solving	4.00	Creativity	3.72	31	0.3594
Problem solving	4.00	Impartiality	3.50	43	0.4131
Problem solving	4.00	Conservativeness	2.06	102	**0.0006 ** Note 2
Financial Expertise	3.94	Creativity	3.72	68	0.6788
Financial Expertise	3.94	Impartiality	3.50	45.5	0.3203
Financial Expertise	3.94	Conservativeness	2.06	149.5	**0.0001 ** Note 2

SAC 1	Mean	SAC 2	Mean	Z Score	P Score
Creativity	3.72	Impartiality	3.50	50.5	0.7869
Creativity	3.72	Conservativeness	2.06	95	**0.0052** ** Note 2
Impartiality	3.50	Conservativeness	2.06	127	**0.001** ** Note 2
Conservativeness	2.06	Single Mindedness	2.00	36	**0.8311** Note 3

Significance levels   *0.05   **0.01*

Note 1: In providers of DM information, ethics is perceived to be significantly more important than precision and all lower ranked characteristics as indicated at table 2 at section 5.2

Note 2: Same rational as explained at note 1.

Note 3: In providers of DM information, there is no significant difference between 2 lowest ranked characteristics as indicated at table 2 at section 5.2.

APPENDIX M (RQ4)

Wilcoxon signed rank testing of perceived performance of MA with regard to information characteristics

Characteristic 1	Mean	Characteristic 2	Mean	Z Score	P Score
Accuracy	3.78	Consistency	3.78	18	1.0000
Accuracy	3.78	Reliability	3.72	30	0.8457
Accuracy	3.78	Timeliness	3.72	20	0.8438
Accuracy	3.78	Aggregation	3.33	41.5	0.1934
Accuracy	3.78	Relevance	3.22	48	0.2061
Accuracy	3.78	Flexibility and Adapt.	3.00	43	**0.0117 *** Note 1
Consistency	3.78	Reliability	3.72	30	0.8457
Consistency	3.78	Timeliness	3.72	16	0.8125
Consistency	3.78	Aggregation	3.33	33.5	0.2500
Consistency	3.78	Relevance	3.22	48	0.2061
Consistency	3.78	Flexibility and Adapt.	3.00	52	**0.0098 **** Note 2
Reliability	3.72	Timeliness	3.72	27.5	0.9212
Reliability	3.72	Aggregation	3.33	38.5	0.3233
Reliability	3.72	Relevance	3.22	46	0.2783
Reliability	3.72	Flexibility and Adapt.	3.00	55	**0.0020 *** Note 2
Timeliness	3.72	Aggregation	3.33	45	0.3203
Timeliness	3.72	Relevance	3.22	55.5	0.2334
Timeliness	3.72	Flexibility and Adapt.	3.00	42.5	**0.0195 **** Note 2
Aggregation	3.33	Relevance	3.22	54	0.9515
Aggregation	3.33	Flexibility and Adapt.	3.00	44	0.3652
Aggregation	3.33	Scope	2.67	68	**0.0210 *** Note 2
Relevance	3.22	Scope	2.67	66	0.1677 Note 3

*Significance levels   *0.05   **0.01*

Note 1: MA's are perceived to perform significantly better with regard to reliability than with regard to flexibility and adaptability and all those lower ranked characteristics as indicated at table 3 at section 5.4

Note 2: Same rational as explained at note 1.

Note 3: There is no significant difference between lowest 3 ranked characteristics as indicated at table 3 at section 5.4.

APPENDIX N (RQ5)

Wilcoxon signed rank testing of perceived performance of MAs with regard to SACs

SAC 1	Mean	SAC 2	Mean	Z Score	P Score
Ethics	4.67	Honesty	4.56	10	0.6250
Ethics	4.67	IT Skills	4.33	24.5	0.1094
Ethics	4.67	Precision	4.22	29	0.1484
Ethics	4.67	Financial Expertise	4.17	46	0.0645
Ethics	4.67	Impartiality	3.94	51	**0.0137 *** Note 1
Honesty	4.56	IT Skills	4.33	21	0.2969
Honesty	4.56	Precision	4.22	18	0.1563
Honesty	4.56	Financial Expertise	4.17	48	0.0840
Honesty	4.56	Impartiality	3.94	60.5	**0.0137 *** Note 2
IT Skills	4.33	Precision	4.22	25	0.8203
IT Skills	4.33	Financial Expertise	4.17	12	0.3125
IT Skills	4.33	Impartiality	3.94	29	0.1484
IT Skills	4.33	Problem solving	3.44	45	**0.0039 *** Note 2
Precision	4.22	Financial Expertise	4.17	30	0.8457
Precision	4.22	Impartiality	3.94	15	0.0625
Precision	4.22	Problem solving	3.44	58	**0.0244 *** Note 2
Financial expertise	4.17	Impartiality	3.94	25.5	0.3238
Financial expertise	4.17	Problem solving	3.44	45	**0.0039** **Note 2
Impartiality	3.94	Problem solving	3.44	59	0.1294
Impartiality	3.94	Teamskills	3.11	89.5	**0.0203 *** Note 2
Problem solving	3.44	Teamskills	3.11	31	0.3594
Problem solving	3.44	Single mindedness	3.11	67	0.3910
Problem solving	3.44	Sound business understanding	3.11	33	0.2500
Problem solving	3.44	Conservativeness	2.78	89	0.1070
Problem solving	3.44	Interpersonal and communication skills	2.72	41	**0.0273 *** Note 2
Teamskills	3.11	Single mindedness	3.11	36.5	0.9097
Teamskills	3.11	Sound business understanding	3.11	33.5	1.0000

SAC 1	Mean	SAC 2	Mean	Z Score	P Score
Teamskills	3.11	Conservativeness	2.78	48	0.5186
Teamskills	3.11	Interpersonal and communication Skills	2.72	36	0.1289
Teamskills	3.11	Creativity	2.44	49	**0.0273 *** Note 2
Single mindedness	3.11	Sound business understanding.	3.11	55	0.9032
Single mindedness	3.11	Conservativeness	2.78	15	0.0625
Single mindedness	3.11	Interp. and communication Skills	2.72	64.5	0.2163
Single mindedness	3.11	Creativity	2.44	95	**0.0479 *** Note 2
Sound business understanding	3.11	Creativity	2.44	64.4	**0.0522** Note 3

*Significance levels   *0.05   **0.01*

Note 1: MA's are perceived to perform significantly better with regard to ethics than with regard to impartiality and all those lower ranked SACs as indicated at table 4 at section 5.5

Note 2: Same rational as explained at note 1.

Note 3: There is no significant difference between lowest 4 ranked SACs as indicated at table 3 at section 5.4.

APPENDIX O (RQ3)

Breakdown of manager responses regarding their MAs overall role

Group Mgr	Function	REPORTER (Note 1)	GUARDIAN (Note 2)	INTERPRETER (Note 3)	PARTICIPATOR (Note 4)
A	MD	X			
B	Sales				X
C	Supply Chain				X
D	Distribution				X
E	Production	X			
F	Plant			X	
G	Production				X
H	Logistics				X
I	Production		X		
J	MD			X	
K	Production			X	
L	Director		X		
M	Production			X	
N	Sales			X	
O	Sales				X
P	Production		X		
Q	Production		X		
R	Facilities			X	

Note 1: The MA 'reports' routine monthly control information only. The MA does not provide any DM information.

Note 2: The MA engages with managers to provide routine monthly control information as a control measure. The MA does not provide DM information.

Note 3: The MA actively provides and interprets control information for both control and DM purposes. The MA's profile in this case is one of a controller.

Note 4: The MA is actively involved in both control and DM.