MANAGEMENT ACCOUNTING TOOLS PROVIDING SUSTAINABILITY INFORMATION FOR DECISION-MAKING AND ITS INFLUENCE ON FINANCIAL PERFORMANCE

by

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submitted in accordance with the requirements
for the degree of

MASTER OF PHILOSOPHY

in the subject

MANAGEMENT ACCOUNTING

at the

UNIVERSITY OF SOUTH AFRICA

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November 2014

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DECLARATION

I, declare that “Management Accounting tools providing sustainability information for decision-making and its influence on financial performance” is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Khathutshelo Matambele

Date: April 2014

Signed

ACKNOWLEDGEMENTS

I have benefitted a great deal during this research process and would like to thank the following people:

Professor H.M. van der Poll who helped me to complete this study with her comprehensive review, interest and guidance.

My family, for their support, encouragement and cooperation.

Special thanks to the participants without whose information this study would not have been possible.

ABSTRACT

Many organisations today are still not making use of Management Accounting tools to assist in providing sustainability information for decision-making and the influence this can have on the financial performance of an organisation. This may have a negative impact on the financial performance of organisations, the result of the number of errors and miscalculations that can occur, including obsolete cost drivers; miscalculated business decisions, inaccurate information and human errors. Without applying Management Accounting tools, managers of organisations may find it difficult to improve the day-to-day operations and to take decisions to enhance the financial performance of their business.

In this study, information was collected from interviews to determine whether Management Accounting tools could provide sustainability information for decision-making, and how this would influence the financial performance of an organisation. The research was carried out in organisations listed on the JSE.

This study found that Management Accounting tools are important in providing sustainability information for decision-making and in determining how this information influences the financial performance of JSE listed organisations. Furthermore, Management Accounting tools provide strategies that influence decision-making and performance, although decision-making is the responsibility of executives or directors of the organisations.

The study also found that Management Accounting tasks are performed by financial managers who focus solely on financial statements and reporting. Hence future research should focus on the importance of devolving Management Accounting roles to financial accountants or managers to enable the organisation to focus on different reports for different outcomes.

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CHAPTER ONE: BACKGROUND TO THE STUDY

1.1 INTRODUCTION

In 2011, Software provider Oracle conducted a survey that sampled organisations and managers from all over the world. Results indicated that many organisations and managers were affected by the lack of clarity in the meaning of figures because information is provided and presented in confusing ways. The results indicated further that obtaining accurate and reliable information on profit and financial performance is now a challenge that many organisations and managers are facing. As a result, the decision-makers in organisations experience difficulties as the financial performance, success, and sustainability of their organisations are all affected by a lack of transparency in the accounts and profits (CIMA 2011). Consequently, it may be important for the management accountant to provide information in such a way that it guides decision-making towards sustainability.

According to Weygandt, Kimmel, and Kieso (2010:4), Management Accounting can be defined as that part of accounting that provides managers and other internal users with economic and financial information. Therefore, Management Accounting plays an important role in the decisions an organisation makes and, as a result, it may determine the success or failure of the organisation.

In today’s competitive environment many organisations may be fighting for survival and sustainability. Financial performance in many organisations may have been adversely affected by using obsolete cost drivers and information that is inaccurate causing incorrect business decisions and errors. Management Accounting tools enable the establishment of a model for the logical categorisation of cost formation which may support the organisation in the handling of large amounts of data, inaccurate information and flawed decisions (Carenys & Sales 2008:9). Management Accounting tools can provide accurate information and reduce human errors, leading to improved business decision-making and better financial performance by organisations.

Many organisations today operate in a very competitive environment that requires both the manager and all stakeholders to make informed decisions. Garrison, Noreen and Brewer (2007:450) argue that non-financial performance measures need to be integrated with financial performance measures in a well-designed balanced scorecard (BSC) to address the inadequacies of performance measurement. Management Accounting tools can assist organisations to improve decision-making by using both financial and non-financial measures; and the balanced scorecard BSC may improve performance of organisations (Khan, Halabi & Sartorius 2011). Management Accounting tools such as the BSC emphasise the need to provide organisations with suitable information addressing all the applicable areas of performance in a way that is objective and unbiased, to assist management in formulating and achieving strategic policies (Avis 2009:360). In this regard, organisations that make use of the BSC may improve their strategies, leading to improved economic and financial performance.

Walters (1995:135) argues that performance improvement can be achieved when a mixture of techniques, systems and measures are developed and as such, this has to begin at the top level with clear targets, objectives and culture. Organisations should therefore develop performance measurement systems to evaluate performance and to align managerial actions with organisational goals and objectives (Burney & Swanson 2010). Consequently, Management Accounting tools may be able to assist managers and top-level leadership of organisations by providing sustainable information for decision-making through the setting of clear targets and objectives, which may in turn improve financial performance.

Benchmarking is a very useful cornerstone for managing financial performance. Avis (2009:360) defines benchmarking as an approach to financial performance management that starts with the premise that, whatever the processes, performance can best be managed and measured by comparing that process with an appropriate outside entity that is already achieving world-class financial performance. Organisations may thus become more sustainable through improved financial performance achieved by applying benchmarking principles.

Nearly two-thirds of organisations are losing faith in financial accounting based performance measures and are seeking alternative ways to implement and manage their businesses (Caulkin 1997:9). A performance measurement system may incorporate various measures, specifically track factors necessary for the achievement of the mission and vision of the organisation as well as long term success. Schultze and Weiler (2010) argue that the performance measurement system function provides information to managers for making economic decisions and increasing an organisation's returns and financial performance. Performance measures may also convey information about activities within the organisation and should therefore be used together with knowledge management so that creating, capturing, transferring and accessing the information necessary for decision-making is efficient and the information is readily available to drive business strategy (Rowe & Sally 2011). Management Accounting may therefore be viewed as an essential tool for measuring the financial performance of organisations.

Management accountants may produce good performance reports since they monitor performance and present those reports to those managers who are accountable for implementing the various decisions. By comparing planned and actual outcomes, performance reports provide feedback information (Drury 2008:11). Management Accounting tools, together with performance reports, may assist organisations in getting accurate and sustainable information for decision-making and this can improve the financial performance of these organisations.

In the functioning of today's organisation, it may no longer be adequate to measure performance without taking sustainability into consideration. Schaltegger (2008:7) argues that managing sustainability is linked to sustainability accounting and performance measurement. Sustainability can play an important role in creating a competitive advantage and it can benefit organisations through strategic implementation, productivity, and day-to-day operations of the organisations (Zilahy & Kovacs 2008). Thus organisations can benefit from sustainability information and becoming sustainable may create a competitive advantage for an organisation, which could have a positive impact on financial performance.

Many organisations today are facing high levels of uncertainty as a result of changes in technology, market deregulation, and increased competition (Bishnu & David 2002). Through innovations such as activity-based management (ABM) and continuous improvement methodologies, organisations may be able to respond to the changing nature of operations and competition (Yang, Yang & Wu 2006). Botten and Sims (2005:441) argue that competitive advantage may be increased if managers can act and think like owners as this will help them to achieve targets, take more risks and to improve the financial performance of the organisation. The application of Management Accounting tools may assist in providing sustainable information regarding risks and future forecasts, in this way improving the efficiency of processes. For this reason, this research study seeks to investigate the role of Management Accounting tools in providing sustainability information for decision-making, and how this information influences financial performance.

1.2 PROBLEM STATEMENT

Management Accounting is known to be useful in internal planning and control. This may have increased its relevance in improving the financial performance and decision-making processes of organisations (Drury 2008:19).

Many organisations today are still not making use of Management Accounting tools to assist them in providing sustainability information for decision-making. This may impede the financial performance and success of organisations since erroneous decisions, inaccuracies in information, the use of antiquated cost drivers, large amounts of information and human errors may occur (CIMA 2011). Without applying Management Accounting tools, managers of organisations may find it difficult to improve the day-to-day operations and take decisions that will enhance the financial performance of the business.

However, current innovative Management Accounting tools such as ABC, the BSC and benchmarking may provide sustainability information for decision-making which can improve the sustainability, profit, and performance of organisations.

1.3 OBJECTIVES OF THE STUDY

The main objective of this study is to examine whether Management Accounting tools can provide sustainability information for decision-making and the influence of this information on the financial performance of an organisation.

For the purpose of this study, the practices to be assessed theoretically include ABM, SWOT, value chain, and PEST analysis as well as the position audit. Those practices to be assessed theoretically and empirically will include ABC, performance measurement, the balanced scorecard and benchmarking.

The aim of the study is to:

Assess to what extent Management Accounting tools provide sustainability information for decision-making and its influence on the financial performance of organisations. The objectives of this study are to:

- assess the role of Management Accounting tools such as the BSC, benchmarking and ABC to provide sustainability information which influences financial performance.
- ascertain whether the sustainability information generated by tools such as the BSC, benchmarking and ABC improves the financial performance of organisations.
- establish the extent to which sustainability information influences decision-making in the organisation.

This research is expected to meet these objectives and ultimately to state to what extent Management Accounting tools are applied by organisations.

1.4 THESIS STATEMENT

Many organisations are still not using Management Accounting tools to assist in the provision of sustainability information for decision-making. Management accounting information has been optional for many organisations in terms of driving their strategy, their financial performance, decision-making, and the day-to-day operations of the business. Nevertheless, Management Accounting tools can provide information on sustainability to managers and people within and outside the organisation to improve the financial performance and sustainability of organisations.

1.5 DELINEATIONS AND LIMITATIONS

The delineations and limitations of this study are addressed in this section.

This study focuses on examining the role of Management Accounting tools in providing sustainability information for decision-making and determining the influence of this information on the financial performance of an organisation

The limitation of this study is that:

- The study will be conducted only in South African JSE listed organisations; the findings cannot therefore be generalised to all types of organisations all over the world.

1.6 DEFINITIONS OF TERMS AND CONCEPTS

For the purpose of this study the following terms and concepts have been used:

Activity-based costing (ABC): a methodology that measures the cost and performance of activities, resources and cost objects and recognises the causal relationships of cost drivers to activities (Baker 1998).

Balanced Scorecard: a business performance evaluation model that balances measures of financial performance, learning, innovation and internal operations (Hilton & Platt 2011).

Benchmarking: a process through which products, functions and activities of an organisation are compared to other organisations, identifying the areas that need improvement and implementing a programme for consistent improvement (Langfield-Smith, Thorne & Hilton 2012).

Competitive advantage: the advantage an organisation possesses over its competitors in relation to an aspect that is considered relevant by clients (Keuning, Bossink & Tjemkes 2010).

Management Accounting: provides information to stakeholders within the organisation to assist in the making of decisions and to make existing operations more effective and efficient (Drury 2008).

Performance: is the measure of how consistently and well the product functions (Hansen & Mowen 2000).

Performance measure: a performance measure can be monetary or nonmonetary and the measures assess progress towards the organisational mission, goals and objectives (Raiborn, Kinney & Prather-Kinsey 2006).

Sustainability: defined as managing business affairs in a consistent way with future ecological and societal solutions to business problems in mind (Keuning *et al*. 2010).

Sustainability information: for the purpose of this study sustainability information means information that assists organisations in making economically viable, social and environmentally responsible decisions towards long-term organisational performance (IFAC 2011).

1.7 ASSUMPTIONS

It is assumed that many organisations rely heavily on financial statements rather than Management Accounting information for decision-making. It is also assumed that organisations that apply tools of Management Accounting always achieve exceptional results, both on the bottom line and in the continual improvement in all areas of the organisation.

- The researcher assumes that sustainability information influences decision-making in the organisation.
- The researcher also assumes that applying certain Management Accounting tools will improve financial performance.
- The researcher assumes that an organisation that applies Management Accounting tools makes better decisions for the day-to-day running of the business.

1.8 RESEARCH METHODOLOGY

This study comprises the following:

1.8.1 Literature review

The literature review for this study involves all information that is publicly available such as library books, subject websites, scholarly journals and so on, which will guide and provide more information for this study. For the purpose of this study, the literature review will be conducted using information collected from:

- UNISA library
- Emerald Business Management and Economics eBook series collection
- Google Books
- CIMA websites

1.8.2 Interviews

Primary data will be collected using interviews with the managers responsible for the Management Accounting department/section in the selected sample of JSE listed organisations in South Africa. The interview questions will be clear and concise so as to invite participants to provide relevant information. The goal is to ask all the questions necessary to collect the desired information without making the interview so lengthy that it becomes burdensome to the interviewee.

A survey in the form of interviews constitutes the empirical study that targets the organisations and it will assist in eliciting more information for this study. A pilot study will be used to add reliability and validity to the study. Heppner and Heppner (2004:110) define a population as organisations, students, employees, or objects of the study. The target population of this study is 400 South African organisations listed on the Johannesburg Stock Exchange (JSE 2013). Organisations will be selected by numbering each organisation and drawing 25 numbers, from which the first 15 will be approached first.

Simple random sampling will be used to accurately represent the population and to gain opinions on and understanding of attitudes towards Management Accounting tools and principles.

This study is qualitative in nature and information will be collected using interviews. The study will outline both descriptive and explanatory research and the evidence may also have a bearing on alternative rival explanations.

1.9 SIGNIFICANCE OF THE STUDY

The goal of the study is to examine the role of Management Accounting tools in the provision of sustainability information for decision-making with the view to making a contribution to the improvement of the financial performance of all organisations.

The study may benefit organisations and any enterprise that implements Management Accounting tools in their business as follows:

- The owners, managers, and shareholders of organisations may realise the role of Management Accounting tools in the business.
- The researcher is of the opinion that the findings will indicate the importance of Management Accounting tools in driving sustainability information and therefore indirectly the financial performance of an organisation.
- The managers and directors will gather ideas on how their organisations can remain sustainable over time.
- The researcher is of the opinion that the findings will motivate and make directors, shareholders and managers aware of the role of Management Accounting tools in their organisations in providing them with accurate measures of sustainability as well as financial performance, accessing reliable information for decision-making and controlling and planning an organisation’s operations.

1.10 CHAPTER OVERVIEWS

This dissertation is made up of seven chapters and the structure and content of the chapters are outlined as follows:

Chapter 2 is devoted to reviewing the literature on the background to sustainability information, decision-making and relevant stakeholders, and financial performance.

Chapter 3 covers a literature review on more details of Management Accounting tools, providing information that is relevant to decision-making and improving sustainability and financial performance of an organisation. The review will examine theory from various Management Accounting books, articles, and relevant websites regarding:

- Management Accounting and Management Accounting information
- Activity-based costing (ABC)
- Performance measurement
- Balanced scorecard (BSC) and
- Benchmarking.

Chapter 4 is committed to specific Management Accounting tools such as ABM, SWOT, value chain and PEST analysis and the position audit as well as research and development that informs strategy on continual improvement of decision-making and financial performance.

Chapter 5 covers the methodology employed in this study. This includes, amongst others, a discussion of the research methods, target population, data collection, and interviews.

Chapter 6 covers the data analysis and findings, as well as interpretations of the findings. Since the research is based on a qualitative methodology, a qualitative analysis of the collected data is employed.

Chapter 7 is the final chapter where research findings are concluded and recommendations and suggestions for future research are outlined.

1.11 SUMMARY

This chapter has provided the background to the study. The problem statement, objectives of the study, thesis statement as well as delineations and limitations were discussed. The chapter provides definitions of terms and concepts, discusses assumptions, the research methodology as well as the significance of the study and the chapter overviews. In Chapter 2, the background to sustainability, decision-making and the relevant stakeholders and financial performance is discussed.

CHAPTER TWO: BACKGROUND TO SUSTAINABILITY, DECISION-MAKING AND RELEVANT STAKEHOLDERS AND FINANCIAL PERFORMANCE

2.1 INTRODUCTION

Hope and Player (2012:102) argue that best run organisations and smart investors see sustainability for what it is: a strategic driver that will separate the winners from the losers in the coming decades as waste reduction and new business opportunities are everywhere. Therefore organisations that drive their sustainability may stand a greater advantage when improving their business objectives and performance in the future.

In our day-to-day life we are accustomed to making decisions; however, when resources are limited, the implications of a particular decision may be extremely far-reaching. During the decision-making process, managers should gather information that allows them to see the whole picture (Black & Al-Kilani 2013:382). Black and Al-Kilani (2013:382) observe that:

- When making one-off decisions, it is important to gather information which is specifically related to that issue.
- Information on relevant costs, as well as opportunity costs should be obtained.
- Forward-looking data is of great importance; however, data availability may sometimes be an issue.
- The effect of the decision on the net cash flow should be considered.

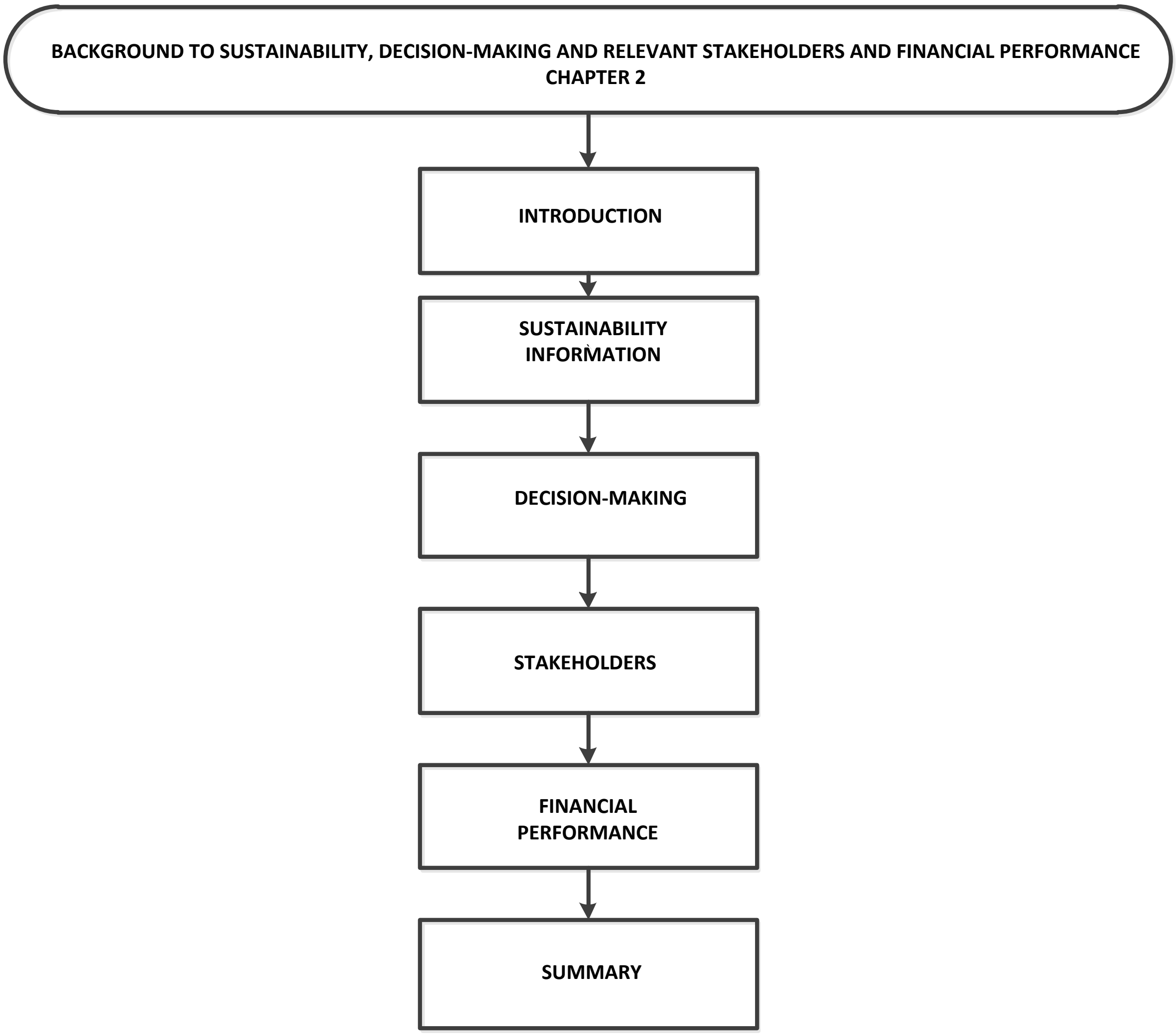
Based on these points, Management Accounting may be the cornerstone for making successful and profitable decisions for businesses, which may in turn have a visible impact on financial performance and stakeholders.

Chapter 2 presents literature on the background of sustainability, decision-making and relevant stakeholders, and financial performance. This chapter discusses sustainability information in Section 2.2. Section 2.3 outlines decision-making and Section 2.4 addresses stakeholders, while financial performance is discussed in Section 2.5. The chapter concludes with Section 2.6.

2.1.1 Layout of Chapter 2

Figure 2.1 illustrates the layout of Chapter 2.

Figure 2.1: Visual layout of Chapter 2

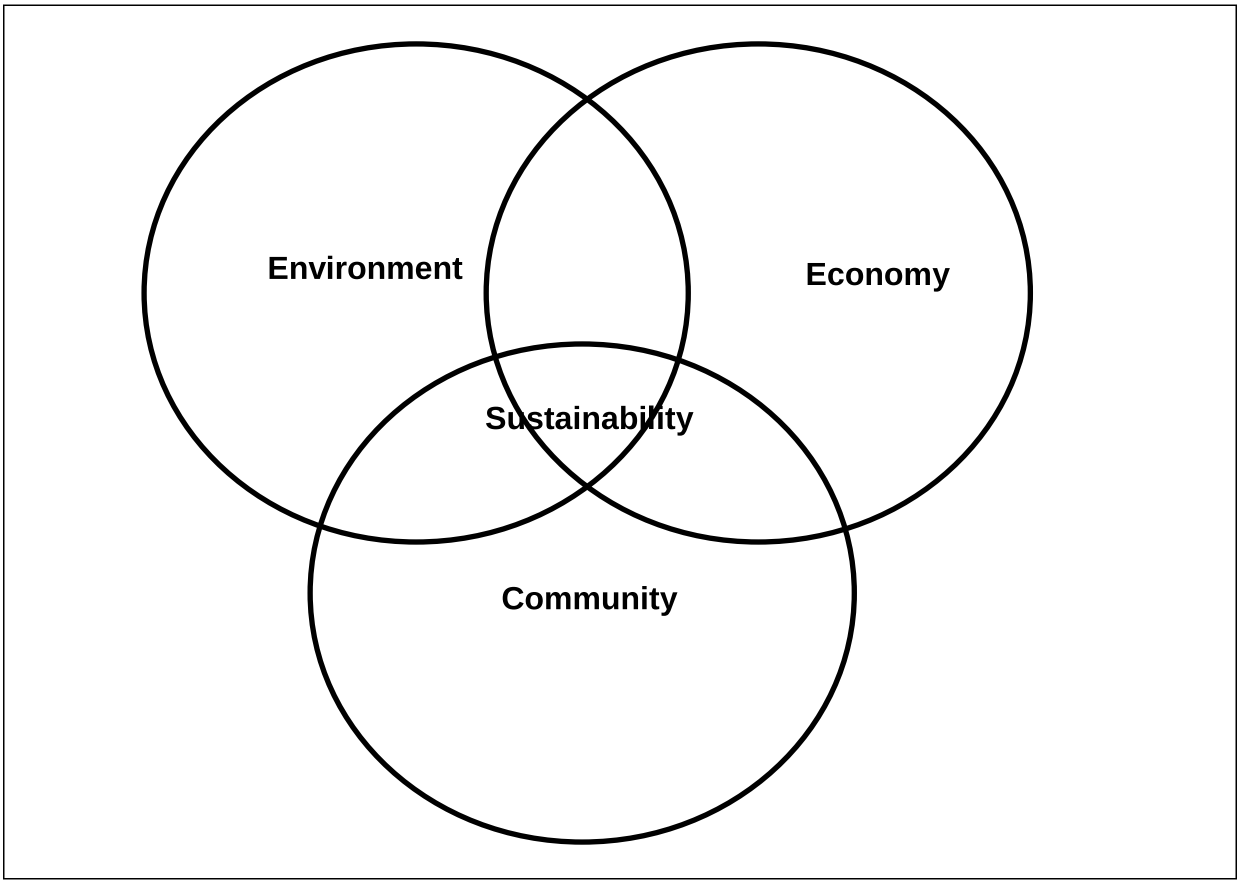


2.2 SUSTAINABILITY INFORMATION

Grober (2012:8) argues that sustainability relates to the basic human need to maintain and nurture the conditions on which life depends. He adds that there cannot be development without sustainability, which is why modern organisations, corporate managers and politicians perceive sustainability as the antithesis of development, a threat to progress and well-being. This author elaborates: sustainability has never been more topical than it is today and this is clear in the way governments, organisations and companies respond to financial crises. For this reason, sustainability information can be viewed in terms of a biological perspective adopted to assist organisations in assessing the impact of the economy and long-term survival which may directly influence financial performance, not only from the corporate perspective of creating stakeholder value (Morse 2010:133).

"Sustainability is about people and time; the past, present and the future" (Morse 2010:1). He argues that sustainability educates people about their existence and their response to stress, and about the moral duty they have in the present to ensure that the best quality of life is provided to those living today. What has been done in the past and present should not endanger the quality of life of those living in the future. Although this is true for the science of biology, organisations sustainability may depend on a similar principle to the one illustrated in Figure 2.2.

Figure 2.2: Circles of sustainability



Source: *Morse (2010)*

Morse (2010) argues that the three interlocking circles of sustainability imply equal consideration of each. He adds that organisations need to consider the environment, the community and the economy equally since where they overlap sustainability exists. He stipulates that we cannot achieve sustainability only by protecting the environment and overlooking people. He argues that politicians should view sustainability as a branch of economics more than anything else. This may be essential in generating useful information that drives the financial performance of an organisation.

CIMA (2013:81) states that organisations should not only take financial factors into consideration when making decisions; they should also take into account the social and environmental consequences of their actions. Table 2.1 indicates how sustainability impacts operations management by way of balancing economic, environmental, and social needs, which has a direct impact on the financial performance of an organisation.

Table 2.1: Balancing economic, environmental and social needs

Area	Need
Process design	The process should be designed to minimise waste, reduce energy use as well as carbon emissions.
Product design	The product should consider factors such as: • the use of recycled inputs • the use of sustainable inputs, and • the ability to recycle products and minimise wastage.
Supply chain management	• Products should be purchased only from sustainable products and ethical sources. • One of the key criteria when choosing between suppliers should be their adoption of sustainable development policies. • The distance between the supplier and the company should be minimised.
Quality management	Higher quality should help to improve efficiency and reduce waste.

Source: *CIMA (2013:190)*

Table 2.1 indicates that sustainability implies that the needs of the present are met without compromising the needs of future generations (CIMA 2013:190). Hence, information generated from sustainability by an organisation may directly influence the organisation's decision-making and financial performance.

Although a sustainability study may provide reliable information for use in the decision-making process as well as in strategy formulation, Burns (2011:293) argues that growing pressures are leading organisations to give careful consideration to sustainable development and how it might contribute to the sustainability of a competitive advantage and continuous growth in the organisation. He elaborates on the four groups that exert pressure, as indicated in Table 2.2.

Table 2.2: Four groups that generate pressure

Pressure group	Definition
Environmentalists	Those who see organisations rapidly consuming valuable, limited resources of the planet while at the same time contributing to global warming, which may cause destruction of the planet.
Social reformers	Those who see organisations behaving in a way that exploits cheap labour in developing countries.
Social activists	Those who see organisations as having a broader social role in the community, beyond the boundaries of the working environment.
Ethical activists	Those who see organisations behaving in ways that are ethically unacceptable, and trying to mislead stakeholders.

Source: Burns (2011:293)

However, these groups may also apply pressure on organisations that deviate from what they believe. Strong corporate social responsibility can be combined with the above issues in order to enhance customer loyalty, increase future purchases, reduce operating costs and improve new product development, as well as to access new markets and make productivity gains (Burns 2011:295). Burns (2011) believes that applying a strong corporate social responsibility policy seems to be linked to the financial performance of an organisation. Therefore, organisations may observe that their corporate social responsibility policy influences their financial performance.

Constable (2012:1) argues that the achievement of the long-term strategic objectives of an organisation is dependent on an informed commitment to sustainable development. Recognition motivates commitment to understanding and responding to stakeholders' interests and expectations; partnering with stakeholders can lead to solutions to pressing sustainability challenges. Hence, sustainability may need to be the focus of many organisations', both listed and unlisted on the stock exchange, so as to ensure long-term survival of the organisation.

Langfield-Smith *et al*. (2012:788) confirmed that sustainability is a concept that takes into account the notion that future generations meet their needs without the current generations needs hampering this ability. They believe that sustainability focuses on achieving three interrelated outcomes:

- **Sustainable economy:** the cornerstone of positive economic results.
- **Sustainable environment:** the backbone of protecting the environment.
- **Sustainable society:** the bedrock of protecting current and future generations.

Nevertheless, sustainability may be a broader concept as it may take the interests of both organisations and stakeholders into account by preventing environmental exploitation as well as encouraging corporate social responsibility. Many organisations may refer to sustainability as the achievement of greater profits and as a source of improving shareholder value. Sustainability may thus provide quality information to support organisations in the decision-making process, which in turn may affect all stakeholders positively. The following section presents an outline of decision-making.

2.3 DECISION-MAKING

Decision-making can be defined as the process whereby the decision-maker identifies and chooses alternatives based on values and preferences (Harris 2012). Management Accounting provides an organisation with information with which informed strategic decisions and operations can be assisted (Kidane 2012). From senior decision-makers, be they national or international, to the individual, the need for sustainability information arises at all levels (UNEP 2014). Therefore, the information that Management Accounting provides may be applied to make good and reliable decisions for a sustainable future.

Talley (2011:1) asserts that shorter timeframes with generally contracting organisational cycles that erode the quality of data and the rate of change that invalidates the data underlying a decision before its implementation seem to have as a consequence the decline in the quality of managerial decision-making. It can be argued that there is a need for Management Accounting to assist organisations by providing relevant sustainability information for the decision-making process.

Shanteau (2001:1) argues that understanding and improving decision-making are major concerns of management. He believes that dividing a challenge into smaller parts, working independently on these parts, and combining them afterwards in the final decision-making process, improves decision-making. Decision-making forms an essential part of any organisation since the majority of operations revolve around decisions which are taken by management and other key stakeholders. A good information system is necessary if adequate decisions are to be made, since decisions are based on available information (Nowduri 2010:2). Information generated through Management Accounting can thus be regarded as a valuable source of reliable information for decision-making.

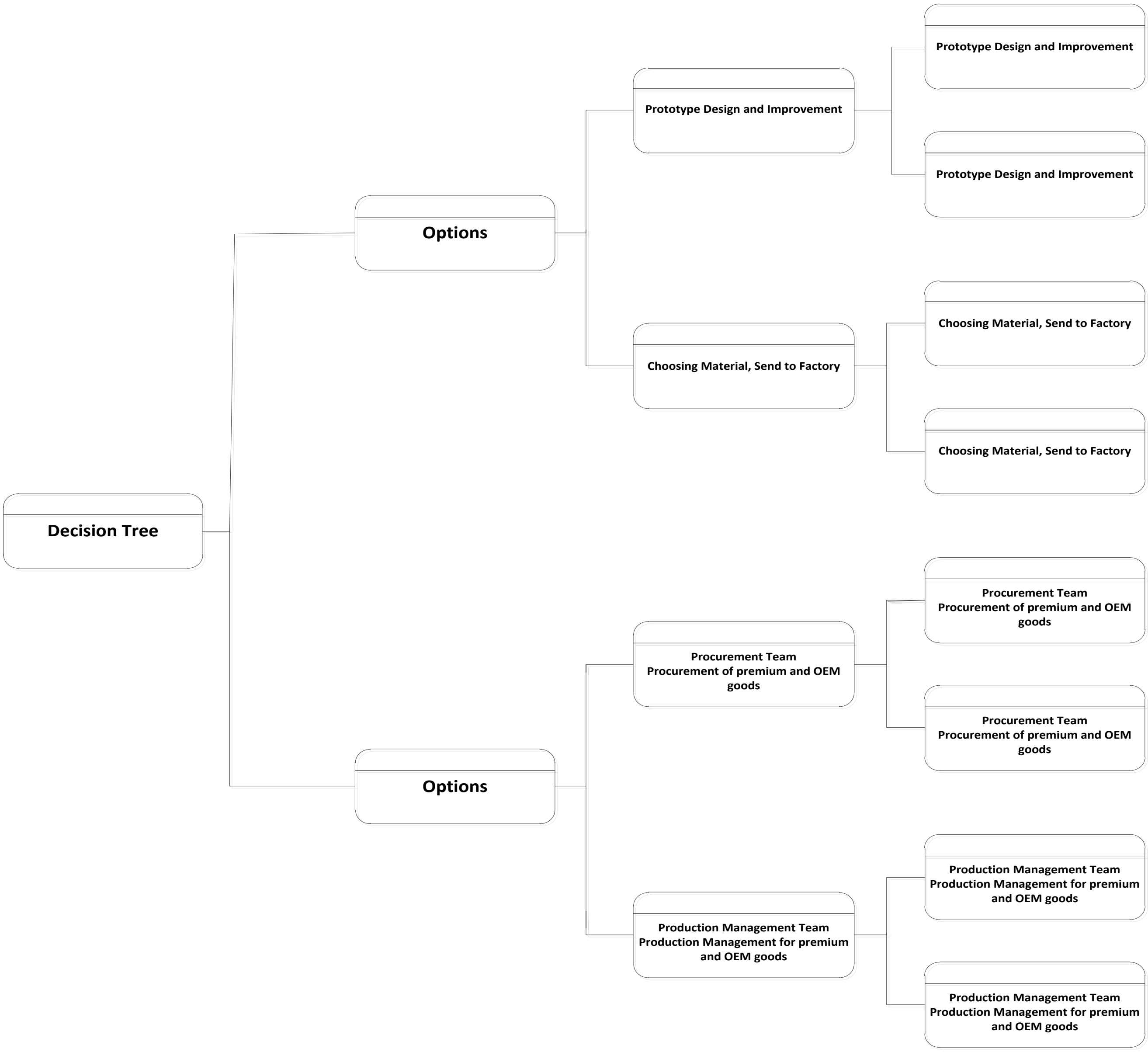
When a decision-maker is in harmony with the decision and the decision is not measured as correct, based on the outcome, the correct decision will be made (Taylor & Haneberg 2011:25). These authors provide several questions that should be considered after decision-making:

- Are we congruent with the decision?
- Did we involve the right people?
- Did we collect the right or enough information?
- Knowing what we know now, would we do things differently? If yes, how could we have discovered this information earlier?
- Did we communicate the decision fully and well?
- Did discussion leading up to the decision demonstrate good partnership and co-ownership?
- How do we feel about the outcome?

These questions can be applied as an evaluation to measure the effectiveness of the decision-making process. Stock (2013:5) asserts that economists assume that decision-makers compare the costs and benefits of alternative choices and then choose options that make them as well off as they can be. She argues that economists make a basic assumption about the way people make choices: decision-makers weigh the costs and benefits associated with any choice in order to maximise the value of some objective. This may therefore improve the financial performance of an organisation as costs and benefits will be effectively weighed before a decision is taken.

Based on Stock's (2013) above, a decision tree as indicated in Figure 2.2 was generated as an example of how a decision that can influence financial performance effectively can be made.

Figure 2.3: An example of a decision-making tree



Source: *Adapted from Edrawsoft (2014)*

Figure 2.3 illustrates the hierarchy of the decision-making process in an organisation. Deshpande (2011:1) confirms that the use of a decision tree has the following benefits:

- Variable screening is implicitly performed by decision trees.
- Relatively little effort is required from data preparation users by decision trees.
- Non-linear relationships between parameters do not affect decision tree performance.

- The greatest advantage for analytics of using decision trees is that they are easy to interpret and explain to executives.

With regard to Figure 2.3, it can be argued that a decision tree is useful in generating sustainable information for decisions that may impact positively on the financial statements of an organisation.

Proctor (2006:101) believes that managers of an organisation will have to make decisions and Management Accounting is a source of help on these occasions. He states that some decisions have an immediate, short-term effect while others impact the organisation for many years to come. Although there are many options to consider when making a decision, Management Accounting can definitely play a major role in assisting managers of an organisation in making decisions sustainably and profitably.

McWatters, Zimmerman, and Morse (2008:202) assert that managers ought to separate planning and control so that they can make decisions that will not harm the organisation. By planning and controlling the decision-making process, an organisation may find it easier to reach its set goals and objectives. Hilton and Platt (2011:43) argue that most large organisations are decentralised and their managers make decisions for sub-units, making the decision-making process more effective and reliable and leading to the achievement of the goals set by top management. Hence organisations may have an efficient decision-making process rather than only one central point of decision-making, which means that decisions relating to sub-units may take a long time.

Successful people view decision-making as a requirement for performing at a higher level; fast and confident decision-making is essential to achieve a high level outcome. (Hogan, Lakhani, & Marti 2008:51). Hogan *et al*. (2008) argue that making good decisions will propel the organisation to success more quickly than making poor decisions; the only way to improve at making decisions is to make more decisions. Hogan *et al*. (2008:51) suggest 20 guidelines to help individuals to make successful decisions, as indicated in Table 2.3.

Table 2.3: 20 Guidelines that assist in making successful decisions

Guideline	Suggestions
Decisions involve the making of a choice between alternatives.	• There are good and bad decisions. • The outcome is not the issue. • A good decision is what happens now, not the outcome.
Never base your decision on what feels right.	• Unless you are an expert in the field in which you are making the decision
Review all the facts thoroughly before you make a decision.	• Once you have reviewed them, allow yourself time to think about them before drawing a conclusion and determining your decision.
Write down all advantages and disadvantages of the decision you make.	• This can help to clarify your decision or to see any problems the decision might create.
Set a timeline and make the decision.	• Do not procrastinate.
Get input from others on the situation if they will be affected by your decision.	• It does not mean you have to do what they suggest, but you still need to let people be heard.
When considering a decision, ask yourself what could go wrong.	• Does this as you follow through with each choice.
Visualise your decision in your head and follow it through in your mind while you imagine that a large group of people you know are watching you.	• This will help you to visualise all outcomes of the decision before actually following through with it.

Guideline	Suggestions
Put faith in your ability to make a successful decision and your ability to follow it through.	
When you make your decision, let go of all the what-ifs.	• Do not give any more thought or energy to a decision once it has been made. • The pitfalls have already been foreseen and you know how to respond when they happen. • Move on.
Base your decision on the probability of outcome and the value of the outcomes.	• A decision based on feelings, instinct in unfamiliar territory, or lack of information about all the alternatives is a poor decision.
If you are outstanding in a field, make your decisions quickly.	• Make sure you collect all the facts that you need to make a good decision when you are not an expert in a field.
Make notes when making a decision, write down all solutions, and include all the relevant information.	• Sometimes the right answer becomes more obvious when you see it written down in black and white.
Determine and write down the relative importance of various results.	• For example, is it more important to have a larger salary or to have a more flexible schedule?
Make one decision at a time.	• Do not allow decisions to build up and force yourself to make them all at once.
Look at the objectives, the alternatives, and the risks of any alternatives to the decision.	
Fully brainstorm potential consequences of each choice.	• What could happen? What else? How will you handle those problems?

Guideline	Suggestions
Discuss important decisions with a trusted advisor.	• It might be helpful to debate important decisions. • In defending your initial position, you may observe some weaknesses. • Remember that being right or wrong is not important when debating. Focus on making the best decision.
Make the decision to do it when you know the right thing to do according to your value system.	• Integrity matters.
Make a decision and act on it.	• Once you have committed yourself to your decision, follow it end-out. • Recognise that you cannot be 100% certain that it is the right decision. However, follow it and take action.

Source: *Hogan, Lakhani and Marti (2008:51)*

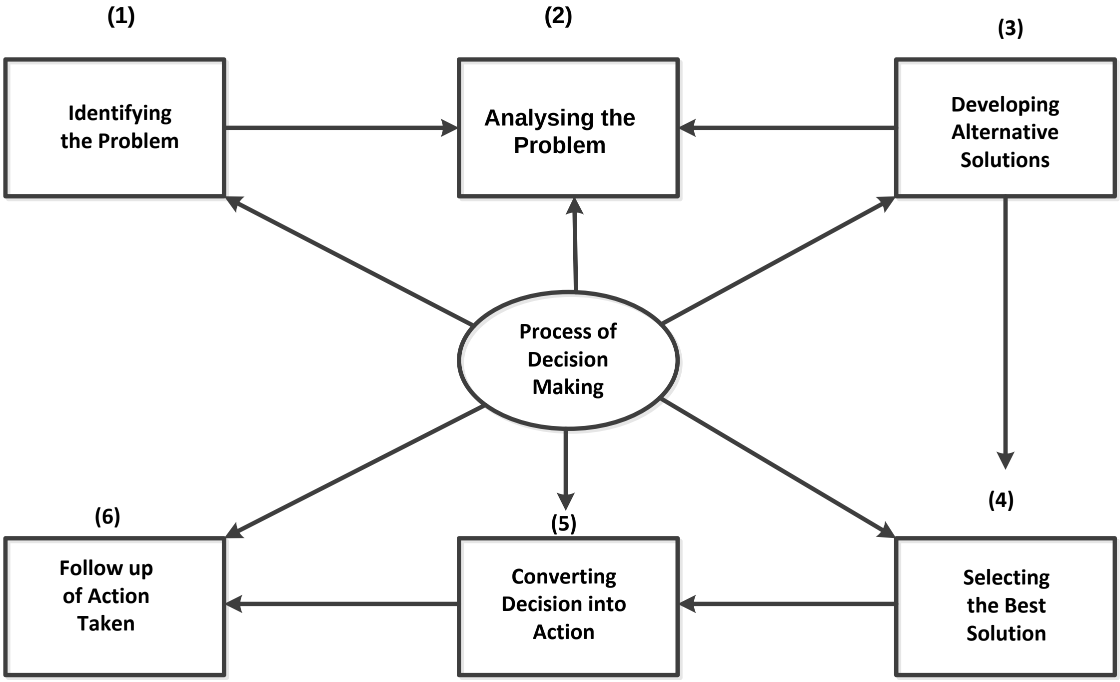
Although Table 2.3 focuses more on the individual than on the organisation, it could be very useful for organisations to apply the stated guidelines to assist them in making valuable and informed decisions that will influence their financial performance. Hogan *et al.* (2008:51) argue that decisions do not need to be liked; one must simply become good at making them and gathering an optimal amount of information. Decide, take action, and do not look back. These steps may therefore provide sustainability information to assist an organisation in improving its decision-making and financial performance.

CIMA (2013:115) states that decision-making has a hierarchy of systems that can assist in the decision-making process:

- **Transactional processing system (TPS):** These systems are there to carry out essential, routine processing of day-to-day transactional data and are sometimes referred to as data processing systems. Examples include the payroll or inventory control systems.
- **Management information systems (MIS):** Through these systems middle managers are provided with information to monitor and control the organisation's activities and to report this to senior managers. Examples include budgeting and control systems.
- **Decision support systems (DSS):** These systems provide middle managers with information to support once-off decisions. These systems employ complex mathematical models to allow managers to carry out complex 'What-if' analyses.
- **Expert systems:** Problem-solving techniques of human experts are simulated through this system, by applying human expertise and knowledge to a range of specific problems about a particular area of expertise.
- **Executive information systems (EIS):** Information can be presented in a user friendly format to provide senior level managers with strategic level information to assist them in making strategic decisions. For example, graphs and pie charts.

Sustainability information for the decision-making process may best be managed and extracted using the above systems. Furthermore, Akrani (2014:2) indicates that modern management involves decision-making as an essential and primary function. Decision-making involves a number of logical steps and these are treated as a rational or scientific decision-making process that is lengthy and time consuming. Rational/scientific/result-oriented decisions are based on a lengthy process. The decision-making process prescribes some rules and guidelines on how a decision should be taken. This is depicted in Figure 2.4.

Figure 2.4: Decision-making process steps



Decision-making Process

***Source**: Adapted from Akrani (2014:2)*

I could be argued that the steps explained in Figure 2.3 are important for organisations and require proper consideration in order to obtain applicable results for any decision-making process. Umass (2014) confirms that more deliberate, thoughtful decisions are made by organising relevant information and defining alternatives through the use of a step-by-step process.

Sustainable Life Media (2014) states that there are two basic types of decisions: routine and complex, summarised in Table 2.4.

Table 2.4: Routine decisions vs. Complex decisions

Routine decisions	Complex decisions
Decisions that are made every day with little thought. For example: whether to recycle a coffee cup or turn out a light or print on both sides of the paper.	Complex decisions tend to be infrequent, require synthesising information, and can have high risks. For instance: deciding where to site a new facility or whether or how to invest in climate adaptation initiatives.
Passive decisions supporting techniques for improving the quality of routine decisions include: • Making public commitments. • Making sustainable behaviour the default choice. • Providing verbal, written, or digital feedback on behaviour outcomes. • Setting an expected level of performance or compliance for sustainable behaviour.	The right approach is to employ decision support techniques to break decisions down into manageable steps and to try to *overcome* built-in biases and errors when facing a complex decision. Active decision-support techniques include: o **Structured decision-making:** This process is typically guided by a facilitator. It involves the diagnosis of the problem together with stakeholder input; breaking the decision into manageable steps; basing the decision on the alternative that performs best against the decision criteria. o **Multi-criteria decision analysis:** An overall score for each alternative is calculated after decision criteria are set, weighted, and entered into a computer program.

Source: *Sustainable Life Media (2014)*

In summary, Table 2.4 indicates that decision-support techniques are useful when employed to define sustainability strategy and to set sustainability goals, whereas passive decision-support techniques are useful when employed for guiding individual behaviour in support of these goals. Organisations that apply the sustainability information provided above may reap the benefits of making decisions that yield positive outcomes for their financial performance.

Network for Business Sustainability (2012) argues that organisations can manage or leverage specific biases that influence sustainability decisions more often than other decisions, if they understand biases that emerge regularly. Examples of these are preference for keeping the status quo or the tendency to choose wants over needs. Table 2.5 indicates examples of biases and errors that come into play when making sustainability decisions.

Table 2.5: Examples of biases and errors

Decision biases and errors	What happens?	For example
Loss avoidance	Gains and losses are judged relative to the present state.	Sustainability decisions may require us to dispense with something even though something else is given in return.
Short cuts	Information that is familiar, recent, or easy to interpret is the focus – even if it is irrelevant.	Sustainability decisions often use hard-to-evaluate criteria, e.g. recreational benefits or human health effects, which are overruled by simple financial metrics.
Intuition	Gut-feeling and intuition are relied upon when distracted or faced with new situations.	Sustainability decisions are often novel, therefore individuals may find it difficult to process all relevant factors and may rely on intuition instead.
Wants vs Needs	"Wants" tend to overrule "needs" – especially when we are tired or distracted.	Sustainability decisions may yield longer-term benefits, therefore becoming a "need" rather than a "want".

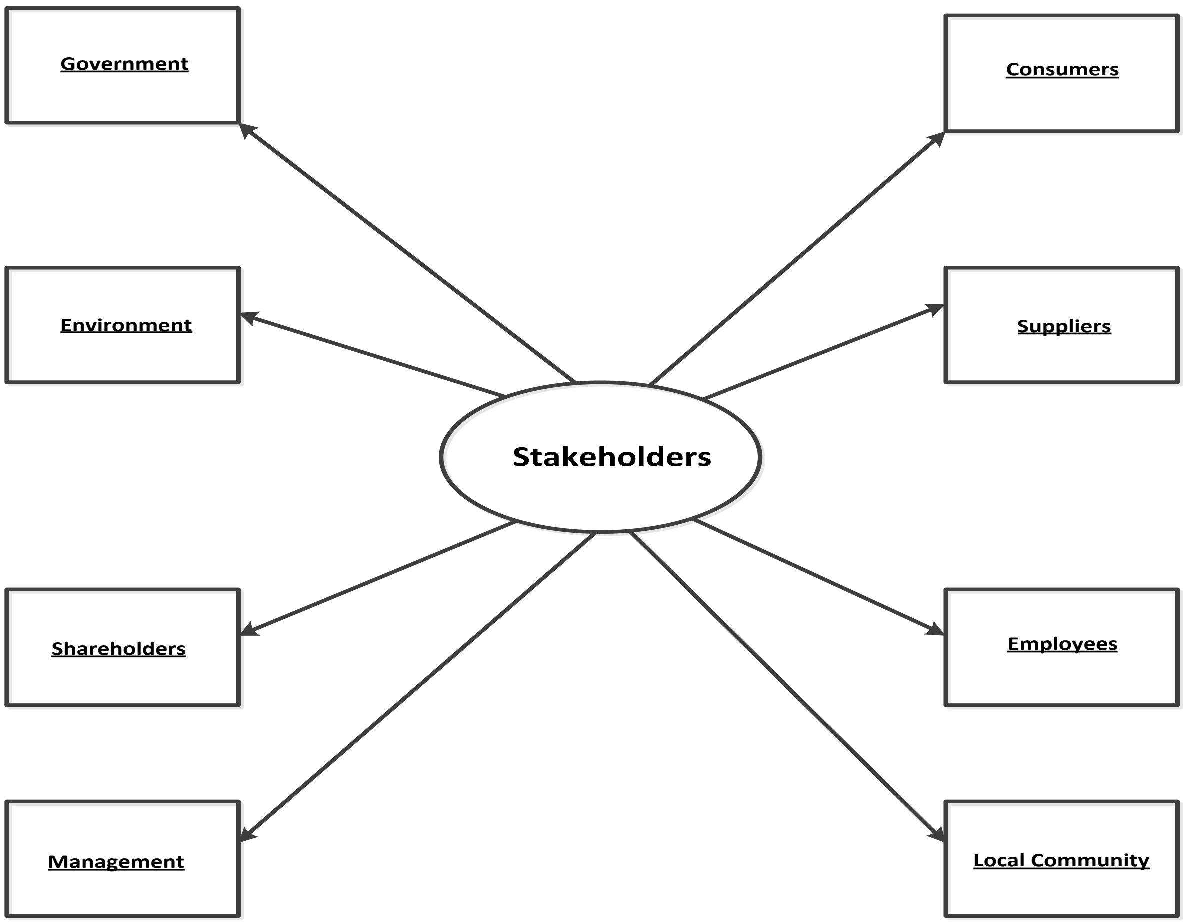
Source: *Network for Business Sustainability (2012)*

Nevertheless, sustainability decisions may play an important role in guiding an organisation when making decisions that influence financial performance. Based on the discussions and tables above, it is possible that it would benefit decision-makers to consider all options provided above when making decisions, which in turn will provide the sustainability information for the right decisions at the right time. In the next section, stakeholders are discussed.

2.4 STAKEHOLDERS

CIMA (2009:31) defines stakeholders as those individuals and organisations with an interest in the strategy of the organisation, as indicated in Figure 2.5.

Figure 2.5: Stakeholders



Source: *Adapted from communication plans (2014)*

The purpose of Figure 2.5 is to indicate the various stakeholders that exist within an organisation. Triple A Learning (2014) views stakeholders as internal or external to the company; they are either part of the business itself or are influenced by it. It further explains that internal stakeholders have different objectives and levels of risks, as indicated in Table 2.6.

Table 2.6: Objectives of stakeholders

Stakeholder	Objective	Risk
Shareholders (organisation or people)	Dividend income	The risk is small if the investment is part of the portfolio of shares owned.
Directors – executive	Income Power	Higher risk; however, an individual may have many directorships, and savings.
Directors – non-executive	Objectives depend on why they are there. Generates some income.	Risks may be small, even smaller than those of executive directors.
Managers	Income	Higher risk than directors although the risk is lower than that of workers.
Workers	Continuation of work. Earn a salary or wage to pay for the cost of living.	High risk. No work = no income. Work may be scarce.

Source: *Triple A Learning (2014:54)*

Table 2.6 explains the objectives and risks of the particular stakeholder. CIMA (2013:75) views external stakeholders as a group that has diverse objectives and a varying ability to ensure that the organisation meets their objectives. The external stakeholders are listed in Table 2.7.

Table 2.7: External stakeholders

Stakeholder	Needs/expectation
Community at large	Will not want their lives to be detrimentally affected by business decisions
Environmental pressure groups	The organisation should not harm the external environment
Government	Provision of taxes and jobs and compliance with legislation
Trade unions	To take an active part in the decision-making process

Source: *CIMA (2013:75)*

Tables 2.6 and 2.7 indicate that companies have many stakeholders inside as well as outside the company with an interest in its operations, and its success and sustainability. Tables 2.6 and 2.7 also show the objectives of each stakeholder and the associated risks. This could provide information on the purpose of this study as a result of organisational legitimacy and also stakeholder power on strategies which influence financial performance.

Correia, Flynn, Uliana and Wormald (2003:16–10) argue that when organisations tend to satisfy the needs of their shareholders with regard to the balance between cash income and capital growth, shareholders will be attracted to these organisations. Organisations should take advantage of any available favourable opportunities and management should take those actions that create wealth for the shareholder and grow the organisation accordingly. Correia, *et al*. (2003:16-10) list five factors that shareholders should take into account:

- When buying and selling of shares transaction costs are incurred.
- Shareholders can be classified as stake dealers and be liable for tax on the gains as a trading profit rather than as capital gains, and will pay a higher rate of tax when disposing of shares.
- The shareholder may be precluded from disposing of the investment in the company.
- Loss of control.
- Floatation costs are incurred when new shares are issued.
- Foreign investors in South Africa may be particularly keen to have earnings distributed to them by way of dividends.

The above points suggest that organisations can attract shareholders who identify with their vision and mission. Financial performance is discussed in the next section.

2.5 FINANCIAL PERFORMANCE

Raiborn, and Kinney (2013:12) view financial performance as those concerns of shareholders and other stakeholders about profitability and organisational growth. Financial performance may be expressed as a subjective measure based on how well an organisation utilises its assets from its primary business and generates revenues. Financial performance may also measure an organisation’s overall financial health over a certain period, and can be employed to compare similar organisations across the same industry. Taylor and Haneberg (2011:20) argue that profit, market share, economic value added, and earnings before interest, tax, depreciation and amortisation may be the focus of financial performance. For the purpose of this study, therefore, financial performance can be regarded as an integral part of an organisation's sustainability and existence.

Kaplan Financial Knowledge Bank (2012) argues that all organisations include financial performance measures as part of their performance management. They indicate the objectives of profit-seeking organisations and the traditional financial performance measures, as described in Table 2.8.

Table 2.8: Objectives of profit-seeking organisations and relevant traditional financial performance measures

Objectives of profit-seeking organisations	Relevant traditional financial performance measures
• Maximising shareholder wealth • Survival and growth • The relationship between profits and shareholder value • Shareholder return and profits	• **Profitability measures** ➢ Return on capital employed (ROCE) ➢ Gross profit margin ➢ Net profit margin ➢ Asset turnover ➢ EBITDA • **Liquidity measures** ➢ Current ratio ➢ Quick ratio (acid test) ➢ Inventory holding period ➢ Receivables (debtor) collection period ➢ Payables (creditor) period • **Gearing ratios** ➢ Financial gearing ➢ Interest cover • **Other investor ratios** ➢ Earnings Per Share (EPS) ➢ Dividend cover ➢ Dividend yield ➢ Earnings yield • **Shareholder value**

Source**:** *Kaplan Financial Knowledge Bank (2012)*

Although Table 2.8 indicates a number of financial measures that could be explained in detail, for the purpose of this study the relevance of financial performance as well as how it impacts on the organisation's sustainability is stipulated. Zender (2014:1) observes that this performance informs the organisation's financial structure and can be determined by the financial position of the organisation. This can be regarded as one of the most fundamental characteristics of organisations.

To conclude the discussion on financial performance measures, Table 2.9 indicates some of the areas in which organisations can use financial measures.

Table 2.9: Examples of where organisations can use financial measures

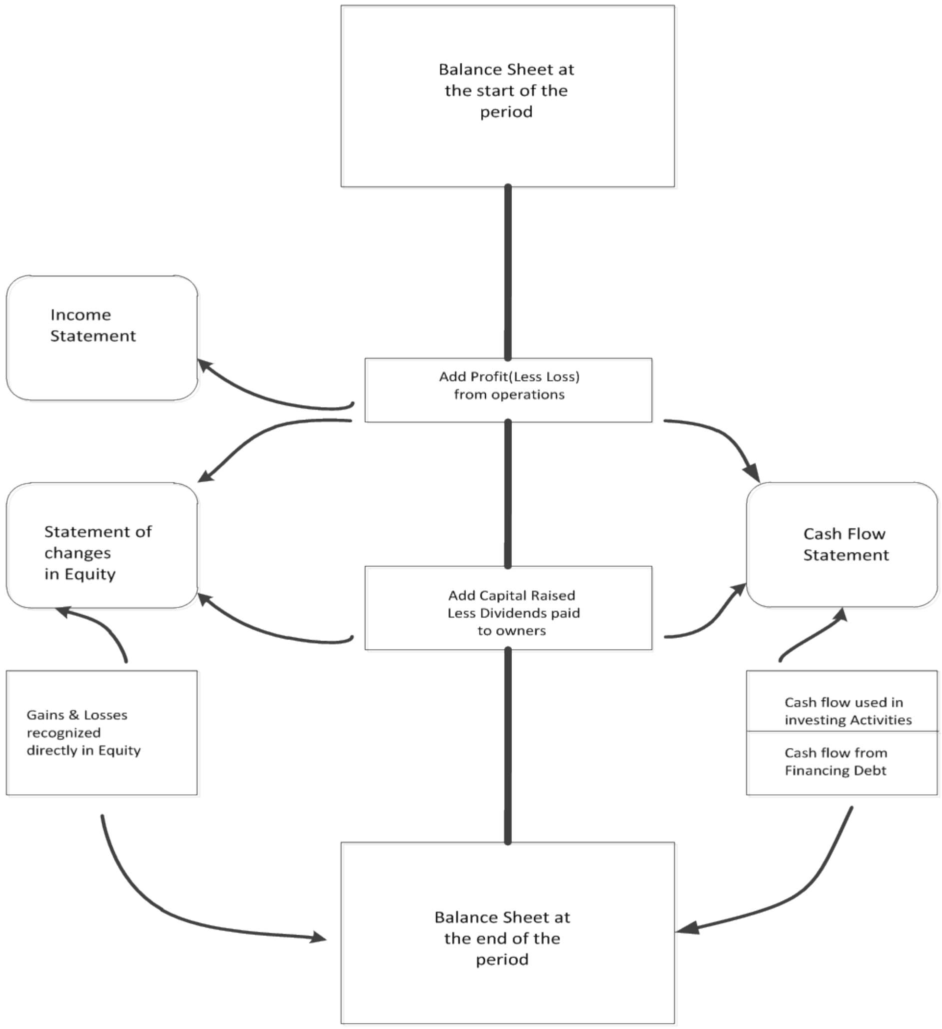
Banking	Petroleum	Retail
Retail	Capital expenditure	Capital expenditure
Customer penetration	Exploration success rate	Store portfolio changes
Asset quality	Refinery utilisation	Expected return on new stores
Assets under management	Volume of proven and probable reserves	Customer satisfaction
Loan loss	Reserve replacement costs	Sales per square foot/metre

Source: *PWC (2007)*

PWC (2007) notes that the measures an organisation employs should be relevant to that particular organisation, as stipulated in Table 2.9, and for this reason management should not create measures to match those reported by their competitors.

Nevertheless one cannot talk about financial performance without referring to financial statements as these are the source of information used to calculate most financial performance indicators. A set of financial statements includes the Statement of Financial Position (balance sheet), the Statement of Comprehensive Income (income statement) and the Statement of Cash Flows (Firer, Ross, Westerfield and Jordan 2004:22). Financial statements may also be viewed as a formal record of the financial activities of an organisation and are written reports that quantify the financial strength, performance, and liquidity of an organisation. The link between the financial statements is illustrated in Figure 2.6.

Figure 2.6: Financial statements



Source: *Adapted from Accounting-Simplified (2013)*

Figure 2.6 depicts all financial statements that are available within an organisation. Griffin (2014) argues that organisations prepare financial statements to assist them in meeting their financial reporting requirements and also to assist in strategic decision-making, adding that no meaningful conclusions can be drawn from these statements. He suggests that organisations should employ financial analysts to read, compare and interpret the data as necessary for quantitative analysis and decision-making. In this way, organisations may be able to generate sustainable information through the use of financial statements which may be useful for decision-making processes and also for its sustainability.

2.6 SUMMARY

This chapter provided a discussion of the background to sustainability, decision-making and stakeholders, as well as financial performance. The chapter also explained the impact of information on the financial performance and sustainability of an organisation. Various examples, tables, and figures provided more relevant information to assist in the examination of the role of management accounting tools in providing sustainability information for decision-making and the influence of this information on financial performance.

Sustainability affects operations management by balancing economic, environmental, and social needs. This has a direct impact on the financial performance of an organisation. Organisations that drive their sustainability therefore stand a great chance of improving their business objectives and performance in the future.

Furthermore, sustainability cannot be achieved only by protecting the environment and overlooking people. Politicians should not view sustainability merely as a branch of economics; it may be essential in generating useful information that drives the performance of an organisation. Information generated by an organisation from sustainability may affect the organisation’s decision-making and financial performance directly.

Consequently, sustainability should become the focus of organisations, both listed and unlisted on the stock exchange, in order to ensure long-term survival of the organisation. Sustainability may concern both organisations and stakeholders by protecting environmental exploitation as well as encouraging corporate social responsibility. Many organisations may regard sustainability as a way of achieving greater profits and as a source of improved shareholder value. Sustainability can thus provide high quality information to support organisations in the decision-making process, which may in turn affect all stakeholders positively.

Management Accounting could assist organisations by providing relevant sustainability information for their decision-making processes. In this way, the information that Management Accounting provides could be applied to make good and reliable decisions for a sustainable future. This could improve the financial performance of an organisation.

Although there are many options to consider when making decisions, Management Accounting can definitely play a major role in assisting managers of an organisation in make sustainability and profitability decisions. A decision tree is useful in generating sustainable decisions that can have a positive impact on the financial statements of an organisation, rather than having only one central point of decision-making, and prolonging the time it takes to make decisions concerning sub-units.

It may be very useful for organisations to apply the guidelines in Table 2.3 to assist them in making valuable and informed decisions that will influence their financial performance positively. Sustainability information for the decision-making process may best be managed and extracted using systems such as DSS, MIS and Expert. Organisations that apply sustainability information provided by these systems may reap the benefits of making decisions that yield positive outcomes for their financial performance.

Thus sustainability decisions may play an important role in guiding an organisation when making decisions that influence financial performance. Based on the prior discussions and tables above it seems possible that it would benefit decision-makers to consider all options when making decisions, which in turn will provide the sustainability information to make the right decisions at the right time.

Consequently, internal stakeholders have different objectives and levels of risks, as indicated in Table 2.6. Therefore, the information provided in Tables 2.6 and 2.7 may provide guidance concerning the purpose of this study as a result of organisational legitimacy and also stakeholder power over strategies that influence financial performance. However, organisations should take advantage of any favourable opportunities available and management should take those actions that create wealth for the shareholder and grow the organisation accordingly.

Hence, for the purpose of this study financial performance may be seen as an integral part of an organisation's sustainability and existence. Organisations may be able to generate sustainable information through the use of financial statements which may be useful for decision-making processes and also for their sustainability.

Based on the above, Management Accounting may be the cornerstone for making successful and profitable decisions for business, which may in turn have a visible impact on financial performance and stakeholders.

The next chapter continues the literature review by discussing other Management Accounting tools that form an integral part of this study.

CHAPTER THREE: MANAGEMENT ACCOUNTING: MANAGEMENT ACCOUNTING INFORMATION AND MANAGEMENT ACCOUNTING TOOLS

3.1 INTRODUCTION

This chapter reviews literature on the Management Accounting tools that provide information relevant to decision-making and that improve the sustainability and financial performance of an organisation. Management Accounting is useful for gathering financial and other information required by internal users. Managers of production environments are concerned with fulfilling organisational goals, executing strategy and communicating and synchronizing product design, marketing and producing while at the same time operating district business segments (Raiborn & Kinney 2013:3). Management Accounting tools may be used to generate or obtain both financial and nonfinancial information that is useful in decision-making and in improving financial performance.

Horngren, Datar, and Rajan (2012:27) state that Management Accounting information assists managers in designing a strategy by answering questions such as:

- Who are our most valuable customers and how can we be competitive and provide value to them?
- Are there any replacement products that exist in the marketplace and what is the difference in our product in terms of quality and price?
- What powers or abilities do we have?
- Do we have funds to finance strategy or will we require additional funds?

These points indicate that Management Accounting information is very useful in many dimensions and that it can assist organisations in becoming sustainable and also in improving their financial performance. Jiambalvo (2010:i) observes that Management Accounting is concerned with using information to effectively plan and control operations and make good business decisions. Thus the overall purpose of this chapter is to discuss the tools and concepts needed for planning, control, and decision-making.

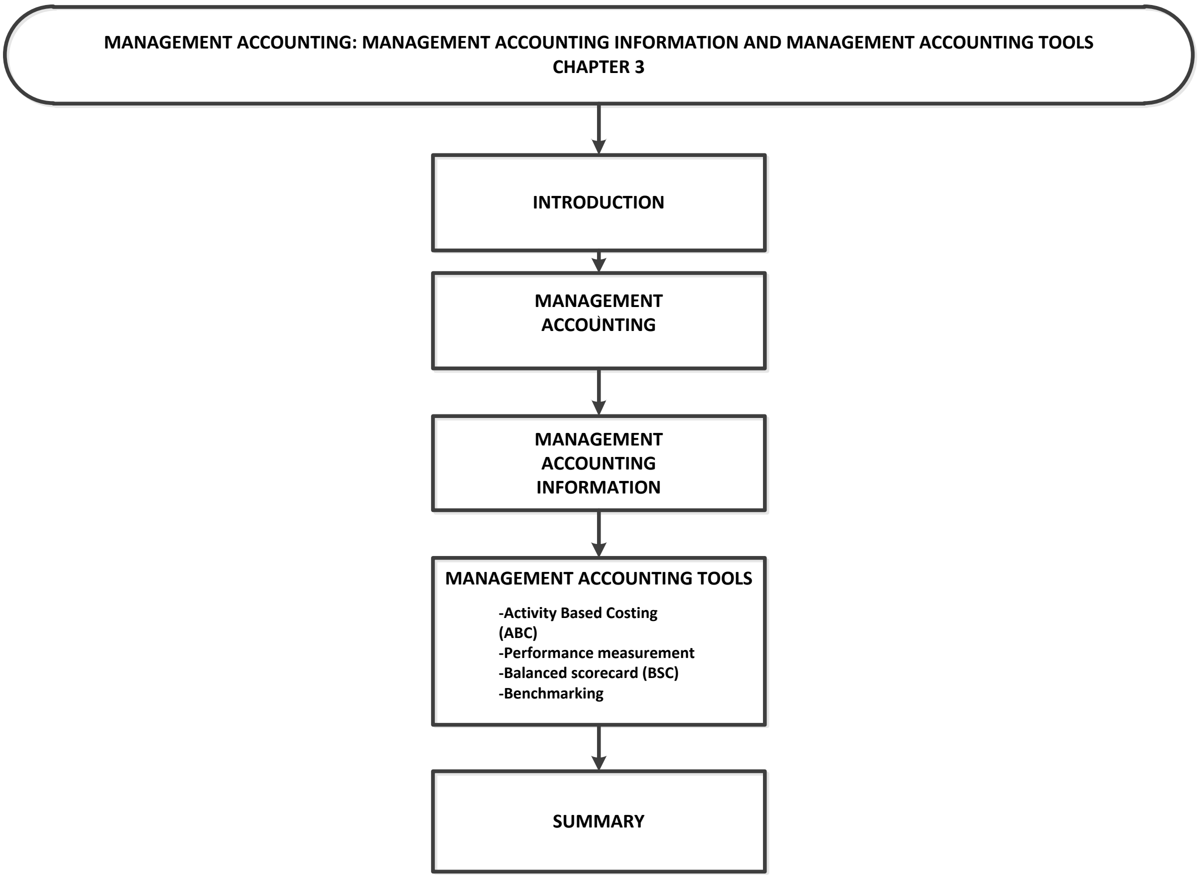
This chapter provides more information on the theory that directs the study. Section 3.2 explains more details on Management Accounting. Management

Accounting information is discussed in Section 3.3 and Management Accounting tools in Section 3.4. Section 3.5 summarises the chapter.

3.1.1 Layout of Chapter 3

The layout of Chapter 3 is presented in Figure 3.1.

Figure 3.1: Visual layout of Chapter 3



3.2 MANAGEMENT ACCOUNTING

Garrison, Noreen, and Brewer (2010:33) argue that Management Accounting is concerned with providing information – to people who manage and govern its operations inside an organisation. They also believe that Management Accounting emphasises decisions affecting the future, relevance, and timeliness. Vitez (2009) argues that financial information should be separated from Management Accounting information to ensure that only valid, timely, and relevant information is contained in management reports. Thus, the importance of Management Accounting may lie in its providing relevant information for planning, control, and performance measurement.

Correia, Langfield-Smith, Thorne, and Hilton (2008:6) view Management Accounting as the techniques and processes that focus on the use of organisational resources as well as activities and tasks that support managers in creating shareholders and customer value. They believe that Management Accounting supports an organisation's creation and execution of strategy, which enhances an organisation's competitive advantage and supports both the strategic and the operational decision needs of managers. Management Accounting can thus prove valuable to an organisation in its provision of sustainability information for decision-making on financial performance.

Proctor (2012:xxi) argues that Management Accounting is about improving the future performance of organisations and is primarily concerned with the provision of information to managers of organisations so as to help them to plan, evaluate and control activities. Management Accounting has three roles, according to Proctor (2012:xxi):

- **Directing attention** to accounting information for the purpose of forming plans and making resolutions.
- **Keeping the score** in discerning the successes of resolutions.
- **Solving problems** that emerge as a result of resolutions not working as expected.

Therefore, it may be important for many organisations, both listed on the stock exchange and unlisted, to make use of Management Accounting tools in the provision of sustainability information that can be useful in improving financial performance and sustainability.

Although management accountants have traditionally been seen as number crunchers, many organisations use them to focus on analysing information and creating knowledge from it, rather than collecting data. This has resulted in management accountants becoming decision-support specialists and facilitators of a management decision-making system (Jackson, Sawyers, & Jenkins 2009:33). Management Accounting may therefore be considered important in the provision of sustainability information for decision-making, which influences financial performance.

CIMA (2014) observes that Management Accounting merges finance, accounting and management with leading edge mechanisms required for driving a successful organisation. It further explains a management accountant's duties and skills as:

- Educating managers regarding the financial implications of projects.
- Making clear the financial outcome of business decisions.
- Developing business strategy.
- Observing spending and controlling finances.
- Conducting business audits internally.
- Making clear the influence of a competitive landscape.
- Exercising integrity and professionalism throughout the business.

Skills of management accountants include:

- Analysis – Information that is used to make business decisions must be analysed.
- Strategy – Business strategy must be created for purposes of creating wealth and value for shareholders.
- Risk – Risk must be identified and managed.
- Planning – Accounting methods must be applied to planning and budgeting.
- Communication – Information that management needs must be determined and explanations of the numbers must be made to non-financial managers.

These duties and skills of management accountants suggest the importance of Management Accounting within the organisation if it is to remain sustainable and profitable in the long-term. Kumar (2014:1) confirms the importance and relevance of these duties and skills by stating the advantages of using Management Accounting within an organisation:

- Increases productivity and effectiveness
- Maximises the capacity to make profit
- Clarifies and simplifies financial statements
- Controls business's cash flow
- Informs business-critical decisions.

Using Management Accounting within an organisation may improve the financial performance, decision-making, as well as the sustainability of the organisation. The information obtained from Management Accounting is explained in the next section.

3.3 MANAGEMENT ACCOUNTING INFORMATION

Management Accounting information is focused on decision-makers and internal managers and its purposeful use is to provide financial information applicable to a manager's operations in an attempt to create sound organisational decisions. Management Accounting information occurs in the form of budget forecasts, financial ratios, cost accounting and variance analysis (eHow 2014). Jain (2014) asserts that Management Accounting information can be used to calculate the cost of a product, evaluate performance of the organisation, and project material needs as well as evaluating the market price of the stock. Management Accounting information can play a very useful role in decision-making and in improving the financial performance of the organisation as a result of the sustainability information that comes from financial ratios, budgets and cost accounting. In the following section, Management Accounting tools are discussed.

3.4 MANAGEMENT ACCOUNTING TOOLS

Management Accounting tools may assist an organisation in creating shareholder value and also improving its financial performance. Modern tools such as ABC provide relevant information which can be useful in the decision-making process. The BSC and performance measurement may also assist an organisation in improving financial performance and sustainability. Hence management accountants should choose the right tool for the specific context, a decision which should be based on their technical knowledge, professional experience, and judgement, for the organisation to achieve its goals and vision (CIMA 2009:5).

3.4.1 Activity-Based Costing (ABC)

Weygandt, Kimmel and Kieso (2010:2) view ABC as a beneficial tool as it results in more accurate product costing and in more careful scrutiny of all activities in the value chain, leading to better management decisions and greater control over overhead costs. Although there are limitations such as cost, many organisations find ABC useful for accurate product costing.

Kaplan and Anderson (2007:3) emphasise that ABC can be used to measure product cost and customer profitability. They also observe that time-driven ABC is a simpler, more powerful and more cost effective method which simplifies costing processes, making it a useful tool to obtain accurate information that enhances the financial performance of an organisation.

Avis (2009:202) observes that ABC is particularly useful for product costing where:

- Production overheads are excessive in correlation to direct costs.
- There is a wide variety in the product range.
- Products utilise very different amounts of the overhead resources.
- Utilisation of overhead resources is not fundamentally driven by volume.

Avis (2009) mentions that organisations that use ABC have found other advantages that fall within activity-based management and she emphasises that it is in activity based management that the real benefits of ABC often lie. Organisations have found it beneficial to apply ABC for costing employees, resources or all activities that involve or have an impact on costs. This may improve an organisation's financial performance by saving unnecessary indirect costs.

ABC improves the accuracy of an organisation's product costs as it is possible to identify a large number of activity cost pools and also to select appropriate cost drivers for each activity (Business case newsletter 2014). Thus an organisation may use ABC to measure both the cost of objects and the performance of activities, which may improve its financial performance.

Many listed organisations may succeed in cutting costs by using their Management Accounting divisions to overcome inaccurate conventional costing. Whitecotton, Libby, and Phillips (2011:152) argue that to achieve the true benefits of ABC, managers should move from simply measuring costs to finding ways of managing them. In this way, the successful and effective management of costs may lead to an organisation performing according to its set targets and goals.

Management information systems are used to trace and provide information regarding the horizontal features of an organisation and have shown the delaying effect, most notably behind managers' needs. As a result, ABC fulfils this information space by providing operation information and costs that mirror a horizontal perspective (Edwards 2008:6). He lists the benefits and drawbacks of ABC as presented in Table 3.1:

Table 3.1: The advantages and disadvantages of ABC

Advantages	Disadvantages
• Accurate technique for costing of services and products is provided by ABC. • Understanding of overheads and what causes them to occur is provided by ABC. • Expensive and non-value adding activities are more visible; therefore, ABC permits managers to focus on these areas to lessen or remove them. • Continuous upgrade, scorecards and performance management are supported by ABC.	• Collecting information or data about cost drivers and activities can be time consuming using ABC. • ABC system can be expensive to execute and complex to manage. • Other overhead costs are complex to assign to products and customers. These costs still have to be arbitrarily applied to products and customers.

Although ABC has some disadvantages, according to the above table its benefits outweigh these if applied correctly. Organisations can benefit from using ABC as it may reduce costs and provide more reliable information when costing products. According to Averkamp (2003:1), ABC allocates production overhead costs to products in a more rational manner than the traditional approach of simply assigning costs on the basis of machine hours. ABC first allocates costs to the activities that are the real cause of the overhead and then allocates the cost of those activities only to the products that actually demand the activities. In this way, using ABC for cost allocation reduces costs as indicated below:

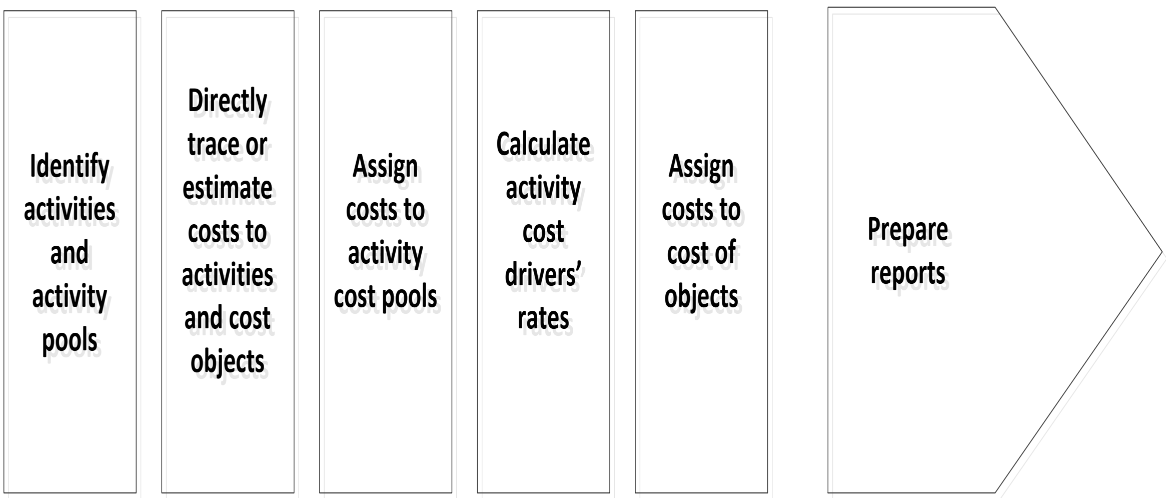
Table 3.2: Example of ABC

	With ABC	Without ABC
Mfg overhead costs assigned to setups	ZAR 200,000.00	ZAR 0.00
Number of setups	ZAR 400.00	Not applicable
Mfg overhead cost per setup	**ZAR 500.00**	**ZAR 0.00**
Total manufacturing overhead costs	ZAR 2,000,000.00	ZAR 2,000,000.00
Less: Cost traced to machine setups	**ZAR 200,000.00**	**ZAR 0.00**
Mfg O/H costs allocated to machine hours	ZAR 1,800,000.00	ZAR 2,000,000.00
Machine hours (MH)	ZAR 100,000.00	ZAR 100,000.00
Mfg overhead costs per MH	**ZAR 18.00**	**ZAR 20.00**
Mfg overhead cost allocations	**500 setup cost per batch + 18 MH**	**20 per MH**

Source: *Averkamp (2003)*

The aim of the ABC system is not only to reduce costs, as indicated in Table 3.2, but to change the way in which costs are counted (The Economist 2014). Moreover, ABC has the following processes, as displayed in Figure 3.2 (CGMA 2014).

Figure 3.2: The activity-based costing process



Source: *Adapted from CGMA (2014)*

In addition to the above processes, ABC further explains the benefits generated by the processes: ABC provides a more precise technique for the costing of products and services, leading to more accurate pricing decisions. It increases awareness of overheads and cost drivers and constructs expensive and non-value adding activities more clearly, allowing managers to abolish them. ABC enables the practical challenge of operating costs to find better ways of assigning and getting rid of overheads. It also allows improved product and customer profitability analysis. It supports performance management techniques such as continuous improvement and scorecards (CGMA 2014). In using ABC, Management Accounting may assist organisations in the costing and monitoring of activities, which involves tracing resource consumption and costing final outputs, thereby improving financial performance of an organisation.

ABC activities have been in existence for nearly 20 years and many organisations in different sectors have implemented activity based thinking, This has brought about extensive changes in cost management systems (Edwards 2008:6). Consequently, ABC is best suited for organisations that have various outputs with differing levels of complexity and operational intensity. It is also well suited to those organisations that provide customers with varying levels of products or services. ABC permits such organisations to correctly ascertain the amount of total funds and resources dedicated to each particular project (Rothberg 2011:1). Thus, in organisations that have various outputs with differing levels of complexity and operational intensity, ABC may be a better option to apply than traditional costing systems and may result in improved decision-making and financial performance.

Although there is a misconception that ABC is only suitable for manufacturing organisations, service organisations can enjoy the same benefits by using it. All organisations have an obligation to understand their true costs, including the aid required to vend and deliver goods and services (Scroggins 2014). Scroggins (2014) argues that ABC assists organisations to better understand the cost structure, which leads to better budgeting, estimating, and bidding. ABC also allows organisations to calculate product line profitability and customer profitability, which allows them to make finer decisions about sales ‘mix’ and marketing efforts. Using ABC assists organisations in setting up a price structure that charges clients and customers according to the aid required for their particular circumstances. Therefore organisations that fully adopt ABC may benefit as it may serve as a machine for reducing cost and improving business activities. This may in turn improve the decision-making and financial performance of the organisation.

3.4.2 Performance measurement

In the past two decades there has been an increase in the design and discovery of new ways to measure organisations and managerial performance. The use of financial versus non-financial measures for performance and the different ways of combining financial and non-financial measures are some of the new ways that have emerged (Bhimani 2006:31). Performance measurement can be seen as a meeting point of decision-making.

Correia *et al.* (2008:662) believe that performance measurement is a crucial part of the planning and controlling process that assists managers in assessing the value added by the various operations and activities. According to these authors, performance measurement has five purposes:

- It can be used to align employees' goals with those of the organisation and also to communicate the plans and strategy of the business.
- Performance measures can be used by managers to track their performance against targets.
- Managers are able to identify problem areas as a result of reporting performance.
- Performance measures can be used by senior managers to evaluate the performance of subordinates and also as the basis for rewards.
- Senior managers can use performance measures to guide them in developing future strategies and operations.
- Performance measurement can be a useful Management Accounting tool since it can assist in the strategy and improvement of the financial performance of an organisation.

These five purposes of performance measures can provide guidance to the organisation regarding benefits it may result in. Most performance measures can be classified into one of the following six general categories (Artley & Stroh 2001:37).

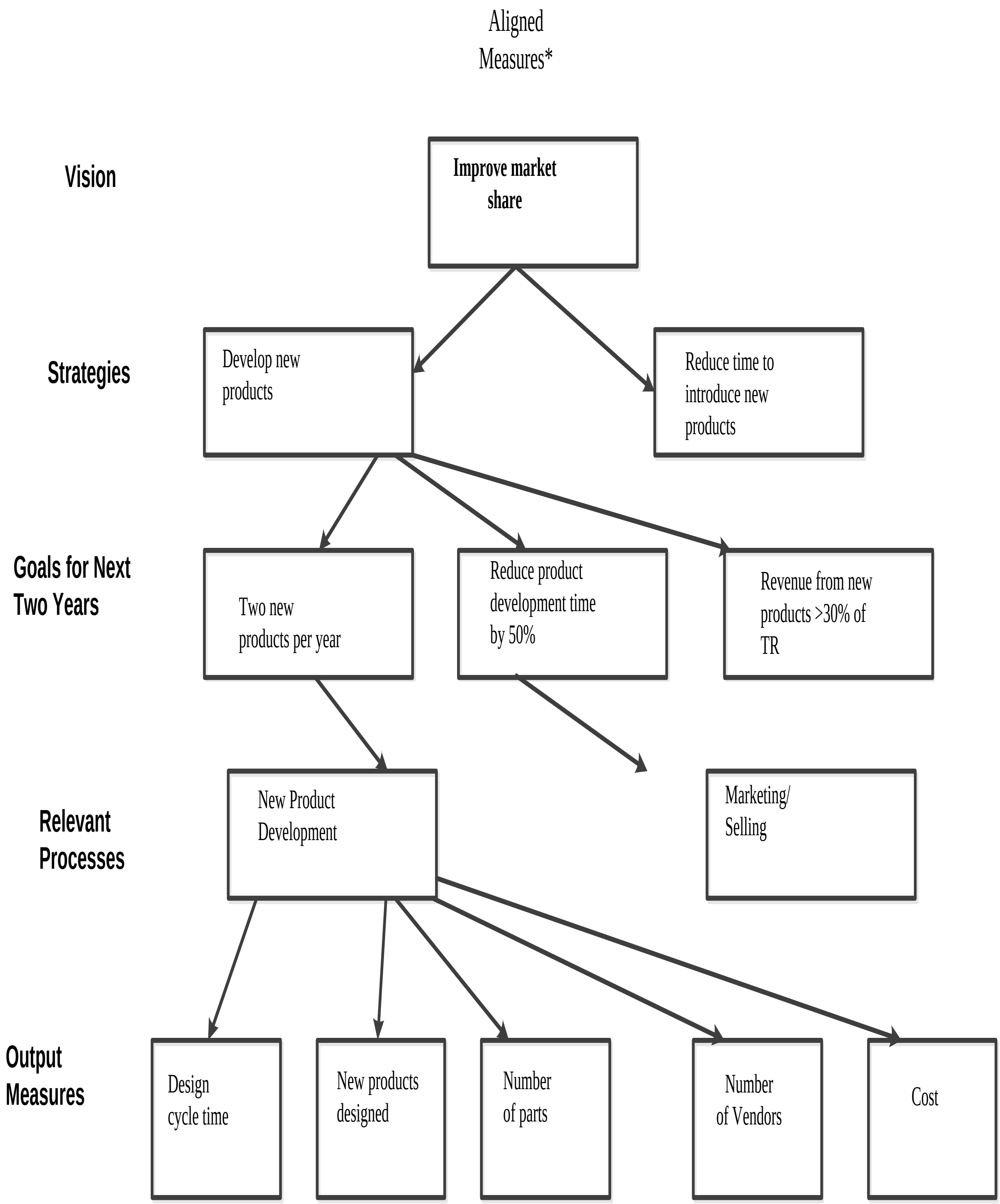
However, certain organisations may develop their own categories as appropriate, depending on the organisation's operations:

- **Effectiveness:** Specify the level to which the process output conforms to requirements. (Indicates if things are done right.)
- **Efficiency:** Specify the level at which the process manufactures the required output at minimum resource cost. (Indicates if things are done right.)
- **Quality:** Indicates whether service and products meet customer requirements and expectations.
- **Timeliness:** Computes whether a segment of work was completed accurately and on time. Criteria must be set to explain what initiates timeliness for a given segment of work. Customer requirements must be the basis for the criteria.
- **Productivity:** The value generated by the process divided by the value of the labour and capital consumed.
- **Safety:** Overall organisational health is measured by the working environment of its employees.

These measures may assist the organisation in measuring its own effectiveness, efficiency, quality and timeliness, its productivity as well as its safety, which in turn may have a direct or indirect impact on decision-making system and financial performance.

Wrobel (2002) argues that performance measures should be relevant and current for them to be functional in an effective organisational environment. Static measures, such as direct labour efficiency, often outlive their adequacy. The alignment between vision, strategy, programmes, measurement, and rewards must be maintained at all times. Wrobel (2002) outlines key steps in designing an effective performance measurement system, as indicated in Figure 3.3:

Figure 3.3: Steps in designing an effective performance measurement system



Source: *Adapted from Tatikonda and Tatikonda (1998) Figure 1, p.50.*

The alignment indicated by Figure 3.3 shows that if organisations identify a vision and strategic goals and translate these goals into specific sub goals, profiling existing systems and defining measures, this will lead to an effective performance measurement system. Therefore organisations may design measures while implementing strategic goals, a mission and a vision for the organisation so that its performance measurement system is in aligned with its goals.

Scheller (2014) argues that there are seven principles of performance measurement that outline the features that performance measures must have if they are truly going to be functional within organisations:

- Organisations should have a clear purpose
  Performance measures which provide neutral confirmation of the outcome and that either explain or guide the successes of organisation so that focus should effectively remain on what matters most in achieving, sustaining and promoting those successes.
- Organisations should think systemically (holistic approach)
  When organisations implement, translate or use a performance measure, they should cautiously consider unforeseen outcomes that might result from using it, such as the effect on other sectors of performance and especially on the favourable outcome of cross-functional organisations as a whole.
- Organisations should align with processes (from independent to interdependent)
  Cross-functional, interdependent organisational processes should be used as the structure for choosing and explaining KPIs so that intended performance outcomes can be interpreted as straight, actionable, and suitable action.
- Organisations should reflect the correct behaviour (one culture, one team)
  Implement measures that motivate and reward people, encouraging them to behave in ways that achieve targeted outcomes, and encouraging and promoting the organisation’s success. People are aware that most organisational decisions are controlled by performance measures.
- Organisations should build integrity and trust (ownership)
  Make sure that organisation information and measures (KPIs) are correct and match the correct standards (both intuitively and statistically) by being

objective, unambiguous and accurate enough to clearly explain and fit their purpose.

- Organisations should be aware of variation (technology, processes, and people)

  There should be a range in performance levels when interpreting measures (KPIs) to determine when organisations are required to do something about them as opposed to reacting to sudden changes.
- Organisation should integrate with decision making (change, focus, speed, results).

  Outline the measurement (KPIs) process so that it provides the most useful information in the most functional way; employees should participate in exploring questions, assessing options, making decisions and taking actions to continuously enhance process measures (KPIs) by employing proven methodologies.

Based on this information, organisations that apply the seven steps may benefit by having a successful and effective performance measure system that will in turn influence the success of the organisation.

Trevett (2014) believes that setting performance measurement systems in place could be an important way of keeping track of the headway made by an organisation as this provides important information regarding what is occurring presently, It also provides the starting point for a system of goal setting that will assist in executing strategies for magnification. The application of appropriate performance measures by organisations may provide a good measurement system and organisations may then be in a better position to manage performance proactively.

Guan, Hansen and Mowen (2009:470) argue that performance measures are process positioned while performance evaluation focuses more on the advancement of processes such as quality, efficiency, and time. However, organisations could benefit by making use of performance measures as organisational goals could coincide with those of management, resulting in better decision-making and better management of an organisation. Improvement in processes such as quality, efficiency, and time may lead to organisations realising their goals quickly, leading to an improvement in performance of the organisation.

Langfield-Smith, Thorne, and Hilton (2012:644) view non-financial measurers as measures that:

- Emphasise strategy
- Drive financial performance
- Are more actionable
- Are more timely
- Are more understandable and easier to relate to.

They argue that financial performance measures focus on financial gain and its components, sales and costs. The nature of financial measures is therefore to guide organisations in focusing more on non-financial measures as financial measures furnish little guidance for future actions and also increase actions that reduce both shareholder and customer value (Langfield-Smith *et.al* 2003:14.3)

They further argue that managers of an organisation can find performance measurement useful in guiding them in developing future operations and strategies. Performance measurement assists in tracking performance of managers against targets and in communicating strategy and plans of organisations. The use of a performance measurement system in an organisation may allow management to measure overall performance and assist in the implementation of better strategies.

A balanced performance measurement system can assist organisations in the provision of relevant information, leading to better decision-making and more efficient results (Tipping 1999). Wolk, Dholakia, and Kreitz (2009:11) confirm that performance measurement provides important information for advancing social innovation: the process of developing, testing, and honing new and potentially transformative approaches to existing social issues. A performance measurement system can drive the success of an organisation and its financial performance, as well as its decision-making, in becoming more sustainable.

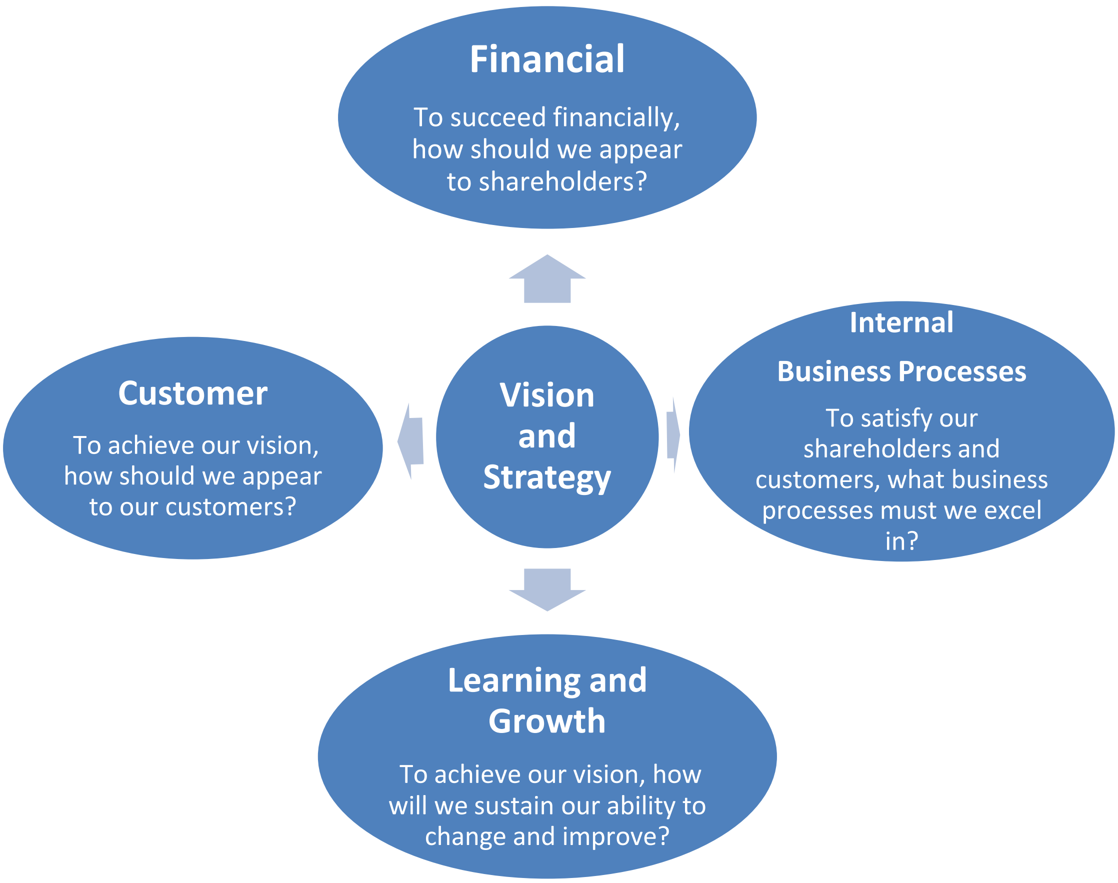
Performance measurement may be critical to the success of many organisations and should therefore be managed effectively. Contemporary performance measurement systems monitor performance across a whole range of critical success factors such as sustainability, innovation, delivery and quality (Langfield-Smith *et al.* 2012:43). Therefore, performance measurement may assist management in monitoring performance as well as in driving successful performance measurement systems that improve organisational stability.

3.4.3 Balanced scorecard (BSC)

Hilton and Platt (2011:43) define the BSC as a model of business performance evaluation that balances measures of financial performance, learning, innovations and internal operations. BSC comprises four perspectives: financial, internal operations, customer, and learning and growth. These perspectives may play an important role in increasing the performance and sustainability of an organisation.

Whitecotton *et al.* (2011:417) regard the BSC as a comprehensive performance measurement system that translates an organisation's vision and strategy into operational performance metrics. They explain the four dimensions as depicted in Figure 3.4.

Figure 3.4: The four dimensions of the balanced scorecard



Source: *Adapted from Sterling Strategies* (2013)

These goals and metrics should ideally be focused on promoting the achievement of the organisation's vision and strategy (Sterling 2013). An organisation could thus find the four dimensions of the BSC beneficial as they might result in improved decision-making and financial performance.

The Balanced Scorecard Institute (2014) argues that the BSC retains traditional financial measures, but financial measures tell the story of historic events, an adequate story for industrial age organisations for which investments in long-term capabilities and customer relationships were not important for success. Today these financial measures are inadequate in guiding and evaluating the journey that information age organisations should make to create future value through investment in customers, suppliers, employees, processes, technology, and innovation, as explained below:

- **Customer perspective:** How do we want our customers to see us?
- **Learning and growth perspective:** How will we sustain our ability to change and improve?
- **Internal business processes:** What internal processes will we require to meet the needs of our customers, shareholders, and employees?
- **Financial perspective:** How do we satisfy our shareholders and other stakeholders?

An organisation can use these dimensions of the BSC as an investment in their organisation in order to ensure that it yields good financial performance. Kaplan and Norton (2007) confirm these views, observing that as organisations around the world change themselves as a result of rivalry based on information, their means to utilise intangible assets have become far more resolute than their capacity to invest in and manage physical assets. Consequently, BSC has supplemented traditional financial measures with criteria that measure performance from three additional perspectives: customers, internal business processes, and learning and growth. Organisations can thus use the BSC as a tool to advance information that is relevant to decision-making, financial performance and sustainability.

BSC furnishes an organisation with a strategy to advance customer relations and internal processes that improve the decision-making process (Marr 2014). It is a useful tool in guiding the organisation in the right direction to improve financial performance and sustainability. It is also an instrument that aids the successful execution of an organisation's strategies (Figge, Hahn, Schaltegger & Wagner 2002:269).

CIMA (2008:290) argues that the BSC is tool that furnishes information to management to assist them in strategic policy formulation and achievement, and it emphasises the need to provide the user with a set of information that addresses all the relevant areas of performance in an objective and unbiased manner. In this way, the BSC can improve an organisation's strategy formulation by providing more relevant information with which to make for decisions.

According to Proctor (2012:340), the BSC has broken the monopoly of financial ratio analysis in the assessment of an organisation's performance and it is a system often used to guide and assess an organisation's performance. Organisations may use the BSC and other modern systems such as ABC to tackle management and organisational challenges. It may be derived from the explanation above that Management Accounting is more into the performance of the organisation.

Proctor (2012:468) argues that the successful implementation of the BSC may be costly as it may involve increased communication, more training and costs. Nevertheless he provides ten suggestions to assist in its successful implementation:

- The BSC should be used as a basis for implementing strategic goals.
- Ensure that a strategy is in place before implementing the scorecard.
- Ensure that senior management support the scorecard.
- A pilot project should be run before implementation.
- The scorecard should be designed to meet the requirements of the organisation.
- The scorecard should be introduced once the design has been tailored to the organisation's needs.
- The scorecard should not be used as a method of hierarchical control.
- Training and communication should be properly done.
- The scorecard should not be complicated by striving for perfection.
- Costs of recording, administrating, and reporting should not be underestimated.

These points can assist organisations in implementing the BSC successfully. McCarthy and Chapman (2013) confirm that implementing the BSC system is an important task in the successful awareness of the strategic plan and vision. They believe that the BSC should result in:

- Enhanced processes
- Motivated and well informed employees
- Improved information systems
- Observed progress
- Improved customer satisfaction
- Increased financial utilisation.

Therefore implementing the BSC may not only benefit the organisation but could also result in customer satisfaction and more motivated employees. This hold benefits for the sustainability of the organisation.

Managers of an organisation should know that if they select non-financial performance indicators successfully, these may lead to an improvement in financial performance, which in turn increases profit. Improvements with regard to the use of the BSC may be:

- Customer satisfaction may improve profit and shareholder value.
- Internal organisational processes may improve the satisfaction of customers.
- Learning and innovation may also improve internal organisational processes.

As far as the possibility that the BSC may improve profit, customer satisfaction and internal organisational processes is concerned, Kaplan and Norton (1992:77) confirm that financial performance measures show whether the organisation’s strategy, implementation and execution are contributing to profit improvement. They further argue that managers should not choose between financial and operational measures because many senior executives do not rely on only one set of performance measures as no single measure can provide a clear set of performance targets. Thus the BSC may be more relevant in terms of measuring success of an organisation and its financial performance.

Weetman (2006:414) argues that in strategic management, the BSC is more than a performance report and is a useful tool in strategic management. This author mentions five principles of the BSC:

- Translate the strategy into operational terms.
- Align the organisation to the strategy.
- Make strategy everyone's everyday job.
- Make strategy a continual process.
- Mobilise leadership for change.

If managers of organisations implement these principles of the BSC they may benefit in terms of gaining an understanding of how to set goals and objectives for their organisations that improve their sustainability and performance. Schiff (2006) believes that the BSC does many things correctly and accurately, including allowing an organisation to balance internal and external focus and to consider both leading and lagging indicators. He argues that with the appropriate understanding and information, organisations can do much without all the rigor and investment required. Hence an organisation that implements the BSC may improve both internal and external operations, which could influence financial performance directly or indirectly.

Managers of organisations that apply the BSC may find it easy to set performance measures that improve and support the organisation's strategy. For this reason, the BSC should not include too many performance measures as this might result in a lack of focus and uncertainty. The BSC if applied accurately it can play an important role in providing information to improve and sustain an organisation. The BSC provides the lens for aligning strategies and goals and once the BSC is developed, all the initiatives currently under way in the organisation should be reviewed to determine which are truly critical to the fulfilment of organisation strategy and which are merely using valuable and scarce resources (Niven 2006:iii). The BSC may just be the measure that is balanced correctly and relevant to any organisation desiring to function at its best.

3.4.4 Benchmarking

Whitecotton *et al.* (2011:147) believe that benchmarking can be used to pinpoint areas where a company is ahead and to provide managers with incentives to improve their own operations. There has been an increase in the use of benchmarking to achieve best standards or practice; benchmarking establishes attainable standards by the examination of both external and internal information (CIMA 2008:117). A benchmark may provide a standard of excellence against which to measure and compare, assisting organisations to achieve good performance.

Langfield-Smith *et al.* (2012:660) view benchmarking as a system that compares activities, products. and functions of an organisation against other organisations to identify areas for advancement and to apply a programme of continuous improvement. Formal benchmarking involves the following five steps and four forms (Langfield-Smith *et al.* 2012:660):

- Identifying the activities to be benchmarked and the performance measures
- Selecting benchmark partners
- Data collection and analysis
- Establishing performance goals
- Implementing plans

Forms of benchmarking:

- Internal benchmarking involves benchmarking between organisational units within the same organisation.
- Competitive benchmarking involves an organisation identifying the strengths and weaknesses of competitors in order to assist it in prioritising areas for improvement.
- Industry benchmarking involves comparing performance against organisations that have similar interests and technologies.
- Best-in-class benchmarking involves benchmarking against the best practices that occur in any organisation.

These steps and forms can guide organisations on how best to utilise benchmarking to advance sustainability.

An organisation may enhance its competitive advantage by benchmarking with similar organisations. Tidd, Bessant and Pavitt (2005:1) believe that the way benchmarking works is for an organisation to select examples of actual best practice and to compare their performance with those practices. They argue that benchmarks can be designed along several dimensions of performance, such as quality, productivity, flexibility and customer service, and comparisons can be made with similar organisations (in terms of size, sector and product/markets). Benchmarking can provide an organisation with sustainability information which it can use to achieve its goals and objectives.

As benchmarking emphasises the improvement of profit and the measuring of performance, the role of management accountants starts by directing attention to producing performance measures and showing relationships with profit improvement (Weetman 2006:410). Weetman (2006) views benchmarking as a process of measuring the organisation's operations, products and service against those of competitors recognised as market leaders, in order to establish targets that will provide a competitive advantage, Organisations can benefit from this as their processes of measuring will be in alignment with competitors.

Griffin (2006:5) notes the following advantages and disadvantages of benchmarking:

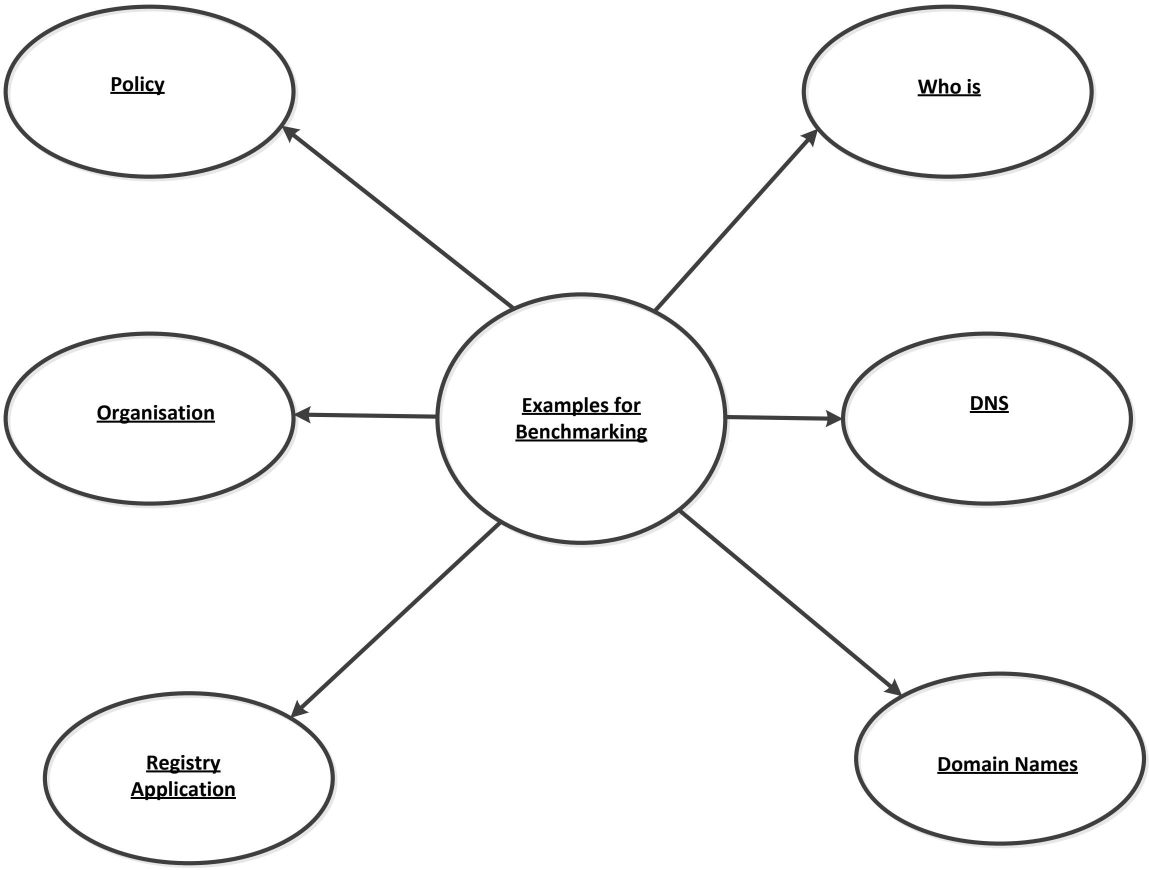
Table 3.3: Advantages and disadvantages of benchmarking

Advantages	Disadvantages
Learn from others' experience and practices	What is best for someone else may not suit you
Allows examination of present processes	Benchmarks that are poorly explained may lead to wasted effort and meaningless results
Aids change and improvement	Incorrect comparisons
Implementation/changes more likely	Reluctance to share information
Overall industry improvement	

Source: *(Griffin 2006:5)*

Although benchmarking has disadvantages that are fairly significant, once an organisation manages to overcome these, the advantages will certainly affect any organisation positively. Griffin (2006:5) provides an example of benchmarking, indicated on Figure 3.5:

Figure 3.5: Example of Benchmarking



Source: *adapted from Griffin (2006:18)*

This example gives an indication of how benchmarking can be achieved, based on the type of organisation and the products, services or operations of this organisation.

Abuzaid (2009) mentions several different types of benchmarking in which an organisation can engage, noting that these take different forms and have different names, depending on organisational perspectives. The type of benchmarking selected depends on the measures needed and the methods used to collect the data:

- Internal good practice benchmarking
- Competitive benchmarking
- Functional benchmarking
- Generic benchmarking
- Strategic benchmarking
- Performance benchmarking

- Process benchmarking
- External benchmarking
- International benchmarking

Organisations should select the type of benchmarking best suited to their processes. Abuzaid (2009) argues that:

- Benchmarking is a more efficient way of making improvements and is being used more and more.
- Benchmarking speeds up an organisation's ability to make improvements.
- Benchmarking is about adding value, not only making changes and improvements for the sake of making changes.
- When an organisation considers benchmarking they look at all aspects of the business, its products, and its processes.
- Benchmarking will not work unless an organisation implements it successfully.

These tips can definitely add value it terms of how benchmarking is perceived by organisations.

An organisation that uses benchmarking may identify the best ways of performing certain tasks and processes and may in this way improve its efficiency and effectiveness. Management accountants can use benchmarking to save money and costs that an organisation might incur, suggesting, and implementing best practices that can lead to an increase in profit (FM Benchmarking 2014). It is thus possible that one of the objectives of management accountants is to establish how the activity can be improved and to ensure that improvements are implemented.

In conclusion, Riley (a) (2012) argues that benchmarking should not be considered a once-off exercise; for it to be truly effective and efficient, it should become a continuous and essential part of an ongoing improvement process with the goal of keeping abreast of ever-improving best practice. Different types of benchmarking are explained in Table 3.4 (Riley (a) 2012):

Table 3.4: Types of Benchmarking

Type	Description	Most appropriate for the following purposes
Strategic Benchmarking	Where organisations require the upgrading of overall performance by inspecting the long-term strategies and general approaches that have qualified high-performers to advance. It involves bearing in mind high level aspects such as core competencies, developing new products and services and improving capabilities for dealing with changes in the external environment.	Restoring organisation strategies that have become unsuitable.
Performance or Competitive Benchmarking	Businesses examine their state in connection with performance characteristics of important products and services. Benchmarking partners are drawn from a similar section. This type of analysis is frequently tackled through trade associations or third parties to protect confidentiality.	Analysing the relative level of performance in important sectors or activities in comparison with others in the same area and finding ways of closing gaps in performance.
Process Benchmarking	Enhancing specific important processes and operations is the main focus of process benchmarking. Benchmarking partners are sought from best practice organisations that perform the same work or provide similar services. Process benchmarking invariably necessitates manufacturing process maps to facilitate comparison and analysis. The outcome of this type of benchmarking lies frequently in short-term benefits.	Achieving improvements in key processes to obtain instant benefits.
Functional Benchmarking	Organisations seek to benchmark with partners drawn from various organisational sectors and areas of activity to find ways of enhancing similar operations or work processes. Innovation and dramatic improvements can be achieved.	Enhancing activities or services for which counterparts do not exist.

Type	Description	Most appropriate for the following purposes
Internal Benchmarking	Involves benchmarking organisations or functions from within the same organisation (e.g. organisation units in different countries). The main benefits of internal benchmarking are that access to sensitive issues and information is easier; standardised data is often readily available; and less time and fewer resources are usually needed. There could be fewer obstacles to execution as practices could be relatively simple to move across the same organisation. However, real change could be lacking and best in class performance is more commonly found through external benchmarking.	Number of organisational units within the same organisation exemplifies better practice and management needs to spread this expertise fast, throughout the organisation.
External Benchmarking	Involves analysing outside organisations that are known to be best in class. External benchmarking provides opportunities for learning from those who are at the "leading edge". This type of benchmarking can consume more time and resources to ensure the comparability of data and information, the credibility of the outcomes and the development of sound recommendations.	Where examples of good practices can be found in other organisations and there is a lack of good practice within internal business units.
International Benchmarking	Best practitioners are identified and analysed somewhere in the world, perhaps because there are too few benchmarking partners within the same country to produce reliable results. Globalisation and advances in information technology are increasing opportunities for international projects. However, these could require more time and resources to set up and implement and the outcomes could require careful analysis as a result of national differences.	Where the aim is to achieve world class status or simply because there are insufficient “national" businesses against which to benchmark.

Source: *Riley (a) (2012)*

The table explains a few types of benchmarking from which organisations may select the appropriate one for their line of business. The next section summarises the chapter.

3.5 SUMMARY

In Chapter 3, Management Accounting, Management Accounting information and Management Accounting tools were discussed. These tools are the cornerstone for deriving relevant information needed to examine whether Management Accounting can provide sustainability information for decision-making and how this influences the financial performance of an organisation.

Amongst others, the following were also discussed in this chapter: ABC links with activity based management (ABM) in order to collect financial and operational data on the underlying nature and extent of organisational activities so that activities incurred during performance processes can improve customer value and organisational profit. ABC may assist managers in making better decisions about financial performance and profitability, which could contribute to the sustainability of an organisation. Therefore the impact of ABC may play a role in an organisation and may lead to increased profit.

A performance measurement system may also assist managers in tracking and implementing an organisation's strategy. Such a system measures the performance of an organisation by comparing this with set targets. It can thus assist managers in the planning and control process, possibly leading to an organisation's performing at the expected level.

Raiborn and Kinney*.* (2013:554) argue that a performance measurement system should be designed to encourage behaviours that will result in outcomes that lead to organisational success. While performance measures serve to assess organisational performance, they may also motivate managers and foster growth within the organisation. It can therefore be concluded that for an organisation to achieve the desired profit, sustainability, and growth, a performance measurement system should be implemented.

One such performance measurement system that organisations could implement as a way of improving profitability, customer satisfaction, productivity, reliability and employee satisfaction, is the BSC. Should the BSC be implemented successfully, the organisation may improve its decision-making process, leading to improved financial performance and sustainability. For the purposes of continuous improvement, an organisation may also need to apply benchmarking.

Benchmarking can be a useful tool to identify competitive advantages and performance gaps. This approach may be used to gather information and compare it within the organisation for continuous improvement and sustainability purposes.

The review of the literature has explained the Management Accounting tools that can assist an organisation in making decisions. The review provided guidelines on principles that can improve the sustainability and performance of organisations. Providing sustainable information for decision-making on the performance of the organisation can be made possible by the effective implementation of Management Accounting tools.

In the following chapter Management Accounting tools that can provide a strategy for continual improvement of decision-making and continuous financial performance of the organisation are discussed.

CHAPTER FOUR: MANAGEMENT ACCOUNTING TOOLS THAT GUIDE DECISION-MAKING, SUSTAINABILITY AND FINANCIAL PERFORMANCE OF AN ORGANISATION

4.1 INTRODUCTION

This chapter reviews articles, textbooks, and websites on Management Accounting tools that provide guidance on strategies used by an organisation to make decisions that improve sustainable financial performance. An organisation may need direction and plans for it to succeed in the competitive environment in which it operates.

Correia *et al.* (2008:14) define strategy as the direction that an organisation takes in order to achieve its mission and objectives. They add that when an organisation formulates a strategy, it can include major decisions such as:

- What type of business will an organisation operate?
- How will an organisation compete?
- What system and structures should an organisation have in place to support strategy?

An organisation can use Management Accounting tools to direct and guide the formulation and implementation of strategy; an organisation that has an effective strategy may create value for shareholders and improve its profits.

Norton and Hughes (2009:4) believe that strategy has five common themes:

- Purpose and long-term direction of an organisation
- Meeting challenges from the organisation’s external environment
- Scope of an organisation’s activities
- Using an organisation’s internal resources and competencies effectively
- Delivering value to the people who depend on the organisation.

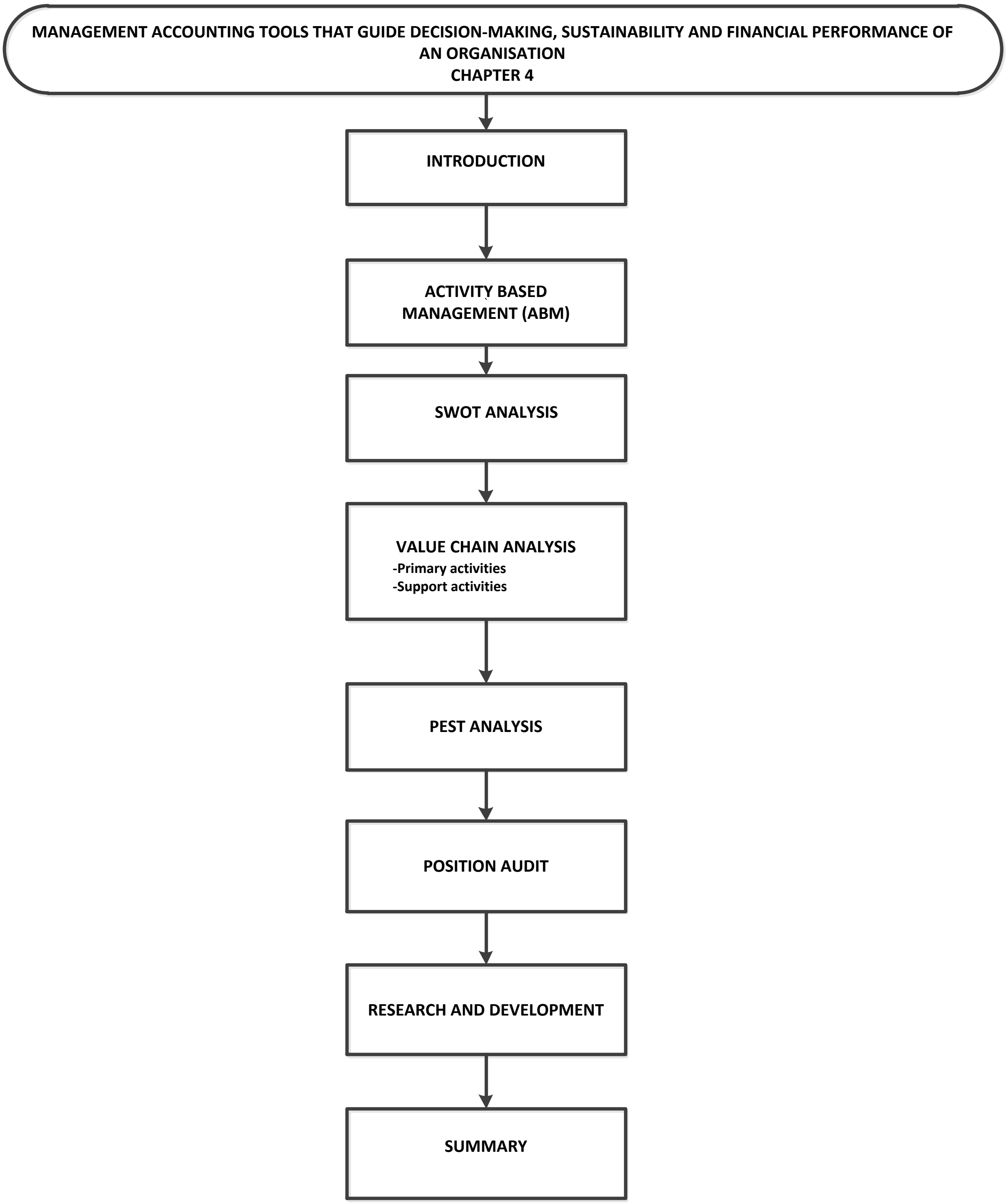
An organisation’s strategy may be concerned with decision-making and the future direction of the organisation as well as competitive advantage. If strategies are successfully implemented an organisation may achieve its set goals and objectives.

Section 4.2 presents ABM and SWOT analysis is discussed in Section 4.3. Value chain analysis is discussed in Section 4.4 and PEST analysis in Section 4.5. Position audit is covered in Section 4.6 and research and development in Section 4.7. A summary concludes the chapter in Section 4.8.

4.1.1 Visual layout of Chapter 4

Figure 4.1 illustrates the layout of Chapter 4.

Figure 4.1: Layout of Chapter 4



4.2 ACTIVITY BASED MANAGEMENT (ABM)

CIMA (2009:202) defines ABM as a system that uses information that is provided by an ABC analysis that helps managers to use the minimum of organisational resources to satisfy their customers' needs. It is explained further as a system that uses ABC information for a variety of purposes, such as cost modelling, customer profitability analysis and cost reduction. CIMA (2009) outlines three main benefits of ABM:

- **Cost management activities:** Managing the flow of processes in order to eliminate duplication and achieve cost saving.
- **Costing objects other than products:** Costs accumulated by activities which are expressed in the form of activity cost drivers.
- **Strategic activity management:** Individual activities are part of a wider process.

ABM can benefit an organisation as costs are managed effectively and assigned to all objects; ABM also assists in the formulation of an organisation's strategy regarding cost minimisation and profit maximisation.

Correia *et al.* (2008:714) argue that ABM offers any organisation the opportunity to improve customer value and to manage costs better. ABM can be used to manage costs as well as other sources of customer value, and a reduction in costs may involve the following four steps (Correia *et al.* (2008:714):

- Identifying crucial opportunities for cost reduction
- Determining the real causes of these costs
- Developing a programme to remove the causes
- Introducing some new performance measures to monitor the effectiveness of cost reduction efforts.

ABM therefore plays an integral part in an organisation by reducing and eliminating costs, thereby improving the financial performance of the organisation. Organisations today may be operating in a competitive environment and may therefore need to use ABM and ABC to improve financial performance and to remain competitive.

Guan *et al.* (2009:430) argue that ABM is a system wide, integrated approach that focuses management's attention on activities with the intention of improving customer value and profit. They also argue that ABM can be viewed as an information system that has the broad objectives of:

- Providing accurate cost information to improve decision-making
- Encouraging continuous improvement efforts to reduce costs

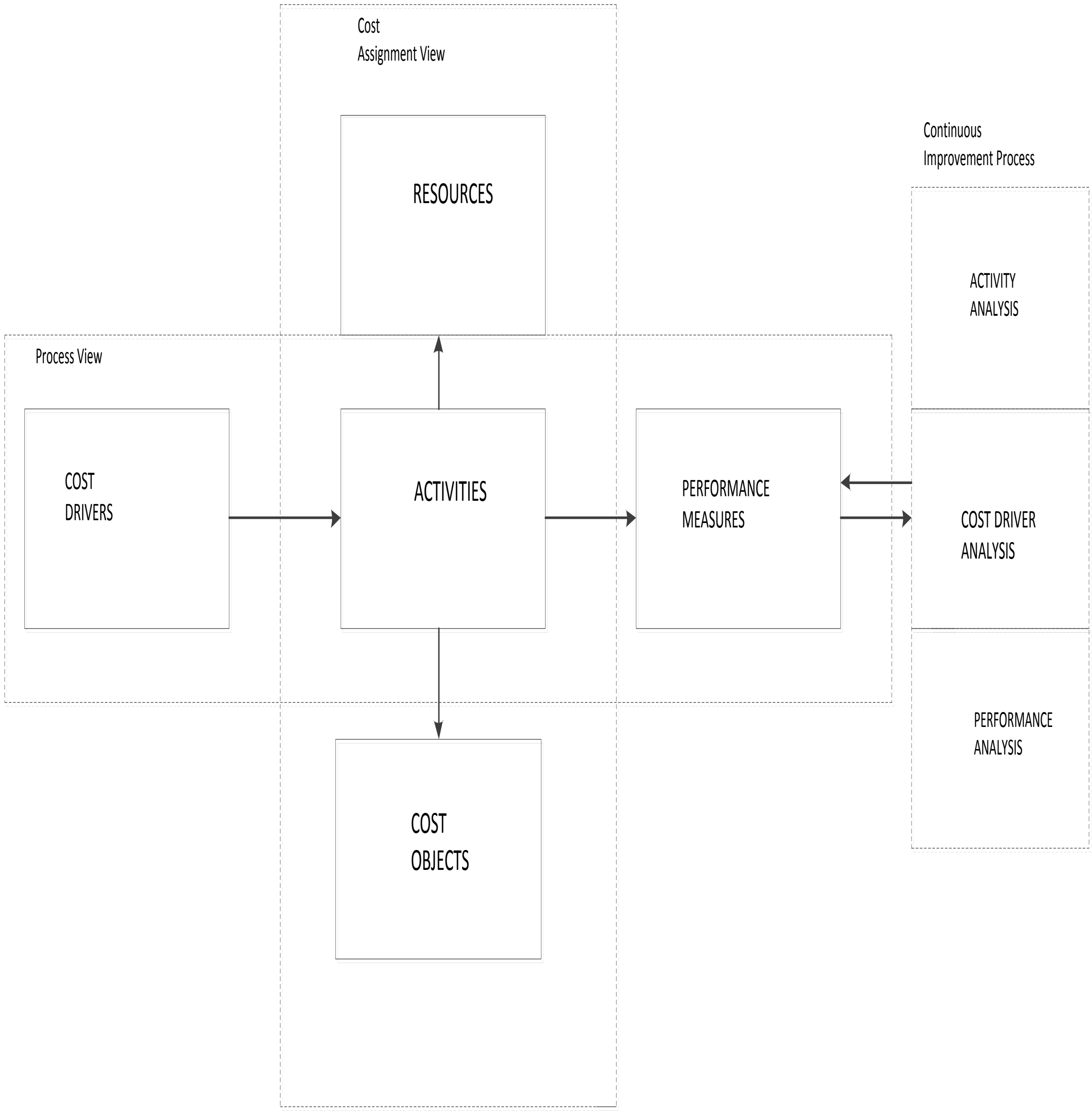
Organisations that implement ABM may improve profitability, increase opportunities and the decision-making process, leading to continuous improvement and sustainability. Hence ABM may be used to support the organisation’s strategy and operations and to manage activities by eliminating non-value-adding activities and costs. In addition, management may add value to the organisation by using ABM as a means towards continuous improvement.

Cardos and Pete (2011:159) assert that there are five basic information outputs for organisations that are designing and executing ABM:

- Information about the business processes and cost of activities should be relevant.
- Non-value-added activities costs – improvement are made in order to determine activities that do not add customer value or the organisation’s requirements.
- Performance measures of activity based management – this is to review how well improvement efforts are working and to provide scorecards.
- Accurate product and service cost information – this is important for choosing the segmented markets where an organisation competes.
- Cost drivers – in order to determine factors that can generate or create changes in the cost of an activity.

Therefore ABM is a useful tool in providing accurate and relevant information that could be important to an organisation’s processes. This is confirmed in Figure 4.2:

Figure 4.2: Outputs of the ABM model



Source: *Adapted: CIMA (2001:4)*

Based on Figure 4.2, it is clear that using ABM alters the demand for activities to increase financial performance, encompasses decisions about product design and development where the biggest opportunities for cost reduction exist, and improves relationships with suppliers and customers (Cardos & Pete, 2011:159).

The combination of these aspects may assist managers of an organisation in saving costs and increasing value for customers by focusing on activities that add value, on key customers and products, which in turn may increase the productivity and financial performance of the organisation. Organisations may benefit as management accountants can use ABM for strategic decisions that help in the identification of whether a certain activity can be continued, the effect of the cost structure and also changes in activities (IMA 1998:4). Furthermore, ABM allows customer needs to be satisfied using fewer resources (Colson 2002). ABM may therefore be a very useful tool in increasing profitability, effectiveness, and financial performance of an organisation.

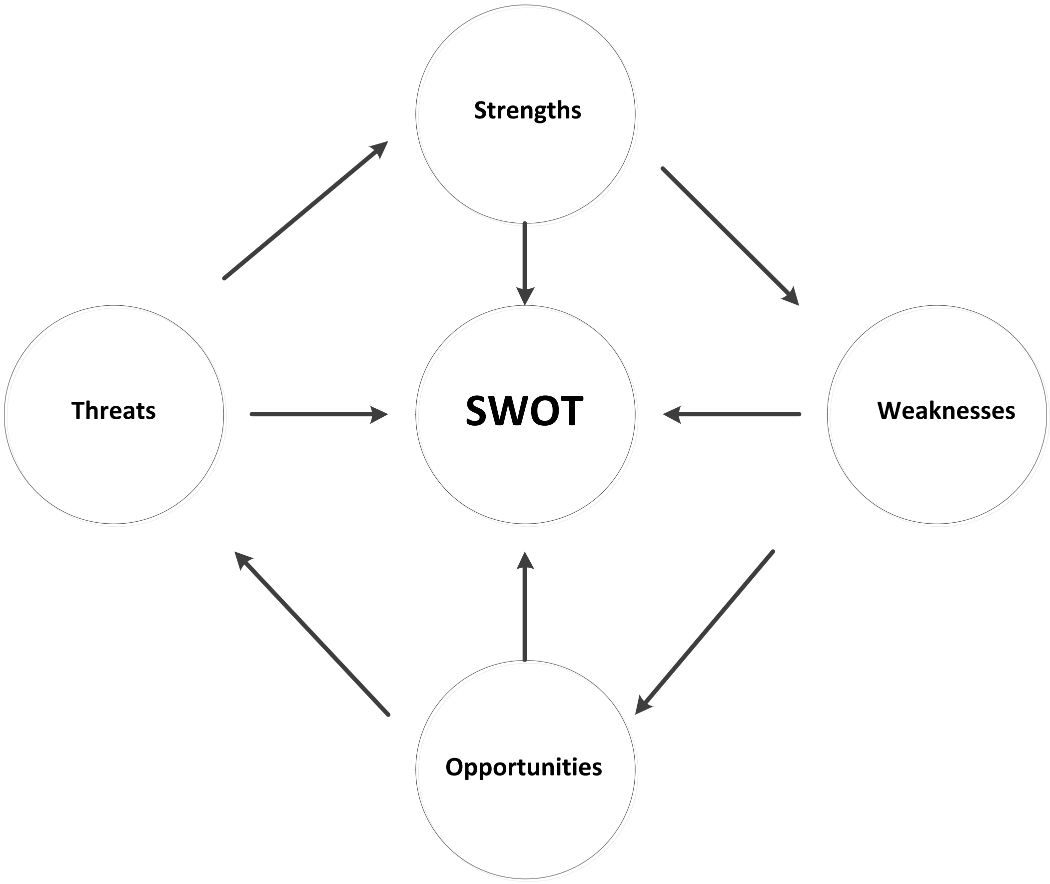
4.3 SWOT ANALYSIS

SWOT stands for Strength, Weaknesses, Opportunities, and Threats. This can be explained as (Quast 2013):

- **Strengths:** what an organisation is good at; this can include what it possesses, such as competitive advantage, skilled employees, and its competencies.
- **Weaknesses:** what an organisation lacks; this can include resources or skilled personnel.
- **Opportunities:** what an organisation can gain from the external environment in order to increase its objectives.
- **Threats:** what an organisation fears could be detrimental to its operations.

Using these points, a Management Accounting tool such as SWOT analysis can play an integral part in formulating an organisation's strategy as well as in improving the effectiveness and efficiency of organisational processes. This is clearly indicated by Figure 4.3:

Figure 4.3: Links of SWOT analysis



Source: *Adapted from dreamstime (2014)*

Figure 4.3 indicates how strengths, weaknesses, opportunities and threats are linked within the cycle of SWOT analysis.

Manktelow and Carlson (2013) view a SWOT analysis as a powerful Management Accounting tool that can assist an organisation in uncovering opportunities and also in understanding its weaknesses and eliminating any threats. These authors argue that an organisation can use the questions indicated in Table 4.1 to evaluate SWOT effectively.

Table 4.1: Questions for evaluating SWOT

Item	Questions
Strengths	What benefits does the organisation have? What does the organisation do better than others? What distinctive or lowest-cost resources can an organisation draw upon that others can't? What do people in the market place see as an organisation's strengths? What factors mean that an organisation "gets the sale"? What is the organisation's unique Selling Proposition?
Weaknesses	What could an organisation improve? What should an organisation avoid? What are people in the marketplace likely to see as weakness? What factors result in lost sales?
Opportunities	What good opportunities can an organisation spot? What interesting trends is the organisation aware of?
Threats	What challenges does the organisation face? What are the organisation's competitors doing? Are quality standards for products or services changing? Is changing technology threatening the organisation's position? Does the organisation have bad debt or cash-flow problems? Could any one of the weaknesses seriously threaten the organisation?

Source: *Adapted from Manktelow and Carlson (2013)*

If an organisation successfully implements a SWOT analysis during a feasibility study, this can assist it in developing a strategy and a future vision. This may enable the organisation to improve its sustainability and decision-making processes, which may in turn lead to organisational growth.

Norton and Hughes (2009:219) view SWOT as an analytical tool that can be used in two ways:

- It can be used to identify strategies required by an organisation.
- It can be used to assist in project selection.

In this way, the application of a SWOT analysis may be able to provide sustainability information to improve decisions on the selection of projects or business that an organisation can embark on. This may enable an organisation to apply strategies that are relevant to the environment it operates in, which as a result of the appropriate strategies applied, may in turn improve the financial performance of the organisation.

Hosseini-Nasab, Hosseini-Nasab and Milani (2011) argue that if an organisation wishes to deal with challenges and to improve the accuracy of its decision-making process, a straightforward SWOT analysis should be conducted and demonstrated by analysing strengths, weaknesses, opportunities and threats. The organisation can then develop and implement strategies that will meet its needs based, on the SWOT analysis.

The current organisational environment comprises daily changes in decisional trends and it is important to use tools such as SWOT analysis to support management decisions (Briciu, Căpuşneanu & Topor 2012:146). Management accountants can use a SWOT analysis to clarify information and in this way improve the financial performance and decision-making processes as well as the strategic mission of the organisation.

Simoneaux and Stroud (2011:76) observe that a SWOT analysis is an important aspect of an organisation's strategic planning and should be performed together with its business plan. These authors believe that a SWOT analysis is an essential instrument for managing change, strategic decisions and the setting of realistic objectives and goals for an organisation. A SWOT analysis may be critical to an organisation's making sound decisions and setting goals that align with the environment and the needs of the organisation.

In the following section value chain analysis is explained.

4.4 VALUE CHAIN ANALYSIS

A value chain identifies the upstream and downstream processes of an organisation that lead to cost leadership and product differentiation (Raiborn *et al.* 2013:9). There are seven functions of a value chain:

- **Research and Development**: Innovation to reduce costs and improve quality

- **Design:** Producing or developing alternative products
- **Supply:** Raw materials received from supplier management
- **Production:** Acquiring resources to render services or manufacture products
- **Marketing:** Promoting services to current customers
- **Distribution:** Rendering services to customers
- **Customer service:** After sale service (Raiborn *et al.* 2013:9).

An organisation may use Management Accounting tools such as the value chain to add value to functions and processes within an organisation, which could lead to improved financial performance.

Kaplinsky and Morris (2002:4) define the value chain as the full variety of activities that are needed to lead a product or service from creation, through the different stages of production (involving a mix of physical transformation and the input of diverse producer), distribution to final consumers, and final disposal after use. They argue that in the real world, value chains are much more complex than appears theoretically. Although the value chain can be complex in the real world, it is possible that it could be used to assist organisations in aligning activities in the right order or chain to avoid complexities.

Simister (2011) argues that there are several advantages and disadvantages to value chain analysis. These are listed in Table 4.2:

Table 4.2: Advantages and disadvantages of value chain

Advantages of the value chain	Disadvantages of the value chain
One of the important advantages is that the value chain is a very adaptable strategy instrument for looking at organisations, rivals and the other places in the industry's value system.	Value chain's strength of flexibility means that a particular organisation can adapt it, which may result in disadvantages as it not a simple process to achieve the best outcome from the value chain process.
In the case of both cost and differentiation, the value chain can be utilised to identify and create competitive advantages.	Value chain is strongly aligned to a manufacturing organisation and the language can be off-putting for other types of business.
Comparing the organisation model with rivals using the value chain can provide a deeper understanding of strengths and weaknesses to be included in SWOT	The value chain analysis scale and its range can be intimidating. it can take a great deal of work to finish value chain analysis of an organisation.

Advantages of the value chain	Disadvantages of the value chain
analysis.	
Over the last 20 to 25 years, the value chain has become well known and has been a centrepiece of strategy teaching in business schools.	There are many people who are aware of the value chain but only a few are masters in its use.
Value chain can be modified for use with any kind of organisation.	Value chain can make some of the ideas difficult to grasp and knowing how things fit together in the Internet age can be difficult.
The value chain has developed into an extra model: the organisation's value chain that allows one to form a better understanding of the much wider rival sector.	The value chain proposition has been embraced by supply chain and operations experts and in this way its strategic effect on understanding, analysing and creating competitive advantage has been reduced.
Value chain assists in an increased awareness of organisational matters concerning the commitment to creating customer value as it focuses attention on the activities required to fulfil the value proposition.	Business information systems are frequently structured in a way that makes it difficult to extract information for value chain analysis.

Source: *Simister (2011)*

Table 4.2 reflects the advantages and disadvantages of the value chain. Organisations can use this tool to their advantage by converting the disadvantages to opportunities and by focusing more attention on the benefits.

Porter developed the value chain to determine whether and how an organisation's activities contribute towards its competitive advantage (CIMA 2012:177). Organisations use the value chain approach to improve their understanding of which sections, distribution channels, price points, product differentiations, selling propositions and value chain configurations will provide them with the greatest competitive advantage. Furthermore, the value chain helps organisations to evaluate their competitive advantage using the following types of analysis (IMA 1996:5):

- **internal cost analysis** – to establish the origin of profitability and the relative cost positions of internal value-creating processes
- **internal differentiation analysis** – to be aware of the origin of differentiation (including the cost) within internal value-creating processes

- **vertical linkage analysis** – to be aware of the relationships between external suppliers and customers and the associated costs in order to maximise the value delivered to customers and to minimise cost.

These points indicate that organisations can begin by focusing on their internal operations and gradually broadening their focus to consider their competitive position within their organisation. Furthermore, Riley (b) (2012) describes the value chain analysis as including activities that happen in an organisation and connects them to an analysis of the competitive strength of an organisation. He therefore arranges activities into two groups, namely primary and support activities.

4.4.1 Primary activities

These are directly concerned with creating and delivering products or services:

- **Inbound logistics:** These are activities that are responsible for collecting and storing externally sourced materials.
- **Operations:** The manufacturing of products or services.
- **Outbound logistics:** These are activities related to acquiring finished goods and providing services to buyers.
- **Marketing and sales:** This refers to important information about activities made available to buyers and consumers.
- **Service:** These are activities responsible for maintaining product performance.

Organisations can benefit by using primary activities effectively as these may assist in improving service/product delivery and also strengthening their competitive advantage.

4.4.2 Support Activities

These are not directly involved in production but may increase efficiency and effectiveness:

- **Procurement:** These are responsible for the way resources are received within the organisation.
- **Human resources management:** These are responsible for recruiting, developing and rewarding the workforce.

- **Technology development:** These are responsible for managing information processing, development and protection of information in an organisation.
- **Infrastructure:** These are responsible for a broader range of support systems and functions such as finance.

Organisations may use the supporting activities of the value chain as they increase effectiveness, which could result in the successful operation of activities.

Furthermore, IMA (1996:4) states that value chain analysis is a team effort and management accountants need to cooperate with production, engineering, distribution, marketing and service professionals in order to focus on the strengths, weaknesses, opportunities and threats identified in the value chain analysis outcome, In supporting the use of the value chain analysis, the management accountant improves the organisation's value and demonstrates the value of finance staff to the organisation's growth and survival. Therefore, the value chain may play an important role in the sustainability and growth of the organisation.

The PEST analysis will be discussed in the next section.

4.5 PEST ANALYSIS

The PEST is one of the most popular techniques for the analysis of the macro environment (CIMA 2012:276). This analysis is used to assess external factors that may have an impact on the organisation's future development. Aspects of this analysis are categorised under four headings (ughes 2009):

- **Political:** Legal factors affecting an organisation
- **Economic:** Economic factors such as inflation, exchange rates and tax rates
- **Social:** Social, cultural and values and beliefs of people
- **Technological:** Technology changes

An organisation's strategy and performance may be impacted on directly or indirectly by these factors and therefore it may be useful for organisations to implement a PEST analysis in order to remain sustainable over time. Haughey (2011) confirms this by explaining the advantages of PEST:

- It is a simple process that only costs time to perform.
- It provides an awareness of the broader organisational environment.
- It motivates the development of strategic thinking.

- It increases awareness of threats to a project.
- It can assist an organisation to anticipate future challenges and implement strategies to avoid or minimise their effect.
- It can assist an organisation in identifying opportunities and exploiting them.

The PEST analysis may provide organisations with the necessary understanding of the environment to assist them in determining new opportunities that could benefit financial performance in return. Haughey (2011) argues, however, that PEST also has limitations, as listed below:

- It is not importantly presented although is a simple list.
- The fast pace of change in society makes it increasingly challenging to expect developments that may affect an organisation in the future.
- Gathering large amounts of information may make it difficult to see the wood for the trees and may lead to "paralysis by analysis".
- The analysis may be based on assumptions that prove to be unfounded.
- PEST analysis covers only the external environment and the outcomes need to be observed in the context of other factors, such as the organisation itself, its rivals and the industry in which it is working.

These limitations may guide an organisation on to conduct a PEST analysis, thereby avoiding factors that may be detrimental to the conduct of PEST analysis. Brooks (2013) provides an example of how a PEST analysis can be conducted in the restaurant business. He examined the various political, economic, social and technological factors that a potential restaurant owner needs to consider when entering the restaurant industry. This example is illustrated in Table 4.3.

Table 4.3: Example of how to conduct PEST analysis

Political factors	Economic factors	Social factors	Technological factors
State rules and policies in connection with hygiene, health and food regulations, food standards, etc.	Rate of interest could affect the cost of capital, the rate of interest being directly proportionate to the cost of capital.	Marketing decisions will be affected by people in a chosen business environment's habits of eating.	Better production and procurement and distribution logistics could lead to reduced wastage and lower costs as a result of good technical infrastructure.
State policies of economy regarding the restaurant business industry and running of a business; these could include inspections by Health and Food Ministry departments, etc.	Inflation rate controls rewards, rate of employees and directly affects the price of the restaurant's products.	Proportion of people choosing to eat out regularly.	More effective and efficient business marketing and also good presentation as well as technological innovation could be the result of sound technology.
	Trends of economy behave as a measure of the sustenance and profitability of business in the chosen region and assist in deciding marketing strategy		

Source: *Brooks (2013)*

The example above may provide an indication of how a PEST analysis can be conducted.

In the view of Yüksel (2012:52), PEST provides a general idea of an organisation's situation and its macro environmental conditions. He observes that an organisation comprises both the internal and the external environment, where the internal environment involves resources and capabilities of an organisation while the external environment encompasses factors beyond an organisation's control. However, a PEST analysis may provide information relevant to the macro environment that could prove useful to an organisation's strategic planning.

A PEST analysis is a simple and widely used tool that assists an organisation to understand the bigger picture of forces of change and, as a result, allows them to take advantage of opportunities that present themselves (Manktelow & Carlson 2013). Manktelow and Carlson (2013) believe that PEST is useful for four reasons:

- It assists an organisation in identifying opportunities and gives advanced warning of significant threats.
- It reveals the direction of change and assists in shaping what an organisation is doing.
- It helps an organisation to avoid starting projects that are likely to fail.
- It can assist an organisation in breaking free from unconscious assumptions when it enters a new market or country.

Organisations may thus reap benefits from using a PEST analysis as allows them to identify opportunities and threats that could have an impact on the financial performance of the organisation, in either a positive or a negative way.

The PEST analysis may help an organisation to make informed decisions before implementing or starting a new business. An organisation can use PEST to brainstorm changes, opportunities, threats and also as a guide to the direction it should take (Manktelow & Carlson 2013).

Management Accounting principles such as PEST may assist an organisation in better understanding the political, economic, social and technological changes, in this way assisting the organisation in avoiding risks and gaining a competitive advantage. This will have an impact on decision-making, sustainability, and financial performance.

In the next section the position audit is discussed.

4.6 POSITION AUDIT

The position audit can be viewed as a systematic assessment of the strengths and weaknesses of an organisation, and as an essential part of strategic planning and implementation (Acorn 2013). Management accountants can use the position audit to provide the management of an organisation with information that will assist them in their strategic plans by providing an idea of the real state of the organisation.

Lees (2008:8) defines a position audit as part of the planning process that analyses the current state of the organisation in respect of: resources of tangible and intangible assets and finance; products, brands and markets; operating systems such as production and distribution; internal organisation; current outcomes; and shareholders returns. A position audit can be useful within an organisation as its current state is examined in order to align operations with strategy so that the organisation can remain profitable and sustainable in future. A position audit can be used to assess weaknesses and strengths of an organisation, helping to eliminate those inefficient activities and promote organisational strength.

4.7 RESEARCH AND DEVELOPMENT

Raiborn and Kinney (2013:9) view research and development as experiments conducted to minimise costs and improve quality. For the purpose of this study the same principle will apply. Therefore an organisation may benefit by implementing research and development as new ideas and experiments may be developed that may benefit the organisation in the future.

Mbeki (2002:3) argues that the necessary resources should be committed to technological research and development, and innovation should be encouraged among people to ensure that new developments are introduced into productive activities. In order to obtain maximum results from any research and development that an organisation embarks on, this should be accompanied by the necessary resources.

Consequently, Minogue (2013:3) believes that research and development is fundamental to creating an evidence-based decision-making culture and it forms part of the day to day operations. She argues that research, development and innovation are some of the devices used to achieve better outcomes for an organisation.

Therefore, for an organisation to remain competitive and current it must constantly conduct research and develop all areas within its sphere.

4.8 SUMMARY

By using Management Accounting tools, an organisation may be able to make effective decisions about business operations and markets in which it needs to operate. This may enhance its financial performance and provide the organisation with a platform to strengthen its competitive advantage. With the tools such as ABM, SWOT, PEST and value chain, an organisation can design and implement a strategy that results in profit maximisation and shareholder value creation.

ABM can benefit an organisation as costs are managed effectively and assigned to all objects. It is also useful in formulating an organisation's strategy towards cost minimisation and profit maximisation. Consequently, ABM may play a vital role in an organisation by reducing and even eliminating costs, thereby improving its financial performance. Today organisations are operating in a competitive environment where ABM can improve financial performance, ensuring that they remain competitive.

ABM may also be used to support the organisation's strategy and operations and to manage activities by eliminating non-value-adding activities and costs. In addition, it is possible that management can add value in the organisation by using ABM as a means towards continuous improvement.

Therefore, organisations implementing ABM may increase profitability and opportunities and improve the decision-making processes that lead to continuous improvement and sustainability. ABM may therefore prove to be a very useful factor in increasing an organisation's profitability, effectiveness and financial performance.

In the same way, SWOT analysis can play an integral part in formulating an organisation's strategy as well as in improving the effectiveness and efficiency of its processes. If an organisation implements a SWOT analysis successfully during a feasibility study this can assist an organisation in developing a strategy and a future vision. This may enable the organisation to improve its sustainability and decision-making processes, which may in turn lead to organisational growth. Applying correct strategies for the environment the organisation operates in, based on the SWOT analysis, can also improve its financial performance.

Management accountants may use a SWOT analysis to clarify information that can be used to improve the financial performance and decision processes as well as the strategic mission of an organisation. Therefore a SWOT analysis may be a critical factor in an organisation's making sound decisions and in its setting of goals that align with the environment and the needs of the organisation.

In addition, an organisation may use Management Accounting tools such as the value chain to add value to functions and processes within it, which could lead to improved financial performance. Although the value chain can be complex in the real world, it is useful in helping organisations to arrange activities in the right order or chain to avoid complexities. Therefore the value chain may also play an important role in an organisation's sustainability and growth.

PEST analysis may provide organisations with the necessary understanding of the environment and assist them in identifying new opportunities that may benefit financial performance in return. PEST analysis can also provide pertinent information regarding the macro environment that an organisation can employ in strategic planning. Organisations may reap the necessary rewards by using a PEST analysis as it is possible that opportunities and threats, that may have a positive or a detrimental effect on the financial performance of the organisation, can be identified.

Management Accounting principles such as PEST may assist an organisation in better understanding the political, economic, social and technological changes that could direct the organisation in avoiding risks and gaining a competitive advantage, resulting in a positive impact on decision-making, sustainability and financial performance.

Management accountants can also use a position audit to provide the management of an organisation with information to assist them in their strategic plans; this audit also provides a view of the real state of the organisation. A position audit may be useful as the current state of the organisation is examined in order to align operations with strategy to ensure that it remains profitable and sustainable in the future. A position audit assesses weaknesses and strengths of an organisation, helping to eliminate those activities that are inefficient and to promote organisational strength.

Finally, an organisation may benefit by implementing research and development as new ideas and experiments can be developed to benefit it in the long term. In order to obtain maximum results from any research and development that an organisation embarks on, this should be accompanied by the necessary resources. If an organisation is to remain competitive and up to standard it should constantly conduct research and develop all areas within its spheres.

The next chapter will discuss the methodology employed in the study.

CHAPTER FIVE: RESEARCH METHODOLOGY

5.1 INTRODUCTION

Chapter 5 comprises a discussion of the methodology followed in the study and the methods used to collect data. The data was analysed to address the role of Management Accounting in the provision of sustainability information for decision-making and its influence on financial performance.

The aim of the study was to:

Assess the extent to which Management Accounting tools provide sustainability information for decision-making and its influence on the financial performance of an organisation. The study had the following objectives:

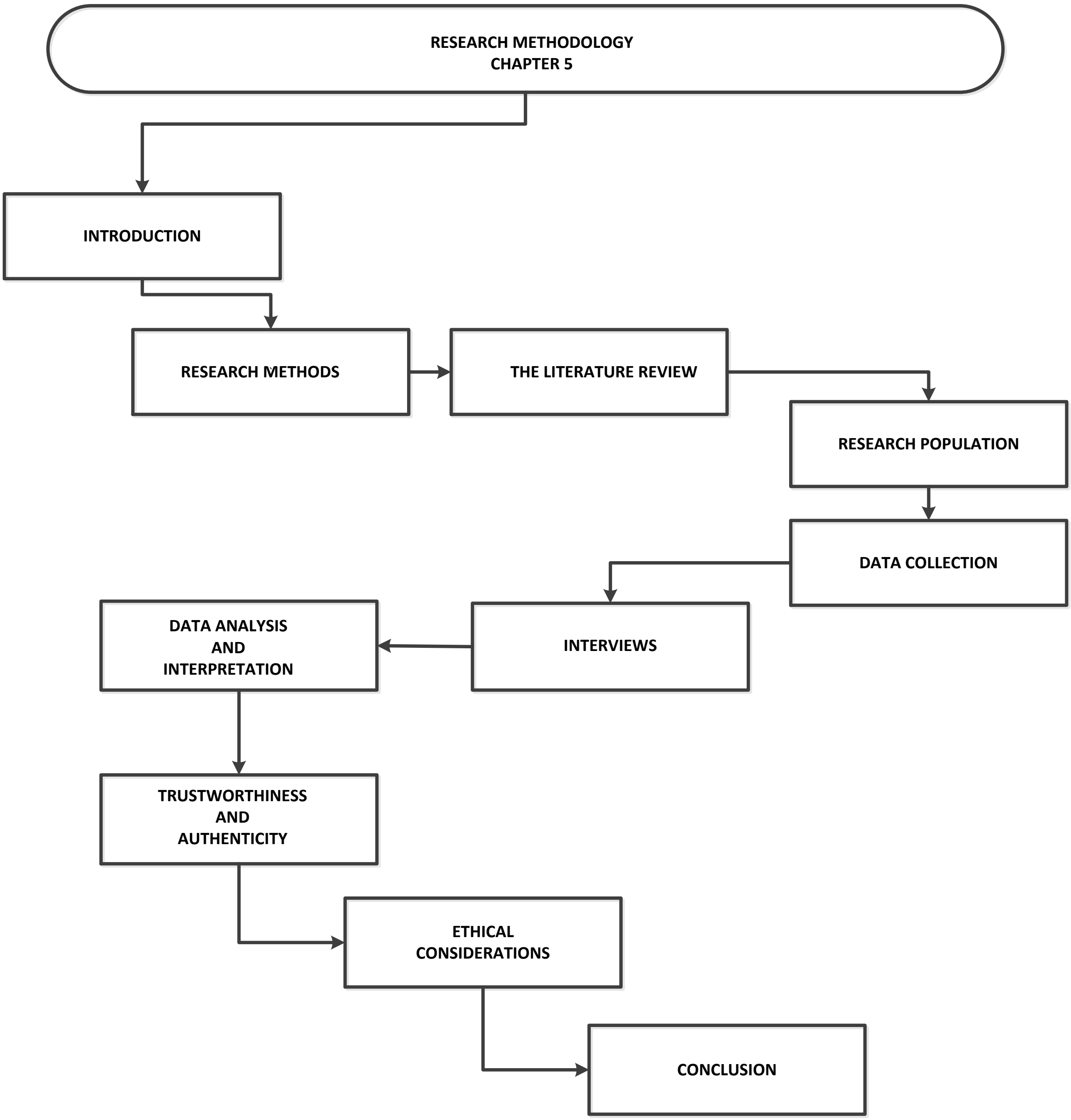
- The role of Management Accounting tools such as the BSC, benchmarking and ABC in providing sustainability information that can influence financial performance.
- Whether the sustainability information generated by tools such as the BSC, benchmarking and ABC improves the financial performance of organisations.
- The extent to which sustainability information influences decision-making in the organisation.

In Section 5.2 the research methods are discussed, while the literature review is outlined in Section 5.3 and the research population in Section 5.4. Section 5.5 describes the data collection and Section 5.6 provides an outline of the interviews. In Section 5.7 the data analysis and interpretation are described. Section 5.8 covers reliability and validity and in Section 5.9 ethical considerations are discussed. Section 5.10 concludes the chapter.

5.2 Visual layout of Chapter 5

The layout of Chapter 5 is displayed in Figure 5.1.

Figure 5.1: Layout of Chapter 5



5.3 RESEARCH METHODS

Ryan, Scapens and Theobold (2002:7) define research as a process of intellectual discovery, which has the ability to change knowledge, understanding and the perceptions of an organisation around us. They believe that there are three questions that influence research:

- What are the different assumptions regarding the nature of research?
- What is the role of theory in acquiring knowledge?
- How does the research progress?

Research is useful for producing information about a particular case and also for gaining an understanding of the reasons and motivation of the study. The role of Management Accounting in the provision of sustainability information for decision-making and the influence of this information on the financial performance of an organisation is based on facts, scholars' ideas, the analysis of information and the examination of different points of view.

Hence it is important to establish that particular set of methodological principles that appears to form the dominant view of how research should be conducted in the accounting field, since methodology is implicit rather than explicit within the writing of scholars in this area, and criticism and historical analysis of the literature of any discipline is an important component of research (Ryan *et al*., 2002:27). Ryan *et al*. (2002:27) mention five points, listed below, that can be regarded as the cornerstones of the outcome of the study as it is qualitative in nature:

- Gaining an understanding of the reasons and motivations behind the study.
- Providing insights into generating ideas and hypotheses that may benefit organisations.
- Uncovering prevalent trends in thought and opinion.
- Measuring the incidence of various views and opinions in the chosen sample.

These points assisted this researcher in meeting the goals and objectives of the study. Information was collected using interviews. The study has outlined both descriptive and explanatory research and the evidence also bears on alternative rival explanations. In the following section, the literature review is outlined.

5.4 THE LITERATURE REVIEW

The literature reviewed for this study included information that was publicly available such as library books, subject-specific websites and scholarly journals, which guided and provided more information for the study.

Rallis and Rossman (2012:102) argue that literature reviews are conversations that one enters into with:

- Scholarly traditions
- Recognised experts
- Empirical research
- Experience and professional wisdom.

The literature review should:

- Reveal underlying assumptions behind research questions
- Demonstrate that the researcher is knowledgeable about research traditions appropriate for the discipline and topic
- Identify gaps and
- Provide the logical groundwork for articulating and refining research questions.

These points guided the study and the literature consulted pertains to the topic. The literature review conducted for the purpose of this study was discussed in Chapters 2, 3 and 4, Sources were collected from:

- UNISA library
- Emerald Business Management and Economics eBook series collection
- Google Books
- CIMA websites

The literature review examined the theories relevant to Management Accounting tools in the provision of sustainability information for decision-making and the influence of this information on the financial performance of an organisation.

The research population will be discussed in the next section.

5.5 RESEARCH POPULATION

Heppner and Heppner (2004:110) define a population as organisations, students, employees, or objects of the study. The target population in this study comprised 400 South African organisations listed on the Johannesburg stock exchange (JSE 2013). These organisations were selected by numbering each organisation and drawing 25 numbers, the first 15 of which were approached first.

Table 5.1: Organisations and participants

Organisations	Participants
Mining	1 and 2
Pharmaceutical	3
Petrochemicals	4 and 5
Banking (Financial Institutions)	6 and 7

5.6 DATA COLLECTION

In order to address the research problem, both primary and secondary data sources were used. Heppner and Heppner (2004:376) argue that a number of problems may occur with data collection that can have an influence on the outcome of the study. These include fatigue preventing participants from responding accurately or carefully over time. For the purpose of this study, data collection involved the gathering of information that has been systematically observed, categorised, organised, recorded, or defined in a way similar to that of logical processing and inferences.

The study was conducted using semi-structured interviews and these were conducted in public places or participants' places of work. Interviews ranged from 14 to 35 minutes in length and they were recorded using a cell phone, with additional notes being taken by the researcher. These are discussed in the next section.

5.7 INTERVIEWS

Primary data was collected using semi-structured interviews. The interview questions were clear, concise and phrased in such a way as to invite respondents to participate. The goal was to include all the questions necessary for collecting the desired information without making the interview so lengthy that they became inconvenient for participants, as suggested by (Gideon 2012:300).

Rallis and Rossman (2012:128) define interviews as the process of asking people questions and eliciting detailed responses. Many forms of interviews exist, all involving conversations with the interview participants. Gideon (2012:110) argues that research interviews require preparation and cannot be conducted by just anyone. He regards interviews as one of the most common methods of data collection using direct interaction between the researcher and the subject, making it particularly relevant to this study.

Interviews may require personal sensitivity and adaptability as well as the ability to stay within the bounds of the design of the interview. In this study, the interview was used to gain a more accurate understanding of the research problem and to acquire the information needed to address the research question. An interview plan (Appendix B) was developed as a guide to be used in the semi-structured interviews. This plan contains three key focus categories, as indicated below, and each category has sub-questions which were used to derive information from participants:

- Management Accounting tools
- Improvement of the financial performance of an organisation
- Strategies that influence decision-making and performance.

The interview plan was designed with these categories in mind and the desired information was elicited.

5.8 DATA ANALYSIS AND INTERPRETATION

Heppner and Heppner (2004:228) view data analysis as a demonstration of a high degree of analysis and interpretation of results. The authors argue that if data analyses are conducted poorly or without sufficient competency, inaccurate information can become part of the knowledge base. This study employed qualitative methods in the analysis of the data.

For the purpose of achieving the objectives and of addressing the question of the role of Management Accounting in the provision of sustainable information for decision-making and its influence on the financial performance of an organisation the data were:

- Organised for the analysis
- Described
- Interpreted.

This allowed analyses and interpretations of the data that were relevant, effective and efficient for the study which may result in a strong impact on the sustainability of the organisation.

5.9 TRUSTWOTHINESS AND AUTHENTICITY

Shenton (2004:63) asserts that the concepts of validity and reliability cannot be addressed in the same way in naturalistic work and, as a result, trustworthiness of qualitative research is generally often questioned by positivists. He notes that four criteria are used in this regard:

- **Credibility:** investigators attempt to demonstrate that a true picture of the phenomenon under scrutiny is being presented.
- **Transferability:** investigators provide sufficient detail of the context of the fieldwork for a reader to be able to decide whether the prevailing environment is similar to another situation with which he or she is familiar and whether the findings can justifiably be applied to the other setting.
- **Dependability:** although researchers should at least strive to enable a future investigator to repeat the study, this criterion is difficult in qualitative work.
- **Confirmability:** researchers should take steps to demonstrate that findings emerge from the data and not their own predispositions.

For the purposes of this study, these four criteria were employed to ensure trustworthiness. Lincoln and Guba (1985) confirm that trustworthiness of a research study is important to evaluating its worth.

Mertens (2005) argues that authenticity has three criteria:

- **Fairness:** The researcher presents all value differences, views and conflicts.
- **Ontological authenticity:** An individual's conscious experience of the world becomes more informed and sophisticated.
- **Catalytic authenticity:** action is simulated by inquiry process.

For the purpose of this study, authenticity was achieved to ensure that the results were reliable and of good quality.

Prior to semi-structured interviews with participants, a pilot study was undertaken to make sure that interview questions were clear, unambiguous and understandable by participants. Two interviews were conducted to ensure that semi-structured questions were clear and understandable and could be answered within an acceptable time. Corrections and adjustments were made to interview questions before the final interviews were conducted. The pilot study also helped the researcher to ensure that the interview questions were understandable and unambiguous. Hence accuracy, consistency and validity of information were ensured through the pilot study. Control and a valid conclusion to the study were achieved. In the next section the ethical considerations are discussed.

5.10 ETHICAL CONSIDERATIONS

Ethical clearance was obtained from the ethics committee prior to conducting the interviews (Appendix E) and all participants were requested to participate in the study by means of a request for permission form (Appendix D). A consent form (Appendix C) was signed by each participant who agreed to participate in the study.

5.11 CONCLUSION

The chapter has described the research methodology employed in the study. The objective of the study was to examine whether Management Accounting tools could provide sustainability information for decision-making and its influence on the financial performance of an organisation. Semi-structured interviews were used to collect the data. In the following chapter the analysis of the data and findings of the study are presented.

CHAPTER SIX: DATA ANALYSIS AND FINDINGS

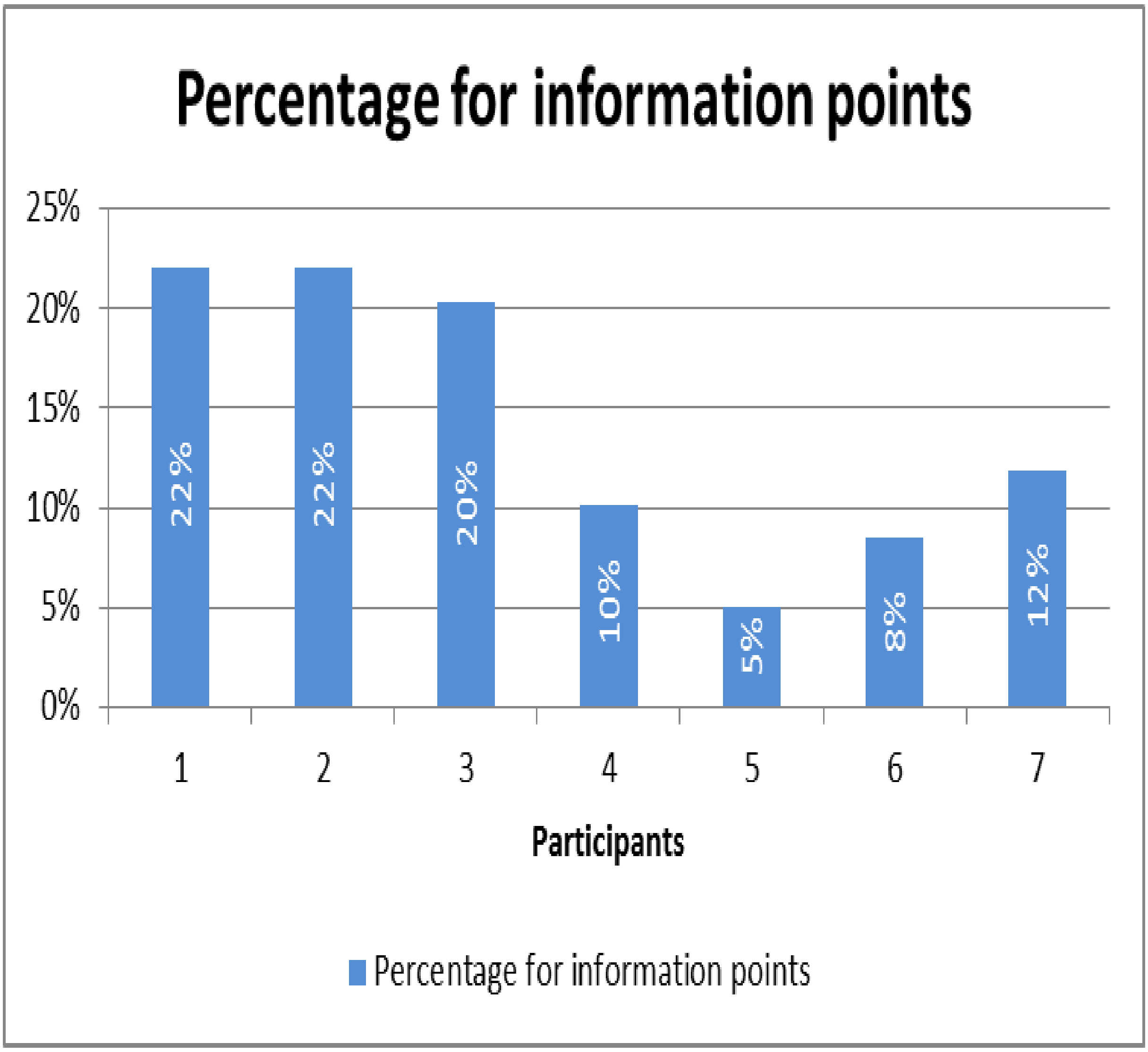
6.1 INTRODUCTION

This chapter presents the data analysis and findings of the study. The data were collected using interviews. The researcher depended mainly on semi-structured interviews to collect primary data. Interviews were held at the offices of participants or in conveniently located restaurants around South Africa. Interviews were between 14 and 35 minutes in duration.

Interviewing of participants took some time as many were concerned with meeting half-year end and year-end deadlines. Some were no longer interested in participating in the study as a result of their personal commitments. Nevertheless, information obtained from seven participants using semi-structured interviews was sufficient to reach data saturation. The National Centre for Research Methods (2014:1) confirms that there is no exact number required to reach data saturation; this depends on the responses as they offer guidance and direction on the epistemological, methodological, and practical issues that should be taken into account when conducting research projects. This includes advice on assessing research aims and objectives, validity within epistemic communities and available time and resources.

All participant information was computed to a percentage according to the contribution it made to the study and based on the usage of the information participants provided, its relevance, accuracy and correctness. Data saturation was reached during interview number three. Sixty-four percent of the information was collected by this point and only 36% of the information was collected from interview numbers four to seven. Therefore the researcher felt confident that, based on this analysis, the sample size was adequate. Figure 6.1 illustrates participants' information computed on a 100% basis.

Figure 6.1: Participants' information computed on a 100% basis



***Source**: Created by researcher (2014)*

The aim of this study was to assess the extent to which Management Accounting tools provide sustainability information for decision-making and its influence on the financial performance of an organisation. This research was expected to meet the objectives and ultimately state to what extent Management Accounting tools were applied by the organisations concerned:

- The role of Management Accounting tools such as the BSC, benchmarking and ABC in providing sustainability information that influences financial performance. [As discussed in Chapters 3 and 6].

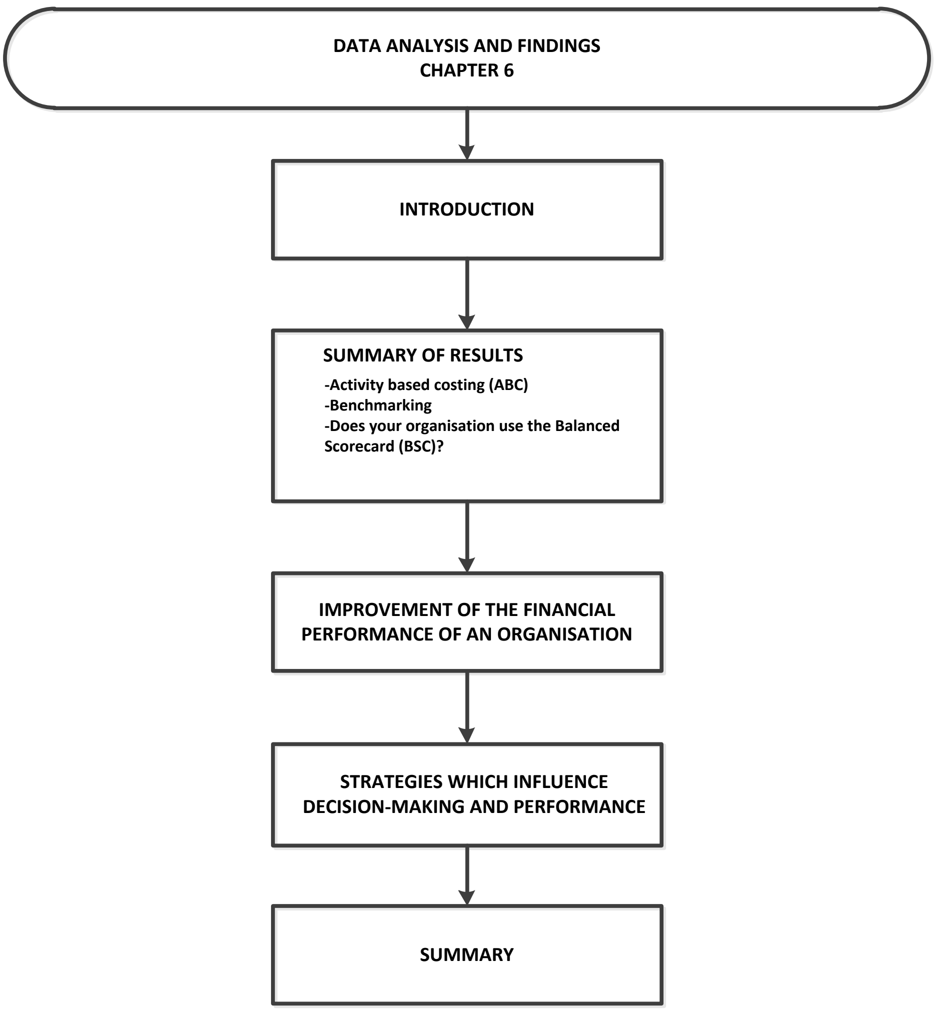
- Whether the sustainability information generated by tools such as the BSC, benchmarking and ABC improved the financial performance of organisations. [Discussed in Chapters 3 and 6].
- The extent to which sustainability information influences decision-making in the organisation. [Discussed in Chapters 2, 4 and 6].

Section 6.2 reports on Management Accounting tools; the improvement of financial performance of an organisation follows in Section 6.3. A report on strategies that influence decision-making and performance follows in Section 6.4. A summary concludes the chapter in Section 6.5.

6.1.1 Visual layout of Chapter 6

Figure 6.2 illustrates the layout of Chapter 6.

Figure 6.2: Layout of Chapter 6 and how it fits into the overall study



6.2 MANAGEMENT ACCOUNTING TOOLS

The objective of the research in this section was to examine the role of Management Accounting tools such as the BSC, benchmarking and ABC in providing sustainability information that influences financial performance. Twelve questions on Management Accounting tools were used to derive the required information.

The findings were obtained from various organisations in sectors such as mining, pharmaceuticals, petrochemicals and financial institutions. The larger the organisation, the more complex their activities tended to be. Based on the findings from the interviews, it emerged that, as a result of specialisation or the segregation of duties, many listed organisations had several departments dealing with different tasks.

Management Accounting tools were used by all the listed organisations interviewed; although a sample was selected it provided proof that the use of Management Accounting tools in any organisation today was very relevant and had a direct influence on the financial performance of the organisation. This is why many of JSE listed organisations have Management Accounting departments that are concerned only with Management Accounting duties and issues of relevance to the future sustainability of the organisation. The following questions were used to elicit information.

To what extent does your organisation use the following Management Accounting tool?

6.2.1 Activity based costing (ABC)

Participant [5] stated that, *"[The] management accountant must know what is happening in the business, the beginning and the end of the process, the impact to the next business unit, if any and to the whole company. The risks and benefits involved. This is an important aspect that [the] management accountant must have before getting involved in the financial running of the business but now it is done the other way round, management accountant is thrown into the business and gathers the knowledge by himself as he goes along and learns by mistakes."* Tg=his suggest that it is important for organisations to ensure that management accountants know the business thoroughly to ensure the smooth functioning of the organisation.

Participant [7] stated that "*We use an ABC system as we have certain traders who trade high yield instruments and we have certain services that are shared and we use ABC to allocate all costs involved."* This may confirm that ABC is being used by organisations as a source of cost allocation.

Although some organisations did not use ABC, they applied other Management Accounting tools which best fit the purpose and scope of their organisation. In some petrochemical organisations, ABC was applied in some segments but not in others as they focused more on labour costs. This was the result of the fact that Management Accounting is used for different purposes to generate different information that fits the segment in which it is used. This was established as the listed organisations that were interviewed were both large in terms of their operations and had offices all over South Africa.

Some mining companies did not use ABC as they mined coal or platinum, whereas their manufacturing departments did. Participant [1]: observed that they did not use ABC in detail but where coal was mined, the costs were divided by tons, determining the rand per ton, and the overhead costs were allocated based on a per ton basis. Hope and Player (2012:185) argue that ABC allows managers of organisations to understand the product and customer net profitability by providing better methods of attributing overheads. The accurate allocation of costs from the start of the process or operation may have a direct impact, either favourable or unfavourable, on the financial statements of the organisation.

Participant [3] responded that they had always had issues with information generated from factories as a result of the fact that management accounting responsibilities were in the hands of financial managers and accurate data were not provided. [3] *"Sometimes [it] is just a simple thing like [a] machine that is old that needs to be replaced which is costing the organisation, and if an organisation does not have a management accountant such problem can be identified very late."* Seal, Garrison and Noreen (2009:157) observe that activity base measures whatever causes the incurrence of variable cost. Most common activity bases are direct labour-hours, machine-hours, units produced and units sold; for organisations to arrange and control these costs, management accountants should be well aware of the various activity bases within the organisation. This suggests that management accountants are very important to an organisation. [3] "*In manufacturing there is lots* *of things that go wrong, there are operational people that have [a] different focus of producing not costing, the overall factory must be responsible for costs, the person who manufactures [the] products and the production managers must be accountable for costs as it affects the bottom line."* Seal *et.al.* (2009:278) confirm that "ABC must be the duty of [a] cross-functional team rather than of the management accounting department and the team must comprise representatives from each area that will use [the] information provided by [the] ABC system and this might include: marketing, production, engineering and top management as well as technically trained accounting staff and sometimes [an] outside consultant who specialises in ABC acts as an adviser to the team". ABC allows for costs to be accounted for within each department or factory unit and can in this way improve organisations' costing and financial performance.

Participant [2] responded that, "*definitely we use Management Accounting tools to look at operational performance of the organisation as well as managing costs. Although ABC is being used by the organisation it's not in a fully-fledged stage, it is part of a segment that looks only at the specific costs after the raw materials are converted into a product form through [the] manufacturing chain.*" By determining activities and recognising the costs of executing each activity, ABC systems consider a deeper level of detail in understanding how an organisation utilises its resources (Horngren, Bhimani, Datar & Foster 2002:337). Although ABC may not be fully exploited by organisations, the fact that it is used may indicate that management do see the value of accurate costing within their organisation.

Participant [5] observed that "*the convention starts with the input from a particular source, e.g. natural sources like coal or air from the atmosphere or products from other plants. It also indicates the transformation/conversion of that input, the cost involved and the allocation of costs from other areas like Financial, Info Management, Stores etc. These are called Leverage operations cost; they process material involved and finally show the output the end result of the conversion which may be the end product out for sale or the raw input to the next plant and start the convention of that particular plant. When all these conventions are combined they form the process flow of the organisation and the production cycle is complete. In simple terms, it is the cost of producing one unit/item per production cycle; in our organisation the unit of production is 1ton of pure gas produced. In the calculation* *the numerator is the net cash cost cash cost less cash income and the denominator is the tons of pure gas produced for that calculation period being a month, a series of months or a year. The calculated result will be an X-rand/ton."* This ABC represents a significant step forward from standard costing and it enables managers of organisations to see the true costs of products and services with more clarity and to set more appropriate prices. Time-driven ABC has also made the system easier to implement and use; although ABC has failed to challenge the mass-production, command-and-control view of management, it is still very relevant to finding better ways to allocate overheads (Hope & Player 2012:192). This highlights the benefits that ABC holds for the organisation if implemented correctly.

Tracking costs from raw materials such as platinum and metal from the ground emerged as very important from responses to the interviews, which indicated that a great deal of waste occurs during the chain process, leading to the indirect loss of sales or profit. The findings suggested that ABC may make it easier to track costs up to the final stages of product costing.

The participants indicated that organisations use an ABC system mainly as a form of cost management. Managing costs effectively and efficiently using an ABC system influences the financial performance of the organisation directly as ABC leads to improvement in cost control (Jiambalvo 2010:215). Therefore some organisations use ABC systems based on the nature and complexity of their business, while others do not use it because it is not applicable to their business.

To what extent does your organisation use the following tools of Management Accounting?

6.2.2 Benchmarking

Participant [5]: *"This is a point of excellence, best of the best, top class, world record holder. It is a mark that everyone wants to achieve because it has been proven by someone that it can be reached."* Participant [7]: *"We benchmark our performance with our banking competitors in the market*." These responses corroborate Hope and Player (2012:87) who observe that benchmarking enables organisations to compare their performance with best-in-class results elsewhere; this entails analysing in detail the performance of an organisation considered to be the best in its class at performing processes and activities. They add that organisations need not necessarily be in the same industry as the analysing organisation and that the focus is on the ability to perform selected activities well, such as billing, distribution and customer service. Therefore benchmarking may be the best tool to measure whether the organisation is doing well compared to others and whether the organisation is reaching its goals and set targets.

"*When we talk about benchmarking, obviously competition law plays a role as all of information is not necessarily available. We do have an external company that provide us with data. We recently did benchmarking on our unit cost and benchmarking is not a tool we use on a monthly basis. However on the production and mining cost we are actually very competitive. [An]Other thing that one needs to take into consideration is the fact that we do not sell to [the] external market in South Africa; however we do have [an] export market in China and other foreign countries where we also benchmark our prices and again I must say benchmarking is not a tool that we use on a regular basis but on [a] quarterly basis*" [Participant 1]. During the interview, this participant showed data; including graphs and tables, on how their organisation stood compared to other organisations, both those in the same line of business and those outside its line of business, and the results indicated that their products were less expensive than those of their competitors. Roos (2012:415) has established that in a competitive organisational environment, organisations strive for a competitive advantage and one way to achieve this is through the use of benchmarking, which is the process of comparing organisation's performance to another organisation considered to be the market leader in the industry. This may also involve comparing performance internally between departments or even against hypothetical best-practice. Roos (2012) adds that an organisation can choose to set its standards at the benchmark levels, meaning variances will show the difference between actual performance and the best-in-business performance benchmark. Benchmarking may thus play an important role in aligning an organisation's objectives with those of its competitors, resulting in the application of best practices that will improve the financial performance of the organisation. Participant [2] said: *"there are two forms of benchmarking: being internal benchmarking where we benchmark operations within each other and there is external benchmarking where we benchmark against our competitors and external one is harder because of information not readily available. In our organisation we do benchmarking on a* *monthly basis as it forms part of our monthly reporting."* Organisations may choose to do benchmarking quarterly, monthly or yearly. Participant [3]: "*When one do [es] business, especially with the government, when we tender we actually compete with other organisations which makes it hard to get the business if our products are more expensive than theirs."* The participant gave the example of antiretroviral (ARVs) and observed that government has invested billions in their production. If his organisation tendered at R15 and competitor tendered at R10, this meant that the cost of production for the competitor was lower than for his organisation. Based on this, his organisation hired experienced management accountants at a very high price to implement new ways of saving production costs. He explained that benchmarking was the most useful Management Accounting tool for an organisation owing to its importance during tendering stages. They also found it useful when implementing new ways of doing business. Raiborn and Kinney (2013:689) confirm that each organisation has its own unique philosophy, products and people and copying such elements is neither appropriate nor feasible. Therefore an organisation should attempt to imitate those ideas that are readily transferable but, more importantly, to upgrade its own effectiveness and efficiency by improving on methods used by others. Organisations may be motivated to perform benchmarking by a variety of reasons, but the end result is that an understanding of another organisation's production and performance methods may be gained, allowing the organisation to identify its own strengths and weaknesses.

Participant [4] indicated that: "*We use benchmarking to encourage better results and it adds value to our organisation; sometimes we use [the] prior year's results to encourage better results in the current year."* Proctor (2006:397) argues that benchmarking is all about performance measurement and review and its fundamental aim is the achievement of a competitive advantage by learning from the experience of others or the past. "Benchmarking *helps us to increase financial performance of the organisation and we are using something called [PLUSS]."* [4]. PLUSS stands for:

- **Productivity:** This involves standardisation of business processes, improving productivity and embedding productivity through waste reduction.
- **Life:** This embraces and harnesses diversity, team engagement and wellness and also builds competence through training and development.

- **Unit cost:** This embeds appropriate and contextualised unit cost drivers.
- **Safety:** This ensures that there is no harm to employees.
- **Service:** This ensures that service is rendered in accordance with the agreed service level; effective integration and good governance.

Participant [4] indicated that these objectives were the cornerstone of their doing benchmarking in an attempt always to achieve the best results they could in all areas of the business. Norton and Hughes (2009:245) mention that an organisation evaluates the information obtained through benchmarking, and decides whether or not this information will enhance its methodology.

Benchmarking allows organisations to establish standards of performance in other organisations and to adapt them successfully to their own and to locate where they stand in relation to others. By identifying, understanding, and comparing the best practices and processes of others to its own, an organisation can identify problem areas and develop solutions to achieve the best levels of performance (Hope & Player 2012:88). Benchmarking has the capacity to provide information that can be very useful in driving organisations results.

During the interviews, participants agreed that they used benchmarking. It was established that they considered their production cycle and unit costs and benchmarked these against similar organisations in their line of business. Although participants said they did not use benchmarking on a monthly basis, they agreed that it was important to benchmark; some organisations appointed external companies to do benchmarking on their behalf. While the researcher was conducting the interviews, one of the organisations was engaged in a project in which they had appointed an external company to conduct benchmarking. This process indicated that they were operating above the inflation rate and as a result they started a restructuring process to reduce unit costs and ensure sustainability of the organisation. Although the results of benchmarking showed that they were excelling in terms of production and unit cost compared to their competitors, a decision was taken to reduce unit costs so that the organisation could remain sustainable over the years to come.

The benchmarking process proved to be complex in organisations that did not have external customers but that sold their products to internal segments based on their agreement to determine accurate measures of benchmarking without conflict of interest. However, based on the information and graphs provided by some listed organisations it was clear where they stood and how they should apply their strategies to improving their organisation's financial performance and sustainability, although the final decision lay with the board to which the information was presented.

Participants indicated that their organisations used benchmarking, although timelines differed depending on the organisation's requirements. They confirmed that benchmarking relied on competitive data that was not readily available from outside organisations (Scarlett 2004). Nevertheless, participants agreed that they used benchmarking and that if they had sufficient information to benchmark against, good results were achieved which were useful in the organisation.

6.2.3 Does your organisation use the Balanced Scorecard (BSC)?

Participant [1]: *"There are various scorecards; we have got one for business, one for CTL markets, one for exports markets. We have created our own balanced scorecards and we have:*

Customers: looking at type and quality of our coal.

Competitiveness: looking at the unit cost, profit.

Safety and Production: looking at safety of our employees and also production process.

Basically it is separated into five categories: quality, cost, safety, delivery and morale." Black and Al-Kilani (2013:381) assert that the BSC aligns an organisation's activities with its strategic vision and seeks to improve the internal and external communications and monitor and control an organisation's activities more effectively. The participants also showed detailed BSC reports and explained how they worked, confirming that BSC adds value to all spheres of the organisation. "*We also rely heavily on our survey for [the] balanced scorecard, although recently we haven't seen the best results as indicated by [the] colour red on our reports. Our vision is to be [an] industry leader in cost, quality and safe production through inspired people and again what we measure here is our strategy, that we need to look at our customers, we need to be competitive and how we do our production safely and also the morale of our people so that we get the best from them"* [1]. Hope and Player (2012:39) corroborate these sentiments in their belief that the BSC is an essential supporting structure for connecting strategic goals to measures and action plans, and that strategy maps connect important processes, enabling managers to focus on important areas of measurement and improvement. Horngren, Datar and Rajan (2012:492) believe that the BSC focuses only on achieving short run financial objectives but also features the nonfinancial objectives that an organisation achieves in order to meet and support its financial objectives. *"[The]* b*alanced scorecard also assist us to measures the financial results, if we see on the costs side we are not doing well, obviously there will be more focus. It also assists us a lot in identifying problem areas"* [1]. This is supported by Hilton and Platt (2011:43), who confirm that the BSC balances measures of financial performance, internal operations, innovation and learning, and customer satisfaction. If an organisation is to remain feasible in a changing and ever more competitive business environment, its managers need to continually ask the questions emphasised in the BSC (Hilton & Platt 2011:43). Therefore the BSC may be the best measure that an organisation can use to include all aspects such as finance, customers, business processes and learning and growth.

Participant [3]: "*Within each department there are people who look at improving things, we have engineers who consistently inspect if all problem areas identified are sorted, thereby improving financial and innovation costs.*" Mowen and Hansen (2006:467) argue that if design engineers receive quality training, they can redesign products to decrease the number of defective units; if the number of defective units is decreased, customer satisfaction will increase; if customer satisfaction increases; market share will grow; if market share grows, sales will increase; if sales increase, profits will increase. Thus the BSC may be a cornerstone in improving financial performance. "*The number of customers we have is very limited due to the nature of our organisation, as we do not sell to a wide range of customers" Participant [2].* Choosing the market and customer segments the business unit aims to serve, recognising important internal and business processes that the unit must be good at to deliver the value propositions to customers in the selected market segments, and choosing the individual and organisational capabilities needed for the internal, customer and financial objectives may play a very important role in improving the financial performance of an organisation. In this regard, the BSC may encourage good customer relations and also drive organisations to ensure that they value their customers.

Participant [4]: *"Our financial issues are addressed on the BSC and this might be in terms of savings that we need to make, cash flow, service level agreement and we then get scored on that*". Organisations should ask themselves whether the BSC is the right tool to provide solutions to their problems as often these problems have to do with poor organisation design and complex, dysfunctional systems that need rethinking from first principles. The BSC can make complex systems even more complex and thus have the opposite effect from the one intended (Hope & Player 2012:49). However, for the purpose of this study all participants were happy with the implementation and results achieved by using the BSC in their organisations.

Lastly, the participants indicated that they used different scorecards for business, markets, finance and other spheres of their business. These scorecards used by the listed organisations were determined based on the goals, plans and targets they wanted to achieve. The participants also indicated that scorecards were very important and considered all spheres such as quality, costs, delivery, safety and morale. These had a direct influence on the sustainability and on the financial performance of the organisation. Participants also indicated that scorecards drove the vision and mission of the organisation, thereby increasing shareholder value and customer satisfaction and improving the competitive strategy of the organisation. They also indicated that the BSC measured the performance of an organisation and identified the problem areas that it needed to deal with in order to ensure the smooth operation of the business. Therefore organisations that make use of the BSC may benefit from important information that affects all areas of their performance as well as strategy formulation and sustainability of the organisation, both financially and operationally.

a. How often does your organisation use information generated by the Management Accounting tools mentioned above?

Mowen and Hansen (2006:5) argue that management accounting can assist managers in recognising important issues, solving problems and evaluating performance; the information it provides is used in all organisations: manufacturing, merchandising, and service. They add that management accounting information is required by a number of individuals: in particular, managers and empowered workers need comprehensive, up-to-date information for planning, controlling and decision-making. Based on the information elicited from participants in this study, management accounting tools are applied in all organisations, although some tools are applicable in some departments and others not, As a result, each department or organisation has a management accounting department overseeing only the tasks of that department. All participants agreed that they had a management accounting department, indicating that information from management accounting tools was used, often based on the organisation's need and targeted results. *Participant [2] observed that "definitely we use Management Accounting tools to look at operational performance of the organisation as well as managing costs. Although ABC is being used by the organisation it's not in a fully-fledged stage, it is part of a segment that looks only at the specific costs after the raw materials are converted into a product form through manufacturing chain".* Participant [1]: "*again I must say benchmarking is not a tool that we use on a regular basis but on [a] quarterly basis.*" These responses add weight to the notion that information generated by management accounting tools is used by organisations on a different basis for different purposes and also to achieve different targeted results within the organisation. The success of management accounting information depends on whether managers perceive their decisions as being improved by the management accounting information provided to them (Horngren *et al.* 2002:7). *"We use management accounting information daily, weekly and monthly"* Participant [5]. Based on these findings on the use of Management Accounting tools, the researcher was able to derive sufficient information to indicate that Management Accounting tools were relevant and that the information it provided was widely used by several JSE listed organisations. Kociatkiewicz and Jerreling (2006:2) observe that the role of Management Accounting information is associated and non-segregated in the whole decision process, having the ability to influence the process at almost every stage.

b. How does your organisation generate sustainability information from the tools mentioned above to influence decision-making on the improvement of the financial performance of the organisation?

Participant [2]: "*Management accounting plays a major part, especially on operational level where we have more management accountants than financial accountants and its information is very useful for decision-making. We produce lots of reports that contain vital information for decision-making but the process is not streamlined and it's very complex as we spend lots of time going through reports and analysing variances and actually forget the important information that we need to focus on. However, information that is generated from management accounting tools plays an important role in improving financial performance of the organisation, but that depends on the quality of decisions that executives make based on the information."* Sustainability is neither a passing fad nor a public relations exercise; it provides many opportunities to minimise waste, reduce costs, and develop new and exciting products and services. It also encourages the rethinking of some deeply-rooted management practices, such as the way organisations set financial targets and budgets that differ from many of the principles of sustainability (Hope & Player 2012:97). For this reason, the sustainability information that management accountants produce in their reports should be the cornerstone for making reliable and sustainable decisions that will improve the financial performance of an organisation, even if only in the long term. Participant [3]: *"We use activity based costing, basically we were having some issues explaining our variances including purchase price variances. We ended up having Finance to explain management accounting responsibilities. We have only had a management accounting department for four months now and we have seen lots of improvement in our costing, operations and production department. Actually, before we had management accountants our financial performance was adversely affected by activities that happen in the factory: costs were going up and our gross profit margins were decreasing quite quickly and [the] decision was made to hire management accountants for all four factories."* This is an indication that management accounting is a necessity if organisations are to improve their decision-making; this will in turn affect financial performance, favourably or unfavourably, based on the quality of information generated by the Management Accounting tools. In some organisations today, Management Accounting systems are viewed as systems designed and operated by management accountants to satisfy the information requirements of accountants. This is a misconception as management accountants should not have sole franchise to develop Management Accounting systems; the responsibility is simply too significant to be carried by accountants only (Proctor 2006:409). Based on the responses from the participants in this study, Management Accounting tools are being used where appropriate within their organisations and these tools provide sustainability information that assists in decision-making and in improving the financial performance of the organisation. Although not all organisations use all Management Accounting tools for the provision of sustainability information because some may not be applicable to their particular business, the fundamental principle remains that Management Accounting improves their decision-making and financial performance. As confirmed by Proctor (2006:409), the fundamental reason for using Management Accounting tools is to provide managers with relevant, timely and accurate information to help them improve their organisation's performance. Participant [1] said that his organisation used benchmarking and BSC and it had provided them with sustainable information that they used for identifying focus areas and also for decision-making. This participant explained the detailed reports of Management Accounting that they used and which had an impact on their financial performance, both directly and indirectly. Although most participants indicated that they had different ways of generating sustainable information from Management Accounting tools, they all agreed that information derived from tools such as ABC, benchmarking and BSC had a direct impact on the financial performance of their organisation. This impact could be favourable or unfavourable. This indicates the importance of using Management Accounting tools to improve the financial performance and decision-making in organisations. Vitez (2014) observes that Management Accounting does not normally adhere to any national accounting standards; any organisation can design Management Accounting systems according to its needs and these will improve the decision-making process and increase its financial returns.

c. Do Management Accounting tools assist your organisation in the following areas?

Creating stakeholder value		Customer satisfaction		Competitive strategy

The participants noted that using Management Accounting tools improved customer satisfaction, competitive strategy and created stakeholder value.

It is a modern trend that organisations focus their attention broadly on all stakeholders, as it is increasingly believed that the long-term sustainability of an organisation depends on this broader focus (Roos 2012:3). Participant [1] stated that the performance management systems and scorecards they used definitely assisted in creating stakeholder value and customer satisfaction. *"The game plan is the strategy we have, which measures customers' satisfaction and our competitiveness in the market."* The response from participants to this question indicates that stakeholder value, customer satisfaction, and competitive strategy are generally combined in their organisational vision, mission and goals and this is what they aim to achieve. According to Longenecker, Moore and Petty (1997:151), customer service can provide organisations with a competitive edge, despite the nature of the business. Customer satisfaction strategy is a marketing plan that has customer satisfaction as its aim or goal; customer service should be the rule rather than the exception. Correia, Flynn, Uliana and Wormald (2003:10-30) argue that the competitive strategies adopted by organisations to sustain a competitive advantage are cost leadership strategy, which involves the organisation being a low-cost cost producer and protects the organisation against the potential for a price war; differentiation strategy, that is the development of unique products and services that permit the organisation to charge premium prices. Organisations could benefit a great deal if they combine stakeholder value, customer satisfaction and competitive strategy in their mission and vision as this would enhance their drive for good financial performance. Participant [3]: *"The organisation share price moved up and it was not driven by stakeholder value but by organisations interested in buying their organisation, and regarding our internal customers, they are happy as there is better information flow as a result of management accountants who are financially inclined.*" Having management accountants within the organisation may soon be the requirement for every organisation to remain in business as well as for good decision-making and for the achievement of successful financial performance*. "We have people that look at concern of customers, same as competitive strategies"* Participant [2]. *"Customer satisfaction is very important in the banking sector beyond revenue line"* Participant [7]. Raiborn and Kinney (2013:696) likewise found that organisations must establish methods to produce long-term marketplace success and should nurture a culture that listens to customers, builds customer relationships, and uses the information those customers provide to improve and innovate. This may then in turn improve financial performance of the organisations since customer satisfaction will lead to customers who buy more, increasing stakeholder value as well as helping the organisation to gain competitive advantage. Management accountants play a critical role in the planning, implementation, and measurement of shareholder-value creation (IMA 1997:6). Based on participants' responses this researcher agrees with Merchant (2009) who says that customer satisfaction is thought to be one of the most significant non-financial performance measures that managers in organisations should track. Based on participants' responses, it seems clear that Management Accounting tools have a direct influence on the financial performance of an organisation, indicated by stakeholders' value, customer satisfaction, and competitive strategies.

d. Does ABC benefit your organisation by providing sustainability information for decision-making?

"*Most people focus too much on the manufacturing side and that results on concentrating too much on labour and overheads, but forget about inputs like raw materials that come into the factory, and managing that alone is very critical for the organisations"* Participant [3]. Jiambalvo (2010:210) observes that, in the ABC approach, organisations recognise the important activities that induce the incurring of overhead costs. Some of these activities are connected to production volume, but others are not and the costs of the resources used in performing these activities are categorised into cost pools. These costs are then allocated to products using a measure of activity referred to as a cost driver. This may be evidence that ABC does provide sustainability information for decision-making as costs may be counted during the procurement stage when raw materials are acquired rather than in the manufacturing stage. Participant [2]: *"We are making use more of ABC to assist us in costing."* Although participants who used ABC were in agreement that it did add value to the costing system of the organisation, Horngren, Datar and Rajan (2012:177) are of the view that successful implementation of ABC systems requires more than an awareness of the technical details as it constitutes an important change in the costing system, and it requires a manager to make important alternative decisions with respect to the explanation of activities and the level of detail. Management accountants must: acquire aid from top management and create a sense of the seriousness of the ABC effort; create a guiding coalition of managers through the value chain of the ABC effort; train and educate employees in ABC as a basis for employee empowerment; seek small, short-run successes as evidence that the ABC implementation is yielding good results; and recognise that ABC information is not perfect because it balances the need for better information against the costs of creating a complex system that few managers and employees can understand (Horngren *et al*. 2012:177). Thus using and implementing ABC correctly and accurately will benefit the organisation as it has the capacity to reduce cost and enhance decision-making information, thereby improving financial performance. Participant [6]: *"Feedback gained from ABC assist[s] us to keep relevant to the current market demand and to enable[s] us to compete."* ABC is relevant to many organisations today and most participants agreed on this. ABC assists management in understanding the causal linkages between activities and costs. Participants noted that ABC information or reports were very useful for their decision-making purposes. This is also indicated by Chellasamy and Ligy (2014) who found that activity-based costing is a management decision-making tool. This could benefit the JSE listed organisations in determining where costs are being incurred, what initiates these costs and where to apply efforts to limit inflationary costs. ABC can play an important role in improving the financial performance of an organisation as it can ensure that costs are allocated accurately and minimised.

e. Does the BSC assist your organisation in providing sustainability information for decision-making?

"Based on the scorecards that we have, it assist[s] us in decision-making regarding our game plan (strategy or goal) such as; customer, competitiveness as well as safety and production" Participant [1]. Thus the BSC can be used to provide sustainable information that assists organisations to make sound and beneficial decisions, which may then improve financial performance. As confirmed by Black and Al-Kilani (2013:380), BSC aligns organisation activities with strategic vision seeks to improve the internal and external communications and to more effectively monitor and control organisational activities. When managers conduct the decision-making process, they need to gather information that allows them to see the whole picture, and can BSC provide this (Black & Al-Kilani 2013:380). An organisation that

uses BSC may be in better position to improve its decision-making process than those that do not. Participant [6]*: "To an extent BSC does assist but in a way that it needs to be revised from time to time."* Mowen and Hansen (2006:475) argue that BSC is compatible with activity-based responsibility accounting as it focuses on processes and requires the use of activity-based information to execute many of its objectives and measures. Participants indicated that the BSC was useful within the organisation: based on the organisation's needs, a scorecard was used to derive the information that would be used for decision-making. Valiris, Chytas and Glykas (2005) have emphasised that BSC provides a structure to guide and direct decision-makers through the process of measure selection, resulting in better quality decisions.

f. Does benchmarking provide sustainability information for decision-making for your organisation and, if so, how?

Participant [3]: "*We learned from other companies during tendering with government regarding the way they do their business, and we restructure how we do our business by taking strong decisions to improve our costing process which will benefit the organisation in a long run."* When examining and comparing the best practices of others, an organisation will frequently perform what is called a gap analysis, a way of identifying the performance or operational differences between organisation process and that of the benchmarking partners, and of ascertaining why the differences exist (Hope & Player 2012:89). Benchmarking can thus provide sustainability information that may assist decision-making within organisations. Participant [1]: "*We recently did benchmarking on our unit cost and we [are] busy with a project that is looking at costs and complexity within the organisation and we are doing very well and we are also very competitive."* By improving unit costs, organisations may directly improve their financial performance, again suggesting that benchmarking can play an important role in driving decision-making on many aspects of the organisation. Participant [2]: *"Definitely we use benchmarking, as we have different concentrators within the group, I cannot confirm how advanced it is but we use it on a month to month basis."* Participant [4]: "*We use benchmarking to encourage better results."* When benchmarks are used as standards, managers and management accountants know that the organisation will be competitive in the market place if it can achieve these standards (Horngren *et al*. 2012:266). This confirms that Management Accounting tools such as benchmarking are very important in providing sustainable information for decision-making and that these do influence financial performance both directly and indirectly. *"Benchmarking in a way sets minimum standards, i.e. compliance issues; to remain on the edge these need to be exceeded"* Participant [6]. Although participants stated that they did not use benchmarking on a regular basis they emphasised that it played an important role in decision-making as a result of the information derived from benchmarking. Benchmarking adds the highest value to practices as they evaluate current performance and work toward significant improvement (AAOS 2012), but even though benchmarking can facilitate accountability it should not be used to assign blame. Thus this study found that benchmarking does provide sustainability information for the decision-making in an organisation.

g. How do your organisation's goals or strategies support Management Accounting tools in providing sustainability information in the decision-making process?

"Most of our decision-makers are not hands on the operations of the bank but rely solely on the information from management accountants" Participant [7]. It is thus clear that Management Accounting information can play an important role in directing an organisation's goals and strategies. *"The Management Accounting tool is used as a measuring stick as to how far the organisation is in realising their goals"* Participant [6]. Taking into account the fact that many organisations may have a Management Accounting department, this alone may ensure that organisation goals and strategy also include information that is generated by management accountants. Strategic Management Accounting helps the organisation and its managers to make choices through information support and is also concerned with the execution of strategies by setting up control systems that drive the chosen strategies (Seal *et al*. 2009:676). Several participants indicated that their vision and mission also included Management Accounting objectives and goals that they had to achieve. Participant [2]: "*Definitely management accountants assist the organisation in providing information that is useful for decision-making*." As Participant [1] observed, their strategy was to be the industry leader in cost, quality and safe production. This

indicates that organisational goals and strategies take Management Accounting tools, which may assist in providing sustainability information for decision-making, into account. Participant [2] stated that "*Management accounting produce[s] report to no end, however the management accounting function in itself is very relevant but executives need to support it based on the decisions they make."* Participants stated that although there were many Management Accounting reports providing a great deal of information, it still remained the responsibility of the executive management to decide whether to utilise such information or not. Brandau and Hoffjan (2010) argue that Management Accounting currently remains far removed from its function as a developer of strategic decisions and as a support function for corporate planning and coordination processes.

6.3 IMPROVEMENT OF THE FINANCIAL PERFOMANCE OF AN ORGANISATION

a.	Does your organisation benefit from sustainability information generated specifically from ABC to improve financial performance?

"ABC adds value to financial performance as every manager within our organisation (department) ensures that cost that gets allocated to them actually reflects fair basis of total banking costs" Participant [7]. Therefore Management Accounting plays an important role in many organisations as it affects managers' performance basis, resulting in higher bonuses. The use of ABC within the banking sector also plays a major role in improving financial performance.

Participant [3] stated that *"we use ABC tools to assist us in getting reliable information, as we used to experience difficulties with models we used before implementing Management Accounting department in our organisation and we are now seeing benefits of such through our finances."* This participant added that *"it's not a doubt that Management Accounting tools are adding value to the organisation."* Sheu, Chen and Kovar (2003) believe that ABC can provide management of listed organisations with better performance measurement of diverse production activities, especially when committed costs are a significant factor and will in turn have a direct influence on the financial performance of the organisation. These observations support the notion that ABC does improve financial performance of the organisation if implemented and applied accurately. ABC enables managers to understand profitability better (Hope & Player 2012:185). Organisations that have good ABC systems may stand a better chance of improving their financial performance. Participant [2]: *"We do have what we call metal cost accounting which we use for costing purposes due to nature of our business."* Although some organisations may not use ABC systems, they may have a process to assist them in their costing to ensure accurate product costing. Participants agreed that Management Accounting was very relevant to modern day operations of a business and did have a direct influence on the financial performance of an organisation. They agreed that accurate allocation of cost from the start would have a direct impact on the financial performance of the organisation, and therefore the decision-making process as to whether the product was yielding a profit or not would be apparent. Thus ABC does improve the financial performance of the organisation if implemented and applied correctly.

b.	Does your organisation benefit from sustainability information generated specifically from the BSC to improve financial performance?

The BSC gets its name from an attempt to balance financial and non-financial performance measures to evaluate both short-run and long-run performance in a single report. The financial advantages of BSC cannot be expressed in short-run earnings, but vigorous improvements in non-financial measures communicate the prospect of creating economic value in the future (Horngren *et al.* 2002:747). Participant [4]: *"BSC helps us to set our strategies and provide[s] us with more information to make sound decisions."* Therefore sustainability information generated from BSC does benefit the organisation in improving its financial performance. Participant [3]: "*Within each department, we have people who focus on improving things."* This may therefore indicate that information from BSC plays an important role within an organisation's departments. "*It has an influence on financial performance as we can focus on areas that need more attention"* Participant [1]. BSC assists management in obtaining a more balanced view and in making more informed strategic decisions (Black & Al-Kilani 2013:382). In this study, the participants pointed out that although the BSC may not impact directly on financial performance, it measures the problem areas that an organisation needs to focus on.

It was mentioned a number of times that the scorecard helps the organisation to identify where it is doing well and where improvement is needed. Some of the organisations were using the BSC to measure their strategy and also their financial results. This emphasise what Khan *et al*. (2011:29) indicate when they argue that the BSC provides an integrated framework to assist in the implementation of strategies and the measuring of performance by developing goals and measures along different perspectives, linking them with the vision, mission and strategy of the organisation for long-term planning. Thus it seems clear that BSC plays an important role in improving decision-making and financial performance in an organisation.

c.	Does your organisation benefit from sustainability information generated specifically from benchmarking to improve financial performance?

"If we are overly above or below certain targets then we might be able to identify that we have exposure to instruments that banks are not supposed to have exposure to do volatility and risks in the market and benchmarking helps us to set goals going forward and that helps us in improving financial performance" Participant [7]. Benchmarking may assist in providing sustainability information that prevents risks and also improves performance, either indirectly or directly. As confirmed by participant [1], whose organisation was competitive and doing better than its competitors, this is a clear indication that benchmarking generates sustainability information which improves financial performance. *"We [are] definitely one of the cheapest mines as indicated by the quarterly base benchmark with other mining organisations."* Through benchmarking, organisations can work to improve their ability to deliver high quality products from the perspective both of how products are made and of how customers perceive these products (Raiborn & Kinney 2013:692). Benchmarking plays an important role in the continuous improvement of the organisation. Participant [2]: *"The report we submit to executive regarding benchmarking information is what they use to make their decision."* Benchmarking can provide information that is very useful to executives of organisations in their decision-making. Participant [4]: *"Benchmarking does add value as we get better information which influences our financial gain within our organisation as we use that information to measure our productivity and costs."* Therefore sustainability information generated from benchmarking can improve the financial performance of

the organisation. Most participants stated that benchmarking played an important role in improving the financial performance of their organisation, although information such as procurement costs, unit cost and production costs to benchmark against was not readily available. Bain (2013) maintains that benchmarking advances performance by recognising and applying best demonstrated practices to operations and that listed organisations then advance their performance by tailoring and integrating these best practices into their own operations, not by copying but by innovating. This is further evidence that benchmarking can improve the financial performance of an organisation.

6.4 STRATEGIES WHICH INFLUENCE DECISION-MAKING AND PERFORMANCE

a.	Does your organisation employ research and development in its line of business for it to remain sustainable and to continually improve financial performance?

"I know we have quite good teams that do research on how we are perceived in the market and they produce lots of information that is related also to the BSC" Participant [7]. Research and development within an organisation may be the key to identifying new ideas and opportunities and learning how to do things better. Managers of organisations can formulate and describe their strategy clearly and communicate it throughout the organisation in order that it operates successfully. Executives need to free managers from the shackles of bureaucratic strategy-formulation processes and harness the intellectual capital inherent in their people (Hope & Player 2012:29). Participant [3]: "*Our marketing department looks at how they can do innovations better, let's say for instance we have Bio-plus strawberry and we want to implement Bio-plus apple, we will look at how will it affect our sales, factory, volume and market as well as costs regarding new products. And from a human point of view we train graduates and develop them to become part of our business rather than spending huge costs on experienced professionals in the market, but we train and retain them unlike what our government is doing with organisations out there where they train young people and get incentive from government and let them go."* This suggests that organisations implement their strategy carefully, taking into account the long-term performance of the organisation

as well as its impact on the financial performance of the organisation. "*We have got mining industry department that focus on research such as new equipment and other research that I cannot recall now, but we have people that focus specifically on research and development*. *We also have a whole company that looks at technology, research and more information that helps drive organisation for [the] future"* Participant [1]. By having a department that focuses only on the sustainability of an organisation through researching new ideas and developing new ways of doing things, organisation can derive benefits in the long-term through its sustainability, competitiveness and performance. *Participant [2]: "We have people that focus on research facilities and other BU segments do not have specific departments but use the group information obtained from research."* The participants noted that their organisations had a department that focused solely on research and development of new ideas that best fit the business that they were in, including new technology, new machinery and equipment. As a result of this, sustainability had become an important factor, such as the life span of mines or products manufactured by an organisation and their relevance to the long-term survival of the business. Some participants indicated that there were research facilities within the organisation that focused on the development and testing of chemicals and ways of improving products or doing things differently at a lower cost, and at the same time taking safety and sustainability into account. Albelda (2011) remarks that Management Accounting practices function as a facilitating mechanism for management to reinforce commitment to the continued improvement of performance, compliance with legislation and communication with interested parties. This may indicate that implementing research for development purposes within the organisation can yield positive results for an organisation in terms of sustainability, good financial performance and compliance with legislation guidelines that affect the organisation. Bertels, Papania and Papania (2010:9) argue that an organisation's sustainability and financial improvement consists of managing the triple bottom line and this includes decision-making that takes into consideration financial, social and environmental risks, obligations and opportunities. Therefore organisations that employ research and development within their business may benefit a great deal from sustainability and improvement in financial performance.

b.	Does your organisation apply other Management Accounting tools to improve financial performance?

Participant [3]: "*Nowadays we have performance contracts which are aligned to what is expected from operations and manufacturing which affect bottom line at the end of the day.*" Although participants indicated the importance of Management Accounting tools, it was evident that in conjunction with other strategies they used, the desired financial performance could be achieved. Participants indicated that their organisations had Management Accounting departments that dealt with different sections of their units for specific purposes. Management accountants play an important role in the planning, implementation, and measurement of shareholder-value creation (IMA 1997:6). Therefore organisations that use other Management Accounting tools not mentioned above may stand a better chance of improving their financial performance.

c.	Does your organisation take measures to ensure that sustainability information generated from Management Accounting tools sustains future financial performance? If so, in what way?

The way an organisation explains its purpose and aims and the way it articulates its goals affects how its employees think, behave, and act in any given situation. Many organisations focus their purpose, aims and goals on making a profit and maximising stakeholder value rather than establishing great businesses and satisfying stakeholders (Hope & Player 2012:1). Participant [6]: *"Strategies are revised on a year to year to year basis and all the information gathered is compared on a month to month basis. Any deviations are addressed for improvement or for sustainability: meaning consideration is given to micro and macro factors and realignment accordingly, economic conditions, people issues and objective of the organisation."* Reviewing strategies may be the best option to remain relevant and for organisations to conquer future challenges. Participant [3]: *"We hired the best Management Accountants to drive the organisation's strategy and vision further at about costs of R4 million a year as there was a need for that in our factories."* This remark confirms that organisations may be taking Management Accounting tools very seriously as a driver in obtaining better information that can successfully drive financial performance and sustainability. “*We do [a] strategy budget that looks at year 2050 being long-term and also 10 year strategy that looks at profitability, cost and also life span of the organisation”* Participant [1]. This may substantiate the notion that organisations take measures to ensure that sustainability information generated from Management Accounting tools sustains future financial performance. Participant [1]: “*Our strategy is to be industry leader in cost, quality and safe production through inspired people.”* This indicates a drive towards future successful financial performance. Participant [2]; *“sustainability of the organisation therefore depends on the actions that executive team do based on the information management accountants give them. In our case it’s not the issue of information but it’s the issue on how decisions are made by executives rather than producing reports that are not used by executive team.”* Participants indicated that sustainability depends on decision-making by executives and directors and also on quality information from operational departments. Considering the life of the organisation, it is often one of the main functions of management to make decisions as part of their everyday lives in order to ensure that the organisation remains sustainable and profitable in the future as well (Kociatkiewicz *et al*. 2006). Hence good decisions are significant and ensure the wellbeing but also the survival of an organisation.

6.5 SUMMARY

In Chapter 6 the results and findings were discussed under different sub-headings. The research objectives were achieved as a result of the analysis of the information obtained from semi-structured interviews. It was established that organisations use ABC mainly as a form of cost management; although some organisations use ABC systems based on the nature and complexity of their business, others do not as these systems are not applicable as a result of their type of business. It was also established that ABC provides sustainability information for decision-making and that this does improve financial performance if implemented and used accurately.

Although benchmarking may be conducted monthly, quarterly or whenever the organisation chooses, the process encourages better results and adds value, and sustainability information generated from benchmarking may improve the financial performance of an organisation, as indicated by participants. Benchmarking advances performance by recognising and applying best demonstrated practices to operations and listed organisations can use this to advance their performance by tailoring and integrating these best practices into their own operations, not by copying, but by innovating.

Lastly, the use of the BSC aligns organisational activities with its strategic vision and seeks to improve internal and external communications and more effectively monitor and control activities. BSC also assists management in forming a more balanced view and making more informed strategic decisions, and it may help the organisation to identify where it is doing well and where improvement is needed.

Therefore the results and findings of the research on the role of Management Accounting tools in providing sustainability information for decision-making and its influence on financial performance led to the following conclusions:

- Management Accounting tools are used by JSE listed organisations, providing sustainability information for decision-making and improving financial performance.
- Management Accounting tools are very useful in improving the financial performance of an organisation.
- Management Accounting tools provide strategies that influence decision-making and performance, although decision-making lies with the executive or director of the organisation.

Although Management Accounting tools are relevant and are useful in providing sustainability information for decision-making to reap exceptional results in any listed organisation, success depends on the decisions made by executives and directors based on the information provided in Management Accounting reports.

Chapter 6 contains the conclusions, findings, recommendations, and suggestions for further research.

CHAPTER SEVEN: CONCLUSION, RECOMMENDATIONS AND FURTHER RESEARCH

7.1. INTRODUCTION

This chapter summarises the study's results and findings, makes recommendations, and offers suggestions for future research. The objective of the study was to examine whether Management Accounting tools could provide sustainability information for decision-making and the influence of this on the financial performance of an organisation. The title of the study was intended to point out that Management Accounting tools can provide such information and also that it does influence the financial performance of an organisation if applied efficiently and effectively.

The research was premised on the hypothesis that many organisations are still not using Management Accounting tools to assist in the provision of sustainability information for decision-making, and that management accounting information has been optional in many organisations in terms of driving their strategy, financial performance, decision-making, and the day-to-day operations of the business. But the study has shown that Management Accounting tools can provide sustainability information to managers and people within and outside the organisation to improve its financial performance and sustainability.

The study has the following objectives:

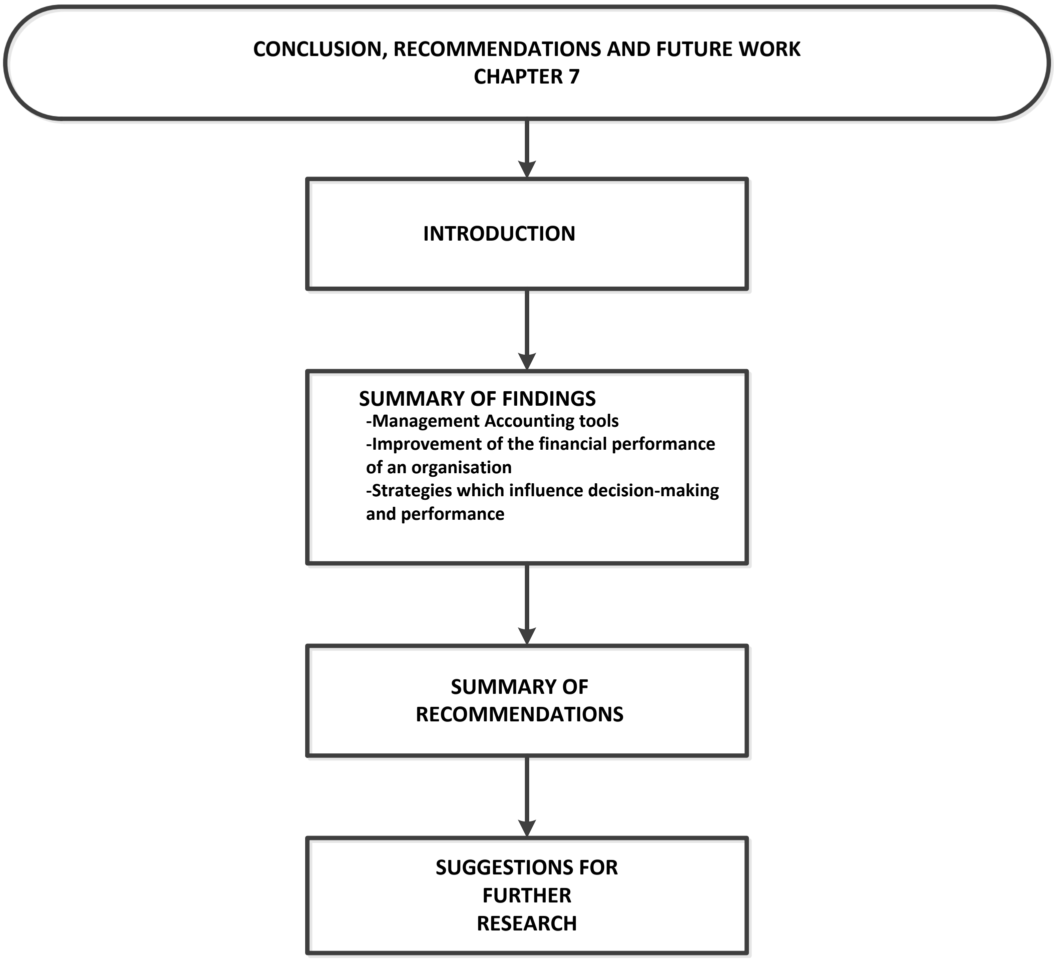
- To identify the role of Management Accounting tools such as the BSC, benchmarking and ABC in providing sustainability information that influences financial performance.
- To establish whether sustainability information generated by tools such as the BSC, benchmarking and ABC improve the financial performance of organisations.
- To establish the extent to which sustainability information influences decision-making in the organisation.

The study was achieved by means of semi-structured interviews and these were conducted at public places and also at participants' places of work. The research findings were analysed in three sections according to the structure of the semi-structured interviews. The three sections were:

- Management Accounting tools
- Improvement of the financial performance of an organisation
- Strategies that influence decision-making and performance.

7.2.1 Visual layout of Chapter 7

Figure 7.1: Layout of Chapter 7



7.2. Summary of the findings

7.2.1 Management accounting tools

The findings from the interview data indicated that Management Accounting today is very relevant and has a direct influence on the financial performance of an organisation, which is why many of the JSE listed organisations have created Management Accounting departments that focus only on Management Accounting duties and issues and the relevance of these to the future sustainability of the organisation. All participants agreed that Management Accounting tools provide sustainability information for decision-making and that this influences financial performance of their organisations.

7.2.2 Improvement of the financial performance of an organisation

All participants agreed that Management Accounting tools had improved the financial performance of their organisation although not necessarily directly. This study found that Management Accounting tools were important in providing sustainability information for decision-making and in influencing financial performance in JSE listed organisations.

7.2.3 Strategies influencing decision-making and performance

Participants stated that their organisations had strategies that influenced decision-making and that improved financial performance; these strategies also enabled management to look to the future and sustainability of the organisation.

7.3. The recommendations are summarised as follows:

- It is recommended that directors, shareholders and managers realise the role of Management Accounting tools in their organisations and the benefits it can provide in terms of accurate measures of sustainability and financial performance, reliable information for decision-making and control and planning of an organisation's operations. The findings indicated that Management Accounting tools play an integral role in improving the financial performance of the organisation as well as in its decision-making.
- The decision-makers are strongly encouraged to make use of reports generated by management accountants to assist them in making appropriate and informed decisions that will benefit the organisation. The study indicated that decisions to utilise information from Management Accounting tools lie with the decision-makers in these organisations.
- Organisations that do not have management accountants or Management Accounting divisions are advised to establish such departments. The findings indicated that Management Accounting is very useful in value creation, accurate decision-making, and driving an organisation into a successful, profitable future.

7.4. SUGGESTIONS FOR FURTHER RESEARCH

This study identified the role of Management Accounting tools in providing sustainability information for decision-making and its influence on the financial performance of the organisation. This leads to the suggestion that future studies should focus on the role of management in utilising Management Accounting information when making decisions.

The study also found that Management Accounting tasks are performed by financial managers who focus most attention on financial statements and reporting. Future research should also focus on the importance of segregating Management Accounting roles from those of financial accountants or managers so that organisations can focus on producing separate reports for different outcomes.

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APPENDIX A – INTERVIEW QUESTIONS

1. Management Accounting tools

To what extent does your organisation use the following tools of Management Accounting?

1.1. Activity based costing (ABC)

1.2. Benchmarking

1.3. Balanced Scorecard (BSC)?

a. How often does your organisation use information generated from the Management Accounting tools mentioned above?

b. How does your organisation generate sustainability information from the tools mentioned above to influence decision-making on the improvement of the financial performance of the organisation?

c. Does ABC assist your organisation in the following:

Creating stakeholder value	Customer satisfaction	Competitive strategy

d. Does ABC benefit your organisation by providing sustainability information for decision-making and if so, how?

e. Does the BSC assist your organisation in providing sustainability information for decision-making and if so, how?

f. Does benchmarking provide sustainability information for decision-making for your organisation and if so, how?

g. How do your organisation's goals or strategy support Management Accounting tools in providing sustainability information in the decision-making process?

2. Improvement of financial performance of an organisation

   a. Does your organisation benefit from sustainability information generated specifically from ABC to improve financial performance?

   b. Does your organisation benefit from sustainability information generated specifically from the BSC to improve financial performance?

   c. Does your organisation benefit from sustainability information generated specifically from benchmarking to improve financial performance?

3. Strategies which influence decision-making and performance

   a. Does your organisation employ research and development in its line of business for it to remain sustainable and continually improve financial performance?

   b. Does your organisation apply other Management Accounting tools to improve financial performance and if so, which ones?

   c. Does your organisation take measures to ensure that sustainability information generated from Management Accounting tools sustains future financial performance? If so, in what way?

APPENDIX B – LETTER OF CONSENT

CONSENT TO PARTICIPATE IN THIS STUDY

I, __________________ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be anonymously processed into a research report or journal publications

I have received a signed copy of the informed consent agreement.

Participant's name & surname ………………………………………… (please print)

Participant's signature …………………………………………….. Date…………………

Researcher's name & surname …...…………………………… (please print)

Researcher's signature ………………………………………….. Date…………………

Witness's name & surname .... (please print)

Witness's signature ……………………………………............... Date …......................

APPENDIX C – PARTICIPANT INFORMATION SHEET

PERMISSION LETTER

Request for permission to conduct research at your organisation

The role of Management Accounting tools in providing sustainability information for decision-making and its influence on financial performance

28 August 2013

Dear Sir/Madam

I, Khathutshelo Matambele, am doing research towards MPhil Accounting Sciences under the supervision of Prof B. van der Poll, professor in Management Accounting at the Graduate School of Business Leadership. We are inviting you to participate in a study entitled: The role of Management Accounting tools in providing sustainability information for decision-making and its influence on financial performance.

The aim of the study is to assess the extent to which Management Accounting tools provide sustainability information for decision-making on the financial performance of an organisation.

Your company has been selected because we will be able to generate information from it that will assist a number of organisations across South Africa to improve their decision-making and financial performance.

The study involves interviews.

The research involves minimal risk as the participants may experience normal levels of discomfort when participating in the interviews, which will be conducted during work hours.

Participants will be informed of the results by way of a journal article based on this study and a copy of the report will be sent to them.

Yours sincerely

Khathutshelo Matambele

Accountant Finance

072 423 6558

khathutshelo@hotmail.com

APPENDIX D – ETHICS CLEARANCE CERTIFICATE

UNISA university of south africa

Ref #: 2014/CAS/SAS/0001

RESEARCH ETHICS REVIEW COMMITTEE:

COLLEGE OF ACCOUNTING SCIENCES

Mr K Matambele (student number 42237378)

Supervisor: Prof HM van der Poll (staff number 1125346)

This is to certify that the application for ethics clearance submitted by

K Matambele (42237378)

for the study

The role of Management Accounting tools in providing sustainability information for decision-making and its influence on financial performance in the fulfillment of the Degree of MPhil (Accounting Sciences) has been **approved**.

The application for ethics clearance for the above-mentioned research was reviewed by Prof HC Wingard on 28 January 2014 in compliance with the Unisa Policy on Research Ethics. **Ethical clearance has been granted**. Please be advised that the research ethics review committee needs to be informed should any part of the research methodology as outlined in the Ethics Application (Ref. Nr.: 2014/CAS/0001), change in any way.

The Research Ethics Review Committee wishes you all the best with this research undertaking.

Kind regards,

Prof HC Wingard, Chair of the CAS Research Ethics Review Committee

College of Accounting Sciences, Unisa

wingahc@unisa.ac.za

28 January 2014

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APPENDIX E – TRANSCRIPTS

TOPTranscriptions
we play with words

CERTIFICATE OF VERACITY

We hereby certify that in as far as it is audible, the following is a true and correct transcript of the recording provided by you in the matter:

Participant [1]

INTERVIEWEE: Okay, so, participant name, that will be me?

INTERVIEWER: Yes. So that is just initially telling you that this information that we are going to be talking about is going to be compiled into a report. So it is going to be anonymous, so we are not going, when I do the final part of my research, I am not going to mention names or anything.

INTERVIEWEE: Researcher name? You will put researcher …?

INTERVIEWER: I will put my name.

INTERVIEWEE: Witnesses?

INTERVIEWER: Yes, that is fine, thank you.

INTERVIEWEE: Okay, so now tell me a bit, this is for your final scripture, whatever you need to give in for your Masters?

INTERVIEWER: Yes, yes, that is for my final chapter.

INTERVIEWEE: Okay.

INTERVIEWEE: Oh, at Unisa? So you are doing this through Unisa?

INTERVIEWER: Yes, it is a dissertation. So this is an ethical clearance that I am doing this for …

INTERVIEWEE: Just to confirm that you are doing this for your studies …?

INTERVIEWER: Yes.

INTERVIEWEE: … not for anything else.

INTERVIEWER: Yes.

INTERVIEWEE: Okay.

INTERVIEWER: And then because this interviews, I need to …

INTERVIEWEE: You want to copy it?

INTERVIEWER: Yes, I need to make notes and then also record it. So, it is fine.

INTERVIEWEE: Okay, so I am going to answer this and then I am going to [inaudible 01:35], is that fine?

INTERVIEWER: Yes, yes, that is fine.

INTERVIEWEE: [01:36 to 02:34 on a phone call]

INTERVIEWER: Yes, so the purpose for this is for me to gather information around companies. I have already had quite a few people that I will be interviewing this week and next week and then …

INTERVIEWEE: Outside of (participant [1]) company?

INTERVIEWER: Yes, outside of (participant [1]), yes so after that, I will compile the information that I got and make a report and say this is how this organisation operates so it is going to be confidential. I am not going to be saying this and this from different organisations. And the title …

INTERVIEWEE: Sorry to interrupt you.

INTERVIEWER: Okay.

INTERVIEWEE: Have you specifically looked at the same fields in some of the other companies as well?

INTERVIEWER: Yes, yes, then the title of the study, Management Accounting Tools Providing Sustainability Information for Decision-Making and its Influence on Financial Performance. So you will see that when you look at these principles like activity based costing, benchmarking and balanced score card so the information that you here at your organisation get at the end of the day, does it add value? Is it impacting on the financial performance which is why the questions are more on that side?

INTERVIEWEE: I see a lot of the stuff you refer back to the activity based costing?

INTERVIEWER: Yes.

INTERVIEWEE: So we are not really using that?

INTERVIEWER: You are not really using activity based costing?

INTERVIEWEE: Yes, well I think it is more, also it will probably be more relevant in a sort of a [company name] field.

INTERVIEWER: Yes, yes.

INTERVIEWEE: Sort of maybe manufacturing stuff.

INTERVIEWER: Yes, yes.

INTERVIEWEE: I mean in the mining industry, and, but you can also tell me what your exact definition is about.

INTERVIEWER: No, it is about accurate product cost if it is product cost, you know like for each activity that you do. Do you assign cost to each activity and how accurately do you get information from that product? Let us say when a manufacturer produce pens and they look at cost involved in all stages like.

INTERVIEWEE: [inaudible 04:52]

INTERVIEWER: Yes, and then do we add value when we price at the end of the day. Do we cover costs for all those processes that we went through?

INTERVIEWEE: Yes.

INTERVIEWER: So yes, that is fine. Because some of the people might not be using activity based costing but they might have benchmarking on the role of the work that they do. They might have performance measurements, they might have balanced scorecards. So we will definitely look at the aspects that they do and then we will see what information we can get.

INTERVIEWEE: I just wanted to mention because obviously I think the mining industry, I do not know if you had discussions with other mining companies as well and I mean we are not manufacturing so we will be different in terms of the ABC, part of the costing. I mean in our case we mine coal, cost a specific amount of money and you take that and divide it by your tons and you get a rand per ton and then your overhead costs. We basically allocate based on a ton basis.

INTERVIEWER: Okay.

INTERVIEWEE: Yes, I do not know if that is relevant…

INTERVIEWER: Yes, that is [inaudible 06:10]

INTERVIEWEE: Sometimes so that is the closest we get to allocating specific cost to a product.

INTERVIEWER: Yes, yes. Okay that is also relevant because also in some other companies when we talk about management accounting, they deal mostly with salaries, payroll and budget and then that is how they do their costing in terms of the increases that are going to be happening. So, it is that information that I will combine at the end of the day and see if it is adding value at the end of the day and if it is improving overall financial performance of the organisation.

INTERVIEWEE: Okay.

INTERVIEWER: Yes and with benchmarking, this is the kind of stuff that we compare functions, products and activities that mining companies does. So in terms of, okay, not taking into account competition but for every organisation to grow we need to have a benchmarking process, sort of like a benchmark with others like [company name], for instance. Is the process that your organisation using working? Are you doing it better compared to the other companies? So like that is how benchmarking will be around. How does it work in your line of business?

INTERVIEWEE: Okay, so you are asking me? Well, in terms of obviously competition law plays a role here?

INTERVIEWER: Yes.

INTERVIEWEE: All of it is not necessarily available but we do look at our production when we do benchmarks. I think we got an external company which provides some of the information for us, for example, our production sections …

INTERVIEWER: Yes.

INTERVIEWEE: … you can see where in the country we are currently slotted based on the tons we mine.

INTERVIEWER: Okay.

INTERVIEWEE: I can, if you want to, I can show you maybe some graphs later.

INTERVIEWER: Yes, yes, that will be very great. It will help.

INTERVIEWEE: And show you how it looks and also in terms of the cost, we did recently do some benchmarking on our unit cost as well. But it is not really a tool we use on a monthly basis so yes we are currently investigating or busy with a project within the whole of our organisation

INTERVIEWER: Yes.

INTERVIEWEE: Looking at cost and complexity in the company so we did go out now and again look at how we compare to our competitors.

INTERVIEWER: Yes.

INTERVIEWEE: And basically on the production as well as the cost, we are actually quite competitive. The other thing is also, you just need to take into consideration that our company is, we are not, we do not sell to an external market really. We are not an export market which sells into the export business, but we do sell to China, India but most of our coal we mine, we sell to our business units.

INTERVIEWER: Oh okay.

INTERVIEWEE: And we have also got a contract with them on how we determine the price …

INTERVIEWER: Okay.

INTERVIEWEE: … to sell to them.

INTERVIEWER: That is very nice.

INTERVIEWEE: Yes, it is again benchmarking, I will not say a management tool we use on a regular, monthly basis.

INTERVIEWER: Yes, but every now and then you do for the organisation to actually be competitive and to actually meet the needs out there because …

INTERVIEWEE: I quickly, I just, I do not know, should I quickly look at that type of graph?

INTERVIEWER: Yes, yes, that is fine. I will just …

INTERVIEWEE: Let me see where will I get that, let me just see if it is in here.

INTERVIEWER: Okay. Yes, because things like definitely benchmarking, not many organisations use it on a daily basis. It is just when you want to see a strategy [inaudible 10:07]

INTERVIEWEE: Just for example, currently our company compares well within the SA underground boring pillar so we also compare it to similar kind of mining. You cannot compare it to an open cast. It is a different kind of mining and then here for example, this is the Rand per, our unit cost, so you can see here is our company and the different mines that we compare to.

INTERVIEWER: Okay.

INTERVIEWEE: Here is some of the [x] 10:31] mines, there are the [x] mines. So if you look at us, we are almost the lowest.

INTERVIEWER: Yes.

INTERVIEWEE: There are one or two other mines but this mine is actually also giving a different kind of mining.

INTERVIEWER: Oh okay.

INTERVIEWEE: It is an underground but there is a different method they use.

INTERVIEWER: Oh okay.

INTERVIEWEE: We basically some of the cheapest mines.

INTERVIEWER: Yes, yes.

INTERVIEWEE: And here is for example, some of the benchmarking we do in volume-wise.

INTERVIEWER: Oh okay.

INTERVIEWEE: The tons we mine and let me just open this up, so here you can see, there is our mine, [Mine name] best, [Mine name] second best, then there is another company and then there is again one of our [mines] and here is a lot of our mines.

INTERVIEWER: Okay.

INTERVIEWEE: So all the blue ones are our mines.

INTERVIEWER: Okay.

INTERVIEWEE: The red ones are other but you can see when you look it up to there, it looks fairly blue.

INTERVIEWER: Yes.

INTERVIEWEE: In the top.

INTERVIEWER: Yes, that is very nice.

INTERVIEWEE: So these are the type of benchmarking we are currently doing.

INTERVIEWER: Yes.

INTERVIEWEE: Yes, I would say on a quarterly basis etcetera.

INTERVIEWER: Okay. Yes, so that is very fine so after that you report it to the management up there?

INTERVIEWEE: Yes, this one is specifically for management. We do not necessarily always work with people on the lower levels.

INTERVIEWER: Because you are also, yes, senior manager yourself.

INTERVIEWEE: Yes.

INTERVIEWER: Okay, that is very nice and I feel that will be very helpful in compiling the report. So do you also use a balanced scorecard?

INTERVIEWEE: Well, again I saw your question, it is, what exactly do you mean by a balanced scorecard? Again, I can show you what we got on a monthly basis. I mean, there are various scorecards.

INTERVIEWER: True.

INTERVIEWEE: We have got one for the business. We have one for the, I am looking over the CTL market. That is the market supply for one of our business units. We got one for the export market. We even rolled it down to say "Guys, in our mining company, financial, so what are you doing? What is your scorecard?" So we created our own, this is our game plan.

INTERVIEWER: Yes.

INTERVIEWEE: These are the actions we need and we have got a scorecard supporting that and also the Mining scorecard …

INTERVIEWER: Okay.

INTERVIEWEE: … and also different versions. Here is one of them. Our monthly meeting, the management meeting …

INTERVIEWER: Yes.

INTERVIEWEE: I think this one was just the wrong way around. Here is a high level scorecard.

INTERVIEWER: Oh okay.

INTERVIEWEE: So you are looking at our customers – so what is the type of coal we, the quality of our coal. This one is competitiveness; this is specifically looking at your costs, profits, etcetera. This part is safe production so it is looking at safety and our production. How are we doing with our production and this is on the morale side, our people side. So it is basically separated into five categories: quality, cost, delivery, safety and morale.

INTERVIEWER: This is very important. So, it is quality, cost, delivery, …

INTERVIEWEE: Safety.

INTERVIEWER: … safety, …

INTERVIEWEE: … and morale.

INTERVIEWER: … and morale. That will fit perfectly.

INTERVIEWEE: I will show you on a monthly basis, contracts, game plan, here is for example, I just hide some of the columns, let me just unhide it. Oh it is actually, here is another one. Mining, year to date, this was now the December scorecard.

INTERVIEWER: Okay.

INTERVIEWEE: Again, you can look at our Mining company. Let me just unhide all of this. I have hidden some of the stuff, unhide. Okay, so you can see our Mining Company again, is those five areas: quality, happy customers

… Just want to see, there is quality, cost, delivery, safety and morale as I mentioned so then you can see quality is regarding our mines and we measure mines and ash. You can see our Mining company, the CTL Business, this was the target budget. These were the actuals, are we red or are we green currently.

INTERVIEWER: Okay.

INTERVIEWEE: And then you can go down to the specific mines, Mine A, Mine B or Mine C or you go to the export business. What do we measure there and how are they doing. And the same here is rand million, cost and then this is unit, this is capital and here we got our unit cost, rand per ton and the same for delivery, we measure the tons and we measure productivity. I do not know, is this what you refer to as a scorecard?

INTERVIEWER: That is exactly what I am talking about because …

INTERVIEWEE: So you can see here, in general, we are not doing that well. in mines, costs, and not doing well at the moment.

INTERVIEWER: Yes.

INTERVIEWEE: But the reds you can obviously see there.

INTERVIEWER: Yes, so because it does fit into what I am looking for this is also customer perspective which you have just highlighted and financial perspective as well …

INTERVIEWEE: Financial and people, our internal people. How are we, how is the morale of our people and we also rely on a survey which is done, this was now the first time we have done this survey, so in many cases, we have not seen the best results so that is why it is basically red, training of our people, we are doing fairly well.

INTERVIEWER: Okay, this is very great. It does cover the aspects that I am actually looking for, everything there. So, in terms of learning and growth, I do believe that you analyse graphs at the end of the day, and actually see where you need to improve and this is what …

INTERVIEWEE: Yes, red, green and yellow, if you close, it’s yellow, if you are not there, it is red, if you are there, it is green. This is how a few areas which we measure and you said people grow and we look at the training days. What the training days, we have got performance management systems and we have got the PDP, performance development plans, which is all part of another process which is not necessarily measured on this scorecard.

INTERVIEWER: It shows that the scorecards you have are also creating a shareholders value at the end of the day, although it can be indirectly impacted, at the end of the day when you look at the improvement within the scorecards of the organisation, you will actually see that …

INTERVIEWEE: The shareholder …

INTERVIEWER: … then your customer satisfaction there, it is also covered because it does show your competitive strategy, the way that you have answered and showed it to me, it does link to each and every aspect of the organisation information that I am looking for.

INTERVIEWEE: Yes.

INTERVIEWER: So, that will definitely …

INTERVIEWEE: So, I mean this is a game plan, this is, you know this is the strategy for our Mining Company.

INTERVIEWER: Yes.

INTERVIEWEE: There is our, what do you call it, vision. It used to be industry leaders in cost, quality and safe production through inspired people.

INTERVIEWER: Yes.

INTERVIEWEE: And again, what we measure here is our strategy to say we need to look at our customers, we need to be competitive.

INTERVIEWER: True.

INTERVIEWEE: We need to do safe production and we need our people. If your morale is not right, we are not going to get anything and then there is a few other legs in there as well but the scorecard obviously measures what your strategy is.

INTERVIEWER: And in turn, this does have an influence on the financial performance of the organisation. It is either going to be good or bad, depending on how you are doing in the scorecard because at the end of the day that is what it drives to.

INTERVIEWEE: Well, it measures the financial results. I will not necessarily say it will have an influence. Obviously, if stuff is visible, if we can see on cost side we are not doing well, it is just reds, so obviously there will be more focus.

INTERVIEWER: True, true …

INTERVIEWEE: So, I will not say directly, the scorecard might not directly have an influence but in being able to identify the problem areas, you can focus on there.

INTERVIEWER: That is 100% correct. Mostly when I look, because this is a semi-[inaudible 18:57] structured interview. The information that I got already is information that is really going to help me a lot. So, maybe we can look, do you also, do you have something like research and development as to how maybe you can improve the organisation going forward or the way you do things currently? Do you have a team that specifically …?

INTERVIEWEE: Do you mean financial or what?

INTERVIEWER: No, no.

INTERVIEWEE: You mean the company? We have got a mining one because obviously it is a mining industry. We have got a whole department, engineering and support, engineering and operational support services …

INTERVIEWER: Yes.

INTERVIEWEE: and I mean they look at research. They will research, the other day they said, I mean obviously on a continuous basis they look at new equipment and they said the other day some other mining research they are doing, I cannot recall now but obviously they look at those kinds of things.

INTERVIEWER: Okay, I do hope that it will also be the people who are looking at sustainability or maybe sustainability will be more focused on corporate governance side of your side in terms of the organisation moving forward …

INTERVIEWEE: Yes.

INTERVIEWER: … yes.

INTERVIEWEE: I mean part of our process also is obviously we do an annual budget every year.

INTERVIEWER: Okay.

INTERVIEWEE: And we actually do two. We do a strategy budget that is really looking at the long term – life of mines – so we look up to 2015. What is the strategy? Are we continuing with mining coal? Are we here looking at underground coal gasification? How are we supplying this factory here? Are we, are our plans in line with what they are currently foreseeing? So that is the long-term strategy and then we also do a ten year strategy. Well, it is basically the same. We get alignment, direction but it is probably also to get the financial side of it, what will it cost us, what will be the returns, those kinds of stuff.

INTERVIEWER: That is very nice, sir. Well, I have almost covered everything that I can summarise and then just add to a report.

INTERVIEWEE: Well, we did not now follow your questions directly but I hope what I showed you, you could have answered most of it.

INTERVIEWER: It is, yes, because these questions, I have designed them in a way that it is a semi-structured interview, I hope …

INTERVIEWEE: You do not necessarily need to go…, okay.

INTERVIEWER: I have to ask you questions based on the answers that we get, then I will combine every information that, taking into account the secondary data as well and then have a final view because this is, yes, a very nice one. These are just guidelines for me when I am sitting with you here, saying will I be able to … yes …

INTERVIEWEE: At least we have answered most of it, but do you think we covered most of the stuff you …

INTERVIEWER: Yes, most of the stuff I have covered, yes, financial performance, it is most of them that we spoke about and then there is financial performance which we covered and then there is also this strategy which will influence decision-making going forward which is stuff that we were talking about which actually led us there because the purpose for us to do the scorecards, the purpose for us to do the, it is actually for us to have a strategy on how are we going to go forward as a business which is really great.

INTERVIEWEE: Well, if you just in terms of the research and development again, I mean our company has got a whole company; they are looking at, well …

INTERVIEWER: Development and …

INTERVIEWEE: Development, research a lot and then also, they are assisting with some of the roll out of projects but I mean there is a lot of stuff going into that.

INTERVIEWER: Okay. Yes, thank you so much. Is there anything that you maybe would like to know from my side?

INTERVIEWEE: What I would like to, if you finalise this, to also get some sort of feedback from what is happening in the industry so then you will be able to come and see me once you finalise this and give me feedback.

INTERVIEWER: Yes, you will get a feedback. Other people I will interview, I will send them the feedback in the form of a journal and once it is approved. hopefully I am planning to, I will be working on interviews until I have to submit in December, then after that but I will give you a feedback. I will come back to you with a whole package, what did I get out there.

INTERVIEWEE: Yes, what is the best practice in the industry, what are other people doing, what we can we improve on.

INTERVIEWER: Improve on, yes.

INTERVIEWEE: Because we have now touched a very high level.

INTERVIEWER: Yes, but that is what I needed more information and then I have to consolidate with the information that I will get from other people out there.

INTERVIEWEE: Okay.

INTERVIEWER: Thank you so much.

INTERVIEWEE: No, thank you, keep well and good luck.

INTERVIEWER: Thanks. You will definitely hear from me.

Participant [2]

INTERVIEWER: I'm currently doing my Masters with Unisa and the title is "Management Accounting tools providing sustainability information for decision-making and its influence on financial performance of an organisation." Now, I want to thank you so much for giving me an opportunity to just go through some, few questions with you so that I will be able to compile my last chapter of the research. Then after that, I will send, in the form of a journal, as to the outcome, once the research is approved.

INTERVIEWEE: Okay.

INTERVIEWER: So getting it in the form of a journal or so, the feedback as to how other organisations are doing it also. So I've interviewed some, quite few people around South Africa, and I'm still doing different companies around SA so to say.

INTERVIEWEE: Okay.

INTERVIEWER: Yes,

INTERVIEWEE: Well like I said, I'm in finance, but I worked in management accounting,

INTERVIEWER: You're like me, I'm also working for finance [inaudible 0:01:59:2]

INTERVIEWEE: Then the other thing to me… I just wanted to clarify, so that I understand it from the onset. You say the role of Management Accounting tools in providing sustainability information, so what do you mean, when you talk about sustainability information what are you referring to?

INTERVIEWER: Sustainability information, it could be information that is reliable, and that is economic viable, it's just information that is, let's say economic viable to an organisation.

INTERVIEWEE: Yeah.

INTERVIEWER: Does it still, does it make sense, and are you still not getting clarity on it?

INTERVIEWEE: I wouldn't use the word sustainable though, because for me, when I think of sustainability, I think of how we are going to continue going forward.

INTERVIEWER: Yes, yes, sustainable on its own yes, because sustainability information, they define it as information that assists organisations to make economic viable, social and environmental responsible decisions towards long term performance of an organisation. So sustainability on its own is actually looking into the future of an organisation, into making sure that the organisation will exist in a long term. So, for the purpose of this study, it will be the information that we'll use, I mean, is Management Accounting relevant today in the environment that you are working in. Do you think is it going to be relevant also in the future? Does it add value to the organisation, to the financial performance of an organisation? That will be some of the stuff that we'll be going through. This will be a semi-structured interview; I won't definitely go through each and every question. It will just depend on what you work on, how you understand things operate within your organisation.

INTERVIEWEE: All right, that's fine.

INTERVIEWER: Okay, so amongst others, basically I am focusing on activity based costing, benchmarking and balanced scorecard. So, around your organisation, are these tools used and in which business unit?

INTERVIEWEE: Well there's [business unit name] which is the overall company.

INTERVIEWER: Yes.

INTERVIEWEE: This is also [business unit name].

INTERVIEWER: Okay.

INTERVIEWEE: This is one of the subsidiaries. We are one of the, not wholly owned, but a major subsidiary of [business unit name].

INTERVIEWER: Yes, so within the organisation as a whole because it's no different from what I've got outside there, because they've got different divisions focusing on different aspects of the business. So within your organisation do you have, do you apply Management Accounting principles?

INTERVIEWEE: Yeah, well definitely we make use of Management Accounting, so the way we structure the financial function is two legs [inaudible 0:05:03:6] financial, which produces your financial statements, you know, your income statement balance sheet etcetera, and Management Accounting that looks more at operational performance so, i.e. you know, if we plan to mine X number of ounces to be mined, those ounces, as we plan to mine them, we also look at managing costs, so we plan to spend X number of money in a month, did we spend that, did we spend more, did we spend less, why did we spend more or less, what were the contributing factors, etcetera, so definitely those are the two separate arms that exist.

INTERVIEWER: That's very nice because when you look, when actual management accountants sit down and analyse that kind of things, it will come back to benchmarking, it's also at the end of the day will also affect balanced scorecard. It could be directly or indirectly within the organisation. So how do you understand ABC, how does it operate, activity based costing within the organisation?

INTERVIEWEE: I mean, what I know is that definitely there has been, from my days as a trainee, that we were working towards definitely making use more of activity based costing but whether, what the level of maturity is in the organisation at this point in time, I cannot tell you but I do think, that we, I wouldn't think it's a fully-fledged function that we make use of at this stage but I do think that there are aspects of it or rather we use it in certain areas but not across the board. So activity based costing is there, but it's not, as far as I understand it to be, it's not something that is across the board, we may make use of it in certain functions within the business as opposed to every function when it comes to Management Accounting.

INTERVIEWER: That's great, and so whatever you mine, do you sell it outside your organisation or do you only sell it within the business units?

INTERVIEWEE: Well, I mean, so we've got external customers so everything that we mine, so there's two things that we do, we mine our own metal, so we have our own mines that we own 100%. We mine from that and we sell to the market, so we sell directly to customers but obviously not, when I talk about customers I'm talking about other companies as opposed to individuals. We also have other situations where we purchase ore from our partners, so we have some companies that we partner with and we purchase the ore from them, so an example is we're in a 50/50 joint venture with someone, so 50% of everything that comes out of that mine is already ours, but the other 50% isn't. We purchase the other 50% then we send it through our processes, our smelting and refining operations and then because we've purchased it, it's now ours and we sell it.

INTERVIEWER: So do you, is it only, do you export as well?

INTERVIEWEE: Everything, in fact the majority of our stuff, very little stays in South Africa. There is, there are some customers that we sell to in South Africa but in comparison to the total, let's say if we had to look at our total revenue base, I would say at least 80% is sold to parties outside of South Africa. And then those that we sell to in South Africa they may in turn, maybe, might do one or two things to it or they might, you know, whatever, and they onwards would sell it themselves externally.

INTERVIEWER: Oh, okay.

INTERVIEWEE: Yeah.

INTERVIEWER: Now, that's very nice. And then in terms of pricing do you have a specific division that focuses on price in terms of pricing what you mine, as to how you're going to sell them.

INTERVIEWEE: Are you saying … are you talking about who determines the cost of the product or who determines the selling price?

INTERVIEWER: The cost, yes.

INTERVIEWEE: The cost, we do have what we call a metal accounting function that manages two things really. It manages obviously the physical flow of ounces, because the nature of the process is such that you can't touch it every step of the journey. When you take it out of the ground it's in a rock, you've got to then get it out of the rock, you've got to smash the rock and concentrate it and then you've got to go and smelt it and then you've got to an refine it. So I can't touch it from one point to the other. It only becomes physical, something you can touch once you've refined it. And so what we have is a metal accounting process that tracks it through that process, that's how we keep track of the metal through the process but as a part of that process or as a part of tracking the physical ounces as they move from underground or rather once it's been taken out under the ground, once it's refined, we also track the costs that are then allocated to that so if I took out 100 tons of whatever out of the ground, then I would then go and measure the total cost of let's say the shaft that it came out of and let's say that shaft did 1000 tons so obviously total cost divided by 1000 gives me a cost per ton, and then I'd allocate the cost to those tons. And then as it moves through the process it obviously incurs additional costs and the costs get allocated to it accordingly. So it's a combination of not just tracking the actual metal, you know I had 10 ounces there but as it moves through the process I expect a little bit of loss just because of the nature of the process, you might lose 0.05% and when you smelt it you lose some more again but that's all expected but that's also, as part of the process we also track the costs.

INTERVIEWER: Do you count it as loss because you are mining it yourself and then?

INTERVIEWEE: It's a loss in the sense that it's part of the process but it's not a loss so at the end of the day the total cost gets allocated to what gets refined at the end so it's not like I'm going to be writing off some of the costs as being unrecoverable but it is a loss because if I started out with 10 ounces or I know that there's 10 ounces but based on my estimation, so I estimate there's 10 ounces, but due to the nature of the process I expect to lose 0.05% all through the process, so effectively I will only have 9.95 at the end. So I've lost 0.05 but it's not a loss per se because it's part of the process.

INTERVIEWER: So in terms of benchmarking, how does the organisation do their benchmarking?

INTERVIEWEE: With benchmarking again, obviously there's two forms of benchmarking. There is internal benchmarking where we benchmark operations with each other. And then there's external benchmarking where the company as a whole would benchmark itself with other companies so let's say our competitors. So the external one is harder because it depends on the availability of the information to do the benchmarking but definitely internally we do a form of benchmarking, how mature it is, I'm not sure but from what I remember we compare, and if I just think about, let's say our processing operations, we've got various concentrators across the group, and so obviously we would compare each concentrator based on how many tons it mills, and at what efficiency it mills, there's various ratios and factors that we use to measure efficiency for these operations and we would then measure to say this concentrator did it at this level and that concentrator did it at that level, until you identify let's say the best concentrator and you would want to understand how is it that that concentrator is able to achieve it at that level and the rest aren't, and that's the form of benchmarking that we do.

INTERVIEWER: I do believe some organisations might have people just focusing on comparing function within the other organisation but some organisation might only do it once a year or quarterly or.

INTERVIEWEE: Well I mean for us its part of the normal monthly reporting. So we'd be comparing operations on a month to month basis as part of normal monthly reporting.

INTERVIEWER: And if you find out that other organisations are doing it better outside there so do you implement or do you send people to…

INTERVIEWEE: Like I said I think the external benchmarking is hard because it all depends on the availability of information because our competitor may not necessarily want to be releasing information about how their operations are doing and some of their statistics. So the easiest available information is that which you find in the annual report, but often you won't get much. So the only other form of benchmarking you could, external benchmarking, you could probably then make use of is if you were to go and visit their operations or they were to come and visit ours and then you learn from what they are doing. So that's the only way but you will not get it just like that. You would have to arrange it and all of that. So that's something that doesn't happen too often, if at all, from my understanding.

INTERVIEWER: So on that monthly report can the people responsible, do they present it to the management, to the senior management and then…

INTERVIEWEE: I mean, yes, it's definitely something that, let's say we've got an executive that looks after, so we have an executive that looks after mining, an executive who looks after our processing and an executive who looks after our joint ventures so they would definitely be, that's the kind of information they would want to see, for example which concentrator is outperforming the others and why and the mining executive will want to see which mine is hosting the most tons and why. What is that mine doing that the other mines are not doing, for example.

INTERVIEWER: And they use that information to determine the sustainability of the organisation going forward.

INTERVIEWEE: Definitely they use that information to make decisions about what they need to do to become more effective and more efficient. So it ultimately comes down to them saying, okay, so now I know this, what do I do about it. If this operation is better than the others, what can I take from this operation and implement to the rest so that inherently all the operations perform at their best.

INTERVIEWER: So at the end of the day it does have influence on the financials of the organisation.

INTERVIEWEE: On the decisions taken, yes.

INTERVIEWER: Okay, great. Do you use balanced scorecard either internally or externally depending on your customers, your financial perspective?

INTERVIEWEE: That one is difficult for me to answer, I've heard of the term and I've heard of the term being used in the company but the level or extent to which we actually use it as a form of either decision-making or a form of reporting, I'm not too sure.

INTERVIEWER: Okay, like do you have maybe a department that focuses on customer satisfaction at the end of the day? Like when you sell to clients out there. Do you just sell or do the other people say actually you know what, they are open, would you have a place where you can raise concern if you are not happy?

INTERVIEWEE: Well, I think for us, because again the number of customers is limited. If we have more than 20 customers, that's a lot, or let me say 20 consistent customers, that's a lot. We don't sell to a wide range of customers.

INTERVIEWER: Okay.

INTERVIEWEE: And so what that does is then the relationships that the people that, our commercial team that sells to these customers is a very closed one, so we wouldn't have a separate function that looks after customer satisfaction, it will all be part of the marketing / commercial function. So the very people who then set up the deals or the contracts to sell to XY party, those very same people would be the people that the customers would raise concerns if they had any concerns. It's just the nature of what we sell and the way we sell it.

INTERVIEWER: It is quite complex in many organisations even big like you as it is because you have many divisions, like [company name] as they are, they've got divisions and within each division they have got management accounting that focuses on other aspects, they've got management accounting that focuses on personnel, only labour cost, and others focusing on what they are producing in the mines so it becomes more complex within the organisation but what's more interesting is wherever I'm going I'm finding out that they actually have Management Accounting to actually manage the cost.

<u>INTERVIEWEE</u>: I think you will find Management Accounting particularly in industrial organisations so like mining, manufacturing, it plays a big part especially on an operational level and I can talk specifically to us. On an operational level, you find more management accountants and financial accountants. Financial accounting is generally a function that you would find at a corporate office like this one or a more centralised function where they do centralised accounting. You very seldom find financial accountants at an operation and when I talk about an operation I'm talking about, for us it would be a shaft or a concentrator or a refinery, those kinds of things. There, because there it's about managing the cost and it's about reporting the performance of that operation upwards, up into the structures here and let's say the corporate office so it ultimately reaches the desk of the executive.

<u>INTERVIEWER</u>: Okay, no that's great so do you have a department that focuses on research and development?

<u>INTERVIEWEE</u>: We do, we do have, I don't know if you want to call it a department, but there is, I know the individual and there are some people who sit within his structure but I wouldn't, it's difficult to call it a department because it actually forms part of another department. Look, the bigger [company name], we can talk about Platinum and we can talk about [company name], the bigger [company name] definitely has a research facility that they have which is in Crown Mines and also something in Germiston where they do a lot of testing in laboratory and stuff like that whereas and so Platinum specifically doesn't have a department. They've got some individuals that form part of research and development and that forms within our process function but what Platinum does is it relies heavily on the research function of [company name], the greater [company name]. So Platinum on its own, no but in the bigger [company name], yes.

INTERVIEWER: So overall when you look at the financial of the organisation, would you say the Management Accounting tools, are they playing a role in terms of decision making? Are they playing a role in improving financial performance of the organisation?

INTERVIEWEE: Look I think for us and this is also from my days and I think it's still an issue, I think the problem with us is we got bogged down, the Management Accounting function gets bogged down in the actual process of reporting, i.e. generating the reports, the various reports. We produce reports to no end but what we often find is whether there is any use to it because this book, you know we can have a report this thick but who is going to look at it?

INTERVIEWER: True.

INTERVIEWEE: So for us, definitely Management Accounting is relevant and it plays a part in the decisions we make but the function itself, the Management Accounting function itself could be more effective if the reporting function of, the reporting arm of it was more streamlined whereby we only report on key matrix or key statistics or key ratios, whatever you want to call it, operating indicators, and then we spend a little bit more time analysing the cause either for an improvement or a decline as opposed to just producing reports of ten, 20, 30, 40 pages long with graphs to no end. It's all good and well but you need a whole day to go through it and then by the time you've gone through it, you don't know what the issues are because you first have to go through it, but if you focus on the key issues and you reduce the number of reports so reducing the number of reports that you produce as well as focusing on the key matrix, I think that will improve the function particularly in this company.

INTERVIEWER: I do understand what you are actually saying because even when I started working that's what we used to do in my company, my first year working with management reports and everything. It's actually like the bigger the organisation is the more complex it becomes because at the end of the day it goes like and it needs to be consolidated for the organisation to continue to exist in future. So do you, within the organisation itself, do you think the sustainability of the organisation in terms of the information that you are getting, how do you foresee it?

INTERVIEWEE: Meaning?

INTERVIEWER: The sustainability of the organisation based on the information that you're getting from Management Accounting people?

INTERVIEWEE: The sustainability of the organisation is not, in my view, not so much a function of the information we get or report, it is more a function of the executives, what kind of decisions they make based on it.

INTERVIEWER: One hundred percent.

INTERVIEWEE: So it's all very well for me to report information to them but it is the quality of decisions that they are making based on that information. The next thing to argue is, oh well, they can only make quality decisions if they get quality information. So if we, for a minute, just assume that the information is of a high calibre of the exact nature, then definitely the sustainability of the organisation is ensured. I would think that for us the issue is not, in our case, the issue is not the quality of the information, it's there and it's there in leaps and bounds, it's the level of decisions we make based on it.

INTERVIEWER: On the information, how you utilise it. Yes, that's very great.

INTERVIEWEE: And that's why I say if we can get to a point where you focus on key matrix and focus people's attention on the key factors, that's how you ensure quality decisions because if you are just going to be producing reports for the sake of producing reports you are not achieving anything because if people have to look through the thing and by the end of the day they still don't know what's going on, then you're not achieving any objective.

INTERVIEWER: I did get a lot of information that I will utilise, I will still also go use secondary data that I'll get from the websites and then actually compile everything with all the other stuff of the organisation. I want to thank you for the time, I think it even took more than 20 minutes or so, and thank you for your time and agreeing to meet with me. This information will be treated confidential at the end of the day and you can go through this consent form and you will also notice there, on that one that yes, it will be confidential but once the results are consolidated and once the research is approved I will definitely get back to you, and thank you so much for your time. And then hopefully, yeah …

Participant [3]

INTERVIEWER: So I will be recording that information so you can see here, these are the people that I am also busy trying to get interviews for my Master's. So yeah, some of them I have already done. I am still busy with the other ones. So I have already shown you the ethical clearance as well as the consent form that everything is going to be kept confidential. That information will be consolidated into one research paper, so to say, and then after this interview, when everything is completed I will also send a journal to you as a form of, umh, I will send a journal to you as a way of showing you what are the outcomes that I have received from other companies.

INTERVIEWEE: Okay.

INTERVIEWER: So thank you so much for taking time to meet with me. I know it has been a hectic day for both of us, taking into account that we were busy throughout the day, some of us it's half year and all those kinds of stuff. So the title of this research is Management Accounting tools providing sustainability information for decision-making and its influence on financial performance of the organisation. So at the end of the day I want to find out if Management Accounting is relevant in the world that we are in today and if it is relevant, what are the principles that other companies are using. Then I am going to consolidate all this information with the information I will get from other companies and see what conclusion I can draw from that, so it's going to be in a form of interviews and I will also use some documentary reviews, so as I have said, I have already started with other companies and other interviews also on line with other companies. So I know you are working for [company name] now and you just resigned. Which company are you with now?

INTERVIEWEE: [company name]. It is an investment company.

INTERVIEWER: Oh, okay

INTERVIEWEE: Yes

INTERVIEWER: Okay, so we will just work on the information from your prior company because you are just here for like, you are here for two weeks, ne? Yeah, we are just going to work this one on the information that maybe you have received from [company name] and then how you experienced it. So in terms of their Management Accounting tools, which Management Accounting tools are they using? Do they use activity based costing, benchmarking, or balanced score card?

<u>INTERVIEWEE</u>: Activity based.

<u>INTERVIEWER</u>: Activity based, okay so they do use Management Accounting tools, so you do have Management Accounting division or department?

<u>INTERVIEWEE</u>: It is something that is recent though, they've, basically what they have done is, we were having some issues, especially with explaining our yield variances, all the stuff that comes from our factory is in terms of yield variances, PPVs (Purchase Prize Variances), and all that stuff. There has always been an issue in terms of how you explain it, what is causing it, because there was no, they didn't have people that were sitting in our factories to say, to analyse all that sort of stuff.

<u>INTERVIEWER</u>: Okay.

<u>INTERVIEWEE</u>: So what has been happening is that us in finance, we ended up having to explain it at the end of the month to say what is going on and then it is after the fact, then most of the time it doesn't, you will find that the issue was the same issue every month, every week of the year, so basically today you have an issue with, you are not getting the yields you need to get because of maybe there is a bit of clumping on the machines, but because you don't analyse those things on a daily basis, what ends up happening is that those things keep going on and on and on for two weeks until somebody says that why are the yields so bad. Then only you fix them, but if you have got someone who is a management accountant there, in that factory, then on a daily basis they are analysing those things. They are seeing where the problems are and then talking to the right people to try and sort of see if they can solve them, and what are the issues, and sometimes it's just a simple thing that the machine is old. You need to replace the machine, but if you don't have someone that is there, you see it too late, especially if you rely on people doing sort of manually reporting to give you that type of information. Sometimes it is just too late.

INTERVIEWER: Okay, so you said it is just recently implemented, so they are still in that...

INTERVIEWEE: Probably about four months, four months, five months now.

INTERVIEWER: So the fact that it is there actually they do see the value in terms of...

INTERVIEWEE: It is not a doubt. It's, I think especially if you are a manufacturer. In manufacturing there are a lot of things that go wrong.

INTERVIEWER: Yeah, yeah.

INTERVIEWEE: And you need someone, one thing you must understand is that there is, within a factory you are going to have a lot of operational people, production people. The things they are interested in and the things that a person that looks at the stuff from a financial point of view, they are two completely different things. They just want to produce.

INTERVIEWER: True. That is what is actually happening without taking cost into account because that is what actually what they based on.

INTERVIEWEE: They will, especially with stuff like, people now have got performance contracts.

INTERVIEWER: Yes.

INTERVIEWEE: And especially if you put your performance contracts, then there must be a line to what the organisation is trying to get to.

INTERVIEWER: Yes.

INTERVIEWEE: So most companies, what they will do is, they will say, you are manufacturing. You must worry about making sure there are products to sell, and they forget that that person that manufactures also affects costs, so they must be accountable for cost as well. They must be accountable for variances that come within the factory. So the overall factory, they must be responsible for, not just the factory manager. All the production managers must be responsible for costs; they must be responsible for yield.

INTERVIEWER: Okay.

INTERVIEWEE: So ultimately what it ends up being, because it will affect his bottom line, he will worry about the costs too, otherwise he is just going to worry about am I producing enough.

INTERVIEWER: Okay. That is very true because at this early stage when you talk about activity based costing, when we talk about cost, automatically it does have a direct influence on the financial performance of the organisation. So during your time there, did you find the information useful? Was it starting to make progress, or was it having an impact on your financial? Was it improving either your cost?

INTERVIEWEE: Actually, when I was there, the reason that they put the guys in the factories is because it was adversely affecting our results. Our gross margin was good, the cost was going up, which means that the cost of the product was starting to go up to a point where our margins were decreasing, and they were decreasing quite quickly.

INTERVIEWER: Okay.

INTERVIEWEE: That is why they decided, I mean we've got our mini factories, we have four factories.

INTERVIEWER: Okay.

INTERVIEWEE: Probably in those four factories they hired a management accountant for all the factories. They hired a guy who was in charge at an executive level, who was going to be in charge of all the costing type of environment and all the finances within the factories.

INTERVIEWER: Okay.

INTERVIEWEE: That is how important it was. It got to that point that because we were not paying enough attention to the factories and the management accounting of it, they, what do you call it, the cost within our factories. It got to a point where we had to hire, I think all together you will probably find the salaries of all these people all together was almost four million. That is how important it got.

INTERVIEWER: Yeah, it is quite a big number so to say.

INTERVIEWEE: Yes.

INTERVIEWER: What I like about it is the fact that, you know what, we just here in this question and already you already have answers that I mean it is the decision that came from the management. They saw that the impact that it was having within the organisation in terms of affecting financial performance, so to say, and they did implement something like this and then it's Management Accounting which does show that Management Accounting is becoming relevant, especially when we talk about activity based costing, because we need accurate product costing because that is where it starts.

You need to make a decision that stays so you minimize cost so that you can get higher profit at the end of the day.

INTERVIEWEE: Yeah, the other thing is that most people, what they do is, that they focus too much on the manufacturing side of things.

INTERVIEWER: Yes.

INTERVIEWEE: You forget that manufacturing…, the only thing that manufacturing does is that if you are focusing on manufacturing, you are focusing on the labour and the overheads.

INTERVIEWER: Yeah.

INTERVIEWEE: Because that is all you can control in manufacturing, and the yields and all that, but ultimately it's led by its overhead, but they forget that there is inputs that come within the factory.

INTERVIEWER: True.

INTERVIEWEE: You have to get raw materials that are going to come within your factory, managing that, renegotiating with your suppliers and making sure that the inputs that are coming through, that they are the lowest prices. That is also critical in our organisation, so managing your procurement, it is critical.

INTERVIEWER: Yeah. So that just shows that, you know what, in the long run, like an article that I read not long ago, Management Accounting is actually relevant because it is actually focusing on the future as to how the organisation can remain sustainable and profitable in the long run, rather than the financials where we actually determine the financial result. So this is the link, the purpose for this is actually getting a link between Management Accounting and financial performance of an organisation, but we can really see up to so far that you know what, with accurate product costing, it definitely have a direct influence in the financial performance. You get it right from the bottom, in manufacturing, when you get raw materials, you allocate cost wisely, then you will get a better result as time goes on, which is very great. So have you ever done benchmarking with other companies?

INTERVIEWEE: Mm.

INTERVIEWER: They do the same thing, so in terms of benchmarking, do they do benchmarking to actually see how other companies out there, in the same line of business, are doing, or do they, some people prefer to do benchmarking with different companies not in the same line of business.

INTERVIEWEE: No, there is no other, I am sure there is a gap to that point because what has become very clear, especially when you do business with the government, when you start doing tenders...

INTERVIEWER: Mm, mm.

INTERVIEWEE: Because when you tender, you tender for the same products, but, so I will make a simple example for you because it's public knowledge, like ARVs. ARVs are big.

INTERVIEWER: True, true.

INTERVIEWEE: They are very big to a point where we are talking about between four to six billion that the government spends every two years on ARVs. So what happens is that if, let's say for instance you have a tender in at 15, and [company name] is tendering at ten.

INTERVIEWER: Yeah.

INTERVIEWEE: The reason that [company name] is tendering at ten is because they know that the cost to produce a product is two rand. Yours is ten rand to produce a product.

INTERVIEWER: Yeah.

INTERVIEWEE: So that is why they got to a point where they started looking at putting structures in place to say that they want a management accountant. They want someone who is the column supply chain finance executive.

INTERVIEWER: Mm.

INTERVIEWEE: Because what is happening is that if you start comparing yourself for tendering, you are realising that other companies are tendering at very low prices, which means that their cost must be low, which means that they are doing something well that you are not doing. Even though you are not benchmarking, it's becoming quite evident that your costs are actually much higher than everyone else's because they are able to tender at much lower prices than you are.

INTERVIEWER: That is very true. I just have an example. When I was interviewing this other guy at [company name], you know, they produce their own coal, so for them to produce oil and petrol and everything is actually quite cheaper than finding someone in [company name] were they to get it outside, where they have to pay for the cost of that so that is the same example there, where you actually see that, you know what, cost of production on the other side, that is benchmarking. It actually shows you, let's say, when people actually do benchmarking it is actually a matter of saying, okay, are we doing it better than the other company? What can we do to improve? So I see the ways the organisation is and definitely in the long run you will see that because something like benchmarking and balanced scorecard is something that you can do once after, once in a quarter or every two months, depending on the organisation. Some, they only do it once, some they do it monthly, on a monthly basis because they have got capacity like people to actually focus on that. So anything like in terms of balanced scorecard, balanced scorecard I know is quite broad in terms of your customers. You can either tackle it from financial perspective, learning and also growth. What do you have that side?

INTERVIEWEE: Benchmarking?

INTERVIEWER: Balanced scorecard.

INTERVIEWEE: Balanced scorecard.

INTERVIEWER: Balanced scorecard is like any scorecard that you use, you know, like it can be like your customer satisfaction, your financial perspective, within the organisation do you have a department that focuses maybe on customer relations? Do you have a department that maybe focuses on innovation, in learning and growth? You know...

INTERVIEWEE: Yes.

INTERVIEWER: Let's give an example at [company name] they have got a certain department called [business unit name]. It is actually for technology. So what those guys do is, they are engineers that actually focusing on developing new ways of doing things, so specifically what they do is like research, basically on how they can improve their organisation.

INTERVIEWEE: Okay. You see it's, within every department what you do is, you are going to have people that look at improving things, like if you are looking at the manufacturing side, they've got like, what have they got, they call them engineers. What do they call them? Industrial engineers...

INTERVIEWER: Okay.

INTERVIEWEE: Every factory is going to have an industrial engineer and what they basically do is that they will look at especially your machinery type to see if your machinery is still relevant. Is your machinery still giving you the output that it should be giving? Is there anything out there that is better to be able to give you better output?

INTERVIEWER: Okay.

INTERVIEWEE: Okay, and then if you are looking at something like marketing, if you look at marketing, marketing looks at how can they do innovations in terms of the products they have now, do variations, let's say for instance if you got a bio-plus. You have got a Bio-Plus Strawberry, if we do a Bio-Plus Apple, will the market receive it well, and how long will it take, and they do those sorts of projects to say if we do this, how would that affect the sales? How would that do, and how would that affect our factories because you must remember, the more output you put, the more you move through your factories, the less the cost, because if there is more volume going through your factories, it means that your costs are getting divided by a lot more units.

INTERVIEWER: Mm.

INTERVIEWEE: Less than what you have budgeted so your costs come down. So that also helps in the factories in terms of, as marketing comes up with new innovations of new products they can put into the market, that also brings down the cost of the products and that is basically what marketing does.

INTERVIEWER: Yeah.

INTERVIEWEE: And then from a human capital point of view, what you will normally do is that every year you will try and see if you can get new graduates that come through in all facets of the business and manufacturing, pharmacists, just so that you train them, so that instead of getting skills that are already expensive, you train your own, and then as they graduate and they finish their sort of year of training, then they can fit in within the organisation. They might be cheaper than somebody that is coming from outside that you will land up having to pay four times what you need to pay, while someone that is a graduate and you trained themselves, they understand the organisation because you trained them.

INTERVIEWER: Yes.

INTERVIEWEE: But now when you make them permanent they are not as expensive as someone that is coming from the outside.

INTERVIEWER: This is reducing the cost.

INTERVIEWEE: Yes.

INTERVIEWER: Yeah and then that will also improve the profit of the organisation.

INTERVIEWEE: But the skills are still there because you spent the time to actually train them.

INTERVIEWER: Train that person. Yes, so I see many organisations are going that route of actually...

INTERVIEWEE: But the biggest problem with most organisations is that they train people. You see, it's like one of those things that it's good and it's bad, because what the government is doing is that they are giving companies an incentive to say, if you train we are going to give you tax breaks, we are going to give you this...

INTERVIEWER: Yeah.

INTERVIEWEE: People tend to do it for the tax breaks and they forget that, because what it ends up, it means that if they take 15 people who will graduate for a year, they are going to end up getting tax breaks, let's say of six hundred thousand, eight hundred thousand.

INTERVIEWER: That's what...

INTERVIEWEE: And what they do is, at the end of, saying that instead of recognising that we've got skill that we've spent a year training, instead of saying let's keep that skill and on top of that eight hundred thousand, you've got double benefit.

INTERVIEWER: Yeah.

INTERVIEWEE: They see it as, train, let them go. Train, let them go, and you lose that part of it, and you end up missing the point because that brings down your cost because you don't have to keep getting experienced people that are expensive.

INTERVIEWER: True. I have also seen similar things like that in one of these big four companies where it's about those kinds of benefits. So what I see here is very useful information that will actually, that links you know, all these organisations that I have been through. It actually links to what I am actually looking for, so there is this kind of, okay like in terms of creating shareholders, value, customer satisfaction, have you seen any improvement based on the

Management Accounting tools that they have just applied?

INTERVIEWEE: In terms of the customer satisfaction?

INTERVIEWER: Yeah, or maybe even shareholders' value, like I don't know how we can measure it, either using shares, I don't know if that is going to be the relevant [inaudible 19:27] one.

INTERVIEWEE: See but it's a bit difficult to say shareholder value because what's happening here, what is actually happening now is that, you know all the things have been happening within [company name] is they are busy trying to buy them and as a result the share prices moved up...

INTERVIEWER: Yeah, but on the, yeah...

INTERVIEWEE: But it wasn't driven by the results of the company, it was driven by the fact that there are a lot of companies that are looking to buy [company name], so I'm just struggling to see in terms of customer satisfaction and tying that back to Management Accounting.

INTERVIEWER: Mm.

INTERVIEWEE: The only thing that you can say, it's probably instead of saying customer satisfaction, is probably an internal customer satisfaction because you must remember, as a manufacturing unit or as Management Accounting, your main customers will be sales guys, will be marketing guys, the product that they sell in that there are less people that are complaining about things that come back.

INTERVIEWER: Mm.

INTERVIEWEE: Rather than actually the external customers because external customers will also deal with the customer service department...

INTERVIEWER: Yes, yes.

INTERVIEWEE: …of the company which is more linked to sales and marketing.

INTERVIEWER: Mm, mm, I see that.

INTERVIEWEE: So I guess that in putting together a management accountant and all those people, there is better information flow that is one.

INTERVIEWER: Okay.

INTERVIEWEE: In terms of manufacturing, if they are not manufacturing something, they will be able to understand and then the information flow to the sales people, to say why is something not getting produced? Why are you out of stock? Why are you having clumping? Why are you having issues with production?

INTERVIEWER: Mm, mm.

INTERVIEWEE: Those sorts of information will flow better if you've got management accountant because they are there. You must understand, people that are financially inclined, their information is better than operational feedback, so in that sense you are going to have, that is where customer satisfaction comes from in that you will have better information flow.

INTERVIEWER: Mm. With other people I have experienced that they actually said the problem with management accounting they are experiencing is the fact that...

INTERVIEWEE: Just give me a sec.

INTERVIEWER: Okay, sorry.

INTERVIEWEE: You want to pause it?

INTERVIEWER: No, no it's fine, I have to continue, its fine we can just... Okay.

INTERVIEWEE: Sorry.

INTERVIEWER: No, no it's fine, I was saying that I am seeing that, you know what, with the other companies' people, like in companies like what I have got in [company name]. They say that the information they get from management accountants is actually lots of reports, and then they don't actually have time to analyse each and every one, and then they do not have maybe support from the executives, you know, in terms of implementing maybe what has been suggested there. So in your situation, did you get support from the highest decision-makers in terms of tools that they are using for management accountants?

INTERVIEWEE: I think...

INTERVIEWER: Or were there reports that information that you were getting, were they useful?

INTERVIEWEE: But what you must remember is that people tend to use stuff like that to say we get too many reports.

INTERVIEWER: Mm, mm.

INTERVIEWEE: But what you must remember is that I might send you ten reports...

INTERVIEWER: Yeah, yeah.

INTERVIEWEE: You might find that one, there is only one that's relevant to you, but it doesn't mean that the other nine is not relevant to someone else.

INTERVIEWER: Yeah, yeah, I got the point.

INTERVIEWEE: So what tends to happen is that people tend to; you will find that the management accountant is doing a yield variance report.

INTERVIEWER: Mm, mm.

INTERVIEWEE: That's probably very important to a production manager because he wants to understand where he is losing money.

INTERVIEWER: Sure, sure.

INTERVIEWEE: But it might not be important to, um, a marketing person because they don't care. They just want, they get the final product and that is all they care about, but a marketing person on the other hand wants to understand why they are not getting their products and they are running out of stock.

INTERVIEWER: Yeah, yeah.

INTERVIEWEE: So they will look at issues around why stock is not coming.

INTERVIEWER: Mm, mm.

INTERVIEWEE: So they will look at only that report. I find for me, what I have realised is most people tend to use words like that, that we get millions and millions of reports while, but if you go a bit deep and you ask that person, do you not use any of the reports you get, you will find that they use two only.

INTERVIEWER: Yes and that is something that opened my eyes, that you know what, there are different reports for different purposes.

INTERVIEWEE: Yes.

INTERVIEWER: Which are related to different divisions.

INTERVIEWEE: Yes.

INTERVIEWER: And that is very great.

INTERVIEWEE: So it might be that you are producing a lot of reports but you probably find that the reason that you are producing that report is, even if it's one person that uses it...

INTERVIEWER: Yeah.

INTERVIEWEE: It's a relevant report because there is someone that uses it to make decisions every day or every month.

INTERVIEWER: Mm, and decision-making is one of the very important steps of what they are doing.

INTERVIEWEE: That is what it is.

INTERVIEWER: With this information that I have got here, I am definitely one hundred percent certain now, with what I have done up to so far, that you know what, Management Accounting is relevant and it does have direct influence in financial performance of an organisation as well as sustainability of an organisation because the information that I am getting is, you know what, when it starts with the raw material, if that doesn't get managed effectively then it will have an impact on the cost, then when you do your production up to the last stage, where you sell the products. So it does have direct influence on your profit in your organisation.

INTERVIEWEE: Yes.

INTERVIEWER: So I would like to thank you so much for the minutes given to me for this, and then that is going to be very useful when I compile. So as I said, once this gets approved, once my research is done and approved, you will get feedback in terms of a journal or dissertation, whatever will be decided and then you will get to compare how other organisations have been out there, and yeah, many thanks for your time.

Participant [4]

INTERVIEWEE: Ja.

INTERVIEWER: Okay. Thank you so much, for taking time to, to assist me with this. So, I want to explain to you, as, I said via the e-mail, that um, this is for research purposes and nothing else, ne?

INTERVIEWEE: Okay

INTERVIEWER: Ja, I'm currently completing my Master's in, in accounting sciences, my major is in Management Accounting. So as a result, I have to do a dissertation and then I have to um, do semi-structured interview, like what we're gonna go through right now, so to say…

INTERVIEWEE: Ja.

INTERVIEWER: There are few questions that I would like to get some information from you. At the end of the day I will consolidate this information with other information that I got from other people, so I've done interviews with a few companies already, I've done companies like [company names], from [Inaudible 0:00:52], so I still need more information. That's why I've um, requested you to do this interview with me.

So at the end of the day, once everything is done and then finalised I hope to come back to you with feedback as well. So like, ja, like I said, uh, information is confidential according to UNISA guidelines.

INTERVIEWEE: Right.

INTERVIEWER: So um, I've got few questions ne that I need to find information from you. I'm aware that some of them might not be applicable to you, but whatever you have, the information that you know, it will be very useful. Like um, I'm gonna be asking around, regarding Management Accounting tools, like activity-based costing, benchmarking and balanced scorecards. Those are the three tools that I'm more focused on. So currently, what I want to know from you is, if your organisation does use uh, activity-based costing?

INTERVIEWEE: Ja, ja. I'm listening to you.

INTERVIEWER: Oh okay. Yes.

INTERVIEWER: Ja I want to know.

INTERVIEWEE: You are asking, you are asking.

INTERVIEWER: Ja.

INTERVIEWEE: You are asking if whether we are using uh, activity-based um, costing, right?

INTERVIEWER: Yes.

INTERVIEWEE: Ja, I think that that question is not in my area.

INTERVIEWER: Yes, okay.

INTERVIEWEE: Um, so no, nothing, nothing. I know what activity-based costing is, but…

INTERVIEWER: Yes, okay.

INTERVIEWEE: Ja.

INTERVIEWER: And I understand, because most of them you'll find uh, you'll find that ABC is not the principle or tool you use, so benchmarking?

INTERVIEWEE: Yes, we do use benchmarking.

INTERVIEWER: Okay.

INTERVIEWEE: Ja.

INTERVIEWER: And then what's your information regarding benchmarking? How do you conduct it if there's something like that?

INTERVIEWEE: We look at, we look at, uh, okay if this thing is just more like an individual kind of situation, right? That we take.

INTERVIEWER: Okay.

INTERVIEWEE: For instance, if we taking a reason for the [first time? 0:03:09], we might look at the business results and compare in previous years and we benchmark with each other [Inaudible 0:03:13].

INTERVIEWER: Ja.

INTERVIEWEE: Perhaps we could take it out and so forth; you know what I'm saying? Of the stock market. Sometimes you could take the highest of the 12 months to encourage better results. You understand?

INTERVIEWER: Okay.

INTERVIEWEE: Ja, that's when you want [Inaudible 0:03:27] efficiently and stuff. Mhhh.

INTERVIEWER: I'm also making notes? Ja, ja because oh okay, no I understand. Okay. So hmmm, also we can do that on, on benchmarking still. So do you find the information uh, reliable? Does, does it add value in what you're doing?

INTERVIEWEE: Ja, it does add value in terms of, we, we benchmark, for instance um, for instance, [Inaudible 0:04:03]. Uh, ja we, we, how can I say? We benchmark like we, we use last year's results to get in, to try and, and encourage uh, better results from the previous year.

INTERVIEWER: Okay. Okay. Obtain, okay. Of work in the current year. So, okay, because like, I'm gonna ask you this question respectively, so we're done benchmarking. So the information that you, you, you obtain when you do the benchmarking, so it does help you, the way you're saying, that it does help you to make decisions, regarding the future, ne?

INTERVIEWEE: Right.

INTERVIEWER: Okay. So in terms of financial, does, does it add any financial gain?

INTERVIEWEE: Yes, because market benchmarking…

INTERVIEWER: Yes.

INTERVIEWEE: Benchmarking, we're looking, we're looking at, at, at productivity [Inaudible 0:05:06].

INTERVIEWER: Ja.

INTERVIEWEE: And we're looking at, we're using uh, something called PLUSS.

INTERVIEWER: Okay, the PLUSS, okay, ja, ja. Make it clearer. Then does it really add value uh, to finance either directly or indirectly. Then it's great. [Inaudible 0:5:32]. So yeah. No, that's great. So have you ever, do you know about balanced scorecard?

INTERVIEWEE: Yes.

INTERVIEWER: In your line of business how do you apply it?

INTERVIEWEE: Um, we use PLUSS. Which stand for: **Productivity:** This involves standardisation of business processes; improving productivity and embedding productivity through waste reduction. **Life:** This embraces and harnesses diversity, team engagement and wellness and also building competence through training and development. **Unit cost**: This embeds appropriate and contextualised unit cost drivers. **Safety:** This ensures that there is no harm to employees. **Service:** This ensures that service is rendered in accordance with the agreed service level; effective integration and good governance. I will also, also email you more details.

INTERVIEWER: Yes.

INTERVIEWEE: In the application of PLUSS. We use the balanced score card um method to, to come up with PLUSS. You understand that, right?

INTERVIEWER: Ja.

INTERVIEWEE: Then you're gonna have stuff, certain things are going to be productivity, certain things are going to be financial, certain things are going to be um, you know, we call it PLUSS [Inaudible 0:06:12] right?

INTERVIEWER: Yes.

INTERVIEWEE: But more human resources side, okay?

INTERVIEWER: Okay.

INTERVIEWEE: Um, and certain things that state that balanced scorecard.

INTERVIEWER: Mhhh. Okay so you…

INTERVIEWEE: So again…

INTERVIEWER: Mhhh.

INTERVIEWEE: Sorry, no you can go ahead.

INTERVIEWER: Oh okay, no, I was asking you, do you use, because uh, if we have to look at the term for balanced scorecard and where it fits, it involves financial uh, uh customer perspective and then business processes, which can either, which can either be internal or external, and also learning and growth. Mhhh, okay. So you, do you apply, within your line of business you apply that through uh PLUSS principles, so to say.

INTERVIEWEE: Ja. That's correct, yes. Yes. You see, that balanced scorecard, that PLUSS is actually the balanced scorecard.

INTERVIEWER: Okay.

INTERVIEWEE: It's subjective; it's subjective, because whatever you're talking about, in terms of service levels. You know what I'm saying?

INTERVIEWER: Yes, yes.

INTERVIEWEE: The second [Inaudible 0:07:19], the second [Inaudible 0:07:21] PLUSS.

INTERVIEWER: Okay. No that, that's great. I um, I did get a lot of information regarding that. Okay, and then, in general ne, the, the information that you either get, or on your side it will be benchmarking, balanced score card ne?

INTERVIEWEE: Hang on, can I, can I assist you there?

INTERVIEWER: Okay.

INTERVIEWEE: At the beginning of the year, right?

INTERVIEWER: Yes.

INTERVIEWEE: You set benchmark.

INTERVIEWER: Yes.

INTERVIEWEE: Right? You set the benchmark, alright this is our target. Right?

INTERVIEWER: Yes.

INTERVIEWEE: You say, you say alright, if you reach the target, then you get the point.

INTERVIEWER: Great, okay.

INTERVIEWEE: If, if, if you don't, if you don't, you may be between a certain threshold point and that target, then you might get a variance of sort of the, the difference.

INTERVIEWER: Yes, yes.

INTERVIEWEE: You know? You may not make a target that the full scope.

INTERVIEWER: That's true, okay. No it does, it does make sense now. Um, what, what I want to know is uh, like um, most of the time you find that um, people use benchmarking maybe after two months or after three months, and then balanced scorecard depending on the timeline of the organisation. So in your line of business, how often do you use this um, principle of Management Accounting? Is it monthly basis or does it happen yearly, half yearly or, okay…

INTERVIEWEE: Okay. Like here's, let's say so we want to increase productivity. Let's say, you produce let's say 100 [objects? 0:09:06] this year.

INTERVIEWER: Okay.

INTERVIEWEE: Now we say we want to produce 105 next year.

INTERVIEWER: Yes.

INTERVIEWEE: You report let's say 100 of last year as let's say as a threshold point.

INTERVIEWER: Okay.

INTERVIEWEE: You attain this 100, you get zero.

INTERVIEWER: Okay.

INTERVIEWEE: Right?

INTERVIEWER: Great.

INTERVIEWEE: Now it will attain to 105, and later you get the full score.

INTERVIEWER: Okay.

INTERVIEWEE: That's how you calculate, right?

INTERVIEWER: Ja.

INTERVIEWEE: But, because that's your production for the year, that 100.

INTERVIEWER: Yes.

INTERVIEWEE: You have to, let's say first the month you have to divide that by 12 to get the expected productivity for the first month.

INTERVIEWER: Okay.

INTERVIEWEE: So in other words, we are using this reporting on a monthly basis, right?

INTERVIEWER: Yes, yes.

INTERVIEWEE: Going towards, ja.

INTERVIEWER: Okay.

INTERVIEWEE: When you do a report on a monthly basis, you make, target is set, and then after the target is set, then you say, alright, these are the key things you want to perform better on.

INTERVIEWER: Okay, great. So do you find this information that you generate is, is it useful, is it useful, is it creating shareholder value indirectly or directly, uh customers, your customers are satisfied, are they satisfied? They could be internal customers or external customers?

INTERVIEWEE: Now this question of yours kicks back to your first question of what the balanced scorecard is.

INTERVIEWER: Yes.

INTERVIEWEE: And that is exactly, to actually contain.

INTERVIEWER: Okay.

INTERVIEWEE: And you spoke at the financial issues are around that in the balance scorecard.

INTERVIEWER: Yes.

INTERVIEWEE: Those things come in uh, terms of our, shall we call it, application in saying what we want to make um, we want to … let's say because we have a, a cash flow management issue, right?

INTERVIEWER: Yes, yes.

INTERVIEWEE: So we say, alright, we want to uh, sort of save you know, complete the expected cash flow for the, for the upcoming year…

INTERVIEWER: Yes.

INTERVIEWEE: Follow those steps, so the financial side is done. Right?

INTERVIEWER: Yes.

INTERVIEWEE: Then the service level agreement, we take ourselves how we're performing to those service levels.

INTERVIEWER: Yes, I'm…

INTERVIEWEE: We refer to, we refer to our, our first target at the beginning of the year. Right?

INTERVIEWER: Okay.

INTERVIEWEE: And then we give ourselves a score on that. And then we look at our safety results, so it's more like collating all that information together.

INTERVIEWER: Mmmm.

INTERVIEWEE: To give us a score.

INTERVIEWER: Ja, because that uh, it answers most of the questions, because if I look at the way uh PLUSS operates ne, I, I will be able to generate lots of information there. So, what I can ask now, is there strategies within the organisation that you have to ensure that um, your tools for management accounting are working for you? How often do you do it, and what kind of uh, strategies do you apply?

INTERVIEWEE: You know, you say, okay look, when you're saying management accounts I, I look at it this way.

INTERVIEWER: Yes, yes, can your problem…

INTERVIEWEE: I, I cannot answer a question on management accounts or just, I'd rather answer just on our balanced scorecard.

INTERVIEWER: Oh, okay. Mmmm.

INTERVIEWEE: Right?

INTERVIEWER: Ja, that, okay.

INTERVIEWEE: Because management accounts is a separate issue. Again you're going to draw me back to that, whether we use a scorecard or …

INTERVIEWER: Ja.

INTERVIEWEE: Or did we assess our allocation basis. But that is now [Inaudible 0:13:14] speaking on finance.

INTERVIEWER: Oh, okay. So your, your role is a senior manager for, is it performance?

INTERVIEWEE: Well, I'm a senior [Inaudible 0:13:25].

INTERVIEWER: Oh, senior.

INTERVIEWEE: Right? On performance management. Yes, on performance management.

INTERVIEWER: Um, okay, before we conclude uh, can you elaborate on what more do you do on that role? Is it a business performance, financial performance, something like that?

INTERVIEWEE: Ja, it's business performance.

INTERVIEWER: Okay.

INTERVIEWEE: Right? Now, you, you, business performance, as you yourself said, it, in regards to that balanced scorecard we come back to.

INTERVIEWER: Yes.

INTERVIEWEE: Which includes customer, customer focus.

INTERVIEWER: Yes.

INTERVIEWEE: It includes financial, it includes safety, it includes, you know, customer focus, it includes you know, cost management.

INTERVIEWER: Yes, yes, okay.

INTERVIEWEE: But in fact [Inaudible 0:14:11]. Does that help you?

INTERVIEWER: That is great! Okay. Now, ja um, I was able to get more of information that I will combine with the other stuff. And then um, hopefully I will also let you know around uh, regarding the outcome of research.

INTERVIEWEE: So now [Inaudible 0:14:33].

INTERVIEWER: It's, okay.

INTERVIEWEE: I will send you an example. An example of our [Inaudible 0:14:42] scorecard, for one with the month. Okay?

INTERVIEWER: Uh, ja, you can send it to me as it will give me more information.

INTERVIEWEE: Ja, let me rather give you this one.

INTERVIEWER: Oh, okay.

INTERVIEWEE: Then you can help, you can see in that way. If you have any further questions, you can still ask. But I will send it to you.

INTERVIEWER: No, but this one will really help because, ja, most of the questions are covered…

INTERVIEWEE: That is…

INTERVIEWER: Any information.

INTERVIEWEE: Business.

INTERVIEWER: Ja. Mmmm, okay.

INTERVIEWEE: Sharp man.

INTERVIEWER: No thanks so much for your time.

INTERVIEWEE: Yes.

INTERVIEWER: Okay. Great!

INTERVIEWEE: Okay, okay, sharp man.

INTERVIEWER: Okay, thank you.

INTERVIEWEE: Mamela ne?

INTERVIEWER: Okay.

INTERVIEWEE: Do you want to speak to a guy who is in the mine, in the finance, in management accounts right? To answer that costing question?

INTERVIEWER: Oh, okay [Inaudible 0:15:40]?

INTERVIEWEE: No, no, no. It's the [Inaudible 0:15:44] service.

INTERVIEWER: Oh, okay. No, if, if, you get him [Inaudible 0:15:49], you can refer that person to me then. It will be great.

INTERVIEWEE: Okay, can, can you give me two seconds. I'm gonna call the guy [Inaudible 0:15:57]?

INTERVIEWER: Okay, great.

INTERVIEWEE: Uh, [Inaudible 0:16:23].

INTERVIEWER: Ja?

INTERVIEWEE: Sorry. Ja, you're not lucky today, because the guys have gone for a meeting.

INTERVIEWER: Okay. No, it's fine. [Inaudible 0:16:31]. It's great that I spoke to you, but if you get him and then he can just uh, give me a call.

INTERVIEWEE: Oh no, that other guy can call you and talk to you [Inaudible 0:16:42].

INTERVIEWER: Okay, great.

INTERVIEWEE: Sharp sharp.

INTERVIEWER: Thanks so much.

INTERVIEWEE: Okay.

INTERVIEWER: Okay.

INTERVIEWEE: Bye-bye.

Participant [5]

INTERVIEWER: I'm busy with my thesis and would like to interview you for 20 to 30 minutes as per request form...and discussions we had.

INTERVIEWEE: Okay. I can assist with some of questions but most of them we do not really use in our line of business.

INTERVIEWER: Thank you…you are a very busy person.. ne?

INTERVIEWEE: Yes, yes. I'm always in the plant these days; the line managers are keeping us busy requesting information.

INTERVIEWER: Thank so much for your time… . How is Management Accounting treating you?

INTERVIEWEE: Yes, as management accountant you need to know what is happening in the business, the beginning and the end of the process, the impact to the next business unit, if any and to the whole company. The risks and benefits involved. This is an important aspect that management accountant must have before getting involved in the financial running of the business (but now it is done the other way round, an accountant is thrown into the business and gathers the knowledge by himself as he goes along and learns by mistakes).

INTERVIEWER: Okay, great…which Management Accounting tools do you use.

INTERVIEWEE: SAP System (PS1, PS2 and PS3) BW System, Microsoft system (Excel, Word and PowerPoint).

INTERVIEWER: Okay..um... do you use ABC, benchmarking and balanced scorecard?

INTERVIEWEE: Benchmarking – this is a point of excellence, best of the best, top class, world record holder. It is a mark that everyone wants to achieve because it has been proven by "someone" that it can be reached. We benchmark when billing the services provider and to insource or outsource the services.

INTERVIEWER: Okay. How often do you use Management Accounting tools?

INTERVIEWEE: We use daily, weekly and monthly.

INTERVIEWER: Okay.. great, is that the only tools you work with?

INTERVIEWEE: Regarding ABC the closest will be that the convention starts with the input from a particular source, e.g. natural sources like coal or air from the atmosphere or products from other plants. It also indicates the transformation and conversion of that input, the cost involved and the allocation of costs from other areas like Financial, Info Management, Stores etcetera. These are called Leverage operations cost; the process material involved and finally shows the output, the end result of the conversion which may be the end product out for sale or the raw input to the next plant and starts the convention of that particular plant. When all these conventions are combined they form the process flow of the organisation and the production cycle is complete. In simple terms, it is the cost of producing one unit and item per production cycle; in our organisation the unit of production is 1 ton of pure gas produced. In the calculation the numerator is the net cash cost cash cost less cash income and the denominator is the tons of pure gas produced for that calculation period being a month, a series of months or a year. The calculated result will be an X-rand/ton.

INTERVIEWER: Okay, that's very great. So what about balanced scorecard?

INTERVEWEE: Regarding the other questions I see them but I will prepare and tell you how we work around them, but most of stuff I do not do but some of my colleagues might have information and will send you all the details and reports that I use...

INTERVIEWER: thank you so much … I will use the information I got now but will also wait for the other details…do not forget to sign the form.

Participant [6]

INTERVIEWER: Thank you so much for your time…
INTERVIEWEE: Pleasure to help you where I can...

INTERVIEWER: I have sent you the questions to go through. Did you get them?

INTERVIEWEE: Most of these questions are closed and need more clarity in terms of what they require exactly. If you could ask more probing questions I can give you more.

INTERVIEWER: Okay, thanks…do you use management accounting tools like activity based costing, benchmarking and balanced scorecard?

INTERVIEWEE: Yes… Activity based costing on our side varies from cluster to cluster and benchmarking is in form of policy guidelines: however outcomes differ from client to client based of their risk profiling.

INTERVIEWER: Thank you. So I can see you do apply Management Accounting tools within your organisation.

INTERVIEWEE: Yes we do, we have lots of management accountants within our business.

INTERVIEWER: Okay great, this shows that Management Accounting is relevant today.

INTERVIEWEE: Very true.

INTERVIEWER: Does your organisation use the Balanced Scorecard?

INTERVIEWEE: Yes, but I do not work with that but I know we do...

INTERVIEWER: How often do you use information generated from Management Accounting tools?

INTERVIEWEE: On the department that I am in, we use it twice in a year but monitored on a regular basis.

INTERVIEWER: Okay... does your organisation generate sustainability information from the tools mentioned above to influence decision-making on the improvement of the financial performance of the organisation?

INTERVIEWEE: Regarding financial performance, continuous feedback from staff member, shareholder, customer satisfaction and also the economic market conditions plays an important role for us to improve our financial result.

INTERVIEWER: It makes sense, information that you get from Management Accounting tools, does it add value in creating shareholder value, competitive strategy and customer satisfaction?

INTERVIEWEE: Yes, yes it does.

INTERVIEWER: Okay.

INTERVIEWEE: Feedback gained assists us to keep relevant to the current market demand and to enable us compete.

INTERVIEWER: Great.

INTERVIEWER: Balanced scorecard, does it assist your organisation in providing sustainability information for decision-making and if so how?

INTERVIEWEE: To an extent, in a way that it needs to be revised from time to time.

INTERVIEWER: Okay… does benchmarking provide sustainability information for decision-making for your organisation and if so how?

INTERVIEWEE: Yes, benchmarking in a way it sets minimum standards i.e. compliance issues; to remain on the edge these need to be exceeded.

INTERVIEWER: Okay great.

INTERVIEWEE: The Management Accounting tools are used as a measuring stick as to how far the organisation is in realising its goals.

INTERVIEWER: True... does Management Accounting tools add value or do they improve performance of the organisation?

INTERVIEWEE: Yes, certainly they do.

INTERVIEWER: Okay. Does your organisation take measures to ensure that sustainability information generated from Management Accounting tools sustain future financial performance, if so in what way?

INTERVIEWEE: Yes. Strategies are revised on a year to year basis and all the information gathered is compared on a month to month basis, any deviation addressed for improvement or for sustainability: meaning consideration is given to micro and macro factors and realignment accordingly (economic conditions, people issues and objectives of the organisation).

INTERVIEWER: Great…

Participant [7]

INTERVIEWEE: …[we? 00:00:00] just have performed, so usually in market performance in a given [inaudible 00:00:04], in a given month, as to how the trading and [multi market? 00:00:07] [panel? 00:00:07] was. We actually benchmark whether we were successful in that month or in that [process 00:00:12].

INTERVIEWER: So do you do that on monthly [basis? [Inaudible 00:00:16]?

INTERVIEWEE: Yes.

INTERVIEWER: So you track down on monthly basis or quarterly basis?

INTERVIEWEE: Yes.

INTERVIEWER: [Inaudible 00:00:19] [that's engaging? 00:00:19] from other people. Some say that they don't use that. Some of them use it once year. Some of them use that information on a quarterly basis like you said.

INTERVIEWEE: Okay.

INTERVIEWER: So, you [inaudible 00:00:31] the question from benchmarking, that they assist your organisation in terms of decision-making or does it add value on the … from the financial performance of an organisation?

INTERVIEWEE: On ours it does, particularly because of the regulations in the market and because all the banks try to align their strategy and their performance with how the market is behaving, so the benchmarking, I think it's a lot because if we are overly above or below a certain target, then we might …, then we might be able to identify that we have exposure to instruments that the banks are not supposed to be having exposure to, due to volatility and risk in the market. So, it does help us to measure against the market and to actually set goals going forward, yes.

INTERVIEWER: Okay. That's very great information. And then we have got something called [inaudible 00:01:31]. [Inaudible 00:01:33] card [inaudible 00:01:34] in terms of [anti-corruption? 00:01:36] and customers' perspective. Learning and growth? 00:01:40] and it will also have business internal process, that business process within the organisation itself. So do you have such in your organisation?

INTERVIEWEE: I'm not exposed to this too much, but we do…

INTERVIEWER: You do?

INTERVIEWEE: …Because our front office desks and our … we, as a bank now, we have … [it is not? 00:02:07] [particular information? 00:02:08] to disclose. We have a "go to" bank as the kind of model that is being used now.

INTERVIEW: [Can you? 00:02:14]…?

INTERVIEWEE: So, our front office is concentrated on building our… especially when we talk about our stakeholders, because all the banks have been making lots of money, but when the markets change and then clients lose money and everything, you want to keep those relationships intact. So there is a huge focus on customer satisfaction beyond just revenue lines and the outcome of the services we provide in terms of quality of service and keeping [the relationships? 00:02:45] going and adding value in terms of advising them. We have a balanced scorecard where all our big front offices are… the desks are evaluated on how they do on all those things and we're adding on top, how they make their money.

INTERVIEWER: It sounds very great. So it does mean, based on the information that you're giving… you gave already, have you seen that Management Accounting tools in general, not only referring to these three that we're specifically focusing on, would you say that they do add value within your organisations and if so, will that value be in terms of stakeholder… customer satisfaction and competitive strategy? So. Yes.

INTERVIEWEE: I'd say it adds value on all those that you mentioned, especially competitive strategy…

INTERVIEWER: Okay.

INTERVIEWEE: …because we need to remain relevant and the… including the management accounting tools that we've mentioned and others that we have across the bank …

INTERVIEWER: Yes.

INTERVIEWEE: …the level of engagement that gets undertaken every quarter by senior management and executives on just the outputs of all the systems that we have, it's very detailed and it's basically for that purpose, to actually see the direction of the bank, where we are going, and all these tools make huge contributions in terms of that analysis by senior management, especially given the fact that our operations are in different countries and in different regions around the world. So we need all these accounting management tools to consolidate and be able to analyse the business as a whole and how we are doing as a bank.

INTERVIEWER: Yes. Okay. That's great. So, would you say that your organisation's goals in strategy … do they support management accounting tools or management accounting departments in general?

INTERVIEWEE: I would say yes, very much so, because … but most of our decision-makers are not really hands on as to … on the activities of the bank, so they rely solely on information that gets produced by the management accounting technicians and they resource them to make sure that they have all the tools necessary for them to get the right, relevant information every time, for those decisions to be made on relevant data.

INTERVIEWER: Okay. That's very vital information because what I've been finding out from other organisations is that they do have lots of Management Accounting departments within their factories across South Africa, but at the end of the day, the reports that they generate, their top management, it would depend on whether the top management or the executive do make use of it, for them to actually get the benefit. So they can do the work, but the… bottom… the main… how do I say this? The decision lies with the executive, whether to utilise it to the best of the organisation or what?. So in general, based on the Management Accounting tools, would you say they … do they improve financial performance of an organisation?

INTERVIEWEE: They may improve it, especially ours because some of the other tools that we have are so comprehensive and they help the organisation stay in line in terms of the information because we have, especially because of the banking association we have limitations in terms of how [those? 00:06:19] [inaudible 00:06:20] and how much leverage we can have and how much risk exposure we can have. So all these Accounting Management [inaudible 00:06:29] and exposure, how our balance sheet is and whether it has been substantiated properly because, as much as they help with decision-making, they also help with regulation compliance, so they add a lot of value and they pay serious attention to the reports that they produce.

INTERVIEWER: That's very great to find out. So, within other organisations or within departments, in your organisation, do you have people that specifically focus on research and development of their organisation in terms of ensuring that they are sustainable over the future?

INTERVIEWEE: We do. Most of our research is based on … I know we have quite good teams, resourced teams, that do research based on how we are perceived in the market, especially given the recent credit crunch and crisis where our entities have actually … the name of the entity has been tarnished out there, so they produce a lot of information where it will be more relevant to that balanced scorecard, but even within the organisation itself, in terms of technology, Management Accounting, how it can be improved, how it can be made more efficient, we have research teams that are constantly looking into that to say: "How can we most get the right management information in the quickest time, using the latest technology?" so there's a lot of focus on that.

INTERVIEWER: Okay. No, I think I've covered everything that I needed to know. I'll consolidate your information with the other ones and then at the end of…, once everything is approved, then you will get feedback as to how our presentation went And we will be able to get more information on [00:08:28] [inaudible 00:08:29] and then I'd like to thank you so much for your time, to assist me with [inaudible 00:08:37].

INTERVIEWEE: Thank you.

INTERVIEWER: Okay.

INTERVIEWEE: [I wouldn't like to? 00:08:44] [inaudible 00:08:45]…