THE EXTENT TO WHICH SELECTED MANAGEMENT ACCOUNTING TECHNIQUES ARE PRACTISED BY SMEs IN NELSON MANDELA BAY

By

Waven Merchan Korkie

Submitted in fulfilment of the requirements for the degree Magister Technologiae Management Accounting in the Faculty of Business and Economic Sciences at the Nelson Mandela Metropolitan University

December 2014

Supervisor: Mr G.K Hustler

DECLARATION

I, *Waven Merchan Korkie s20239524,* hereby declare that this *treatise* is my own work. All sources that I have used or listed have been acknowledged by means of references. This treatise has not been previously submitted for assessment to another University or for another qualification.

Waven Merchan Korkie

ACKNOWLEDGEMENTS

I would like to express my appreciation to the following individuals for their support during the research study:

- Mr G.K Hustler, who guided me in the right direction, assisted me with his knowledge and provided constructive criticism.
- Dr J. Pietersen, who assisted me with the statistical analysis.
- The small-medium enterprises (SMEs) that participated in the survey.
- My mother, June and family, for always being supportive and encouraging me from the start of my career.
- My wife, Andrea and family, for their endless support, patience and understanding.
- My Heavenly Father for giving me the ability to succeed in this journey and providing me with sufficient mercy and grace.

ABSTRACT

The aim of this study is to investigate the extent to which selected management accounting techniques are practised by small-medium enterprises (SMEs) in Nelson Mandela Bay. Management accounting techniques can be described as the information and methods management use for decision-making in order to operate the business more effectively. Management accounting research has focused on large companies over the years. Limited research exists with regards to the practises of management accounting techniques within SMEs and the extent to which it is used. It is widely accepted that SMEs are an important part of most economies and contribute significantly in economic terms. This study outlines the selected management accounting techniques, and highlights the importance of management accounting within SMEs.

This study appropriately considered a quantitative method, by using a self-administered questionnaire for the primary objective of the study. The designated population, who was surveyed, included the financial manager, management accountant or skilled accounting staff members within SMEs. Purposive sampling was considered, which consisted of the database of Nelson Mandela Bay Chamber of Commerce, Business Partners and Transnet, all of which work closely with SMEs in Nelson Mandela Bay. The study obtained 53 responses from 126 SMEs targeted. However, only 50 responses were usable. The main findings of the study reveal that SMEs are neutral with regards to the usage of the selected management accounting techniques, which means that to some extent the selected management accounting techniques are used, and to another extent it is not used. Conclusions with regard to the extent to which SMEs use the selected management accounting techniques, cannot be generalised, and further research is recommended. However, this research can be used as a basis for future research.

Key words: management accounting, techniques, extent, selected, practised, small-medium enterprises (SMEs), Nelson Mandela Bay.

CONTENTS

TABLE OF CONTENTS

CHAPTER FIVE: EMPIRICAL STUDY AND PRESENTATION OF RESULTS

CHAPTER SIX: SUMMARY AND CONCLUSIONS

LIST OF FIGURES

LIST OF TABLES

LIST OF ANNEXURES

CHAPTER ONE: INTRODUCTION AND BACKGROUND OF STUDY

1.1 INTRODUCTION

During the past few decades, small-medium enterprises (SMEs) in both the manufacturing and service sectors of the economy have faced dramatic changes in their business environment. SMEs in these business sectors are currently going through major economic challenges and are considering ways to better manage their financial resources. The focus of SMEs proportionally shifts to the management accounting aspects of their business. Management accounting is playing a vital role in the internal processes of business organisations. Stefan (2012:161) points out that many businesses recognise the need for effective management accounting techniques to provide management with relevant, timely and accurate information for improving enterprise performance. Management accounting techniques are important methods to control costs, finding ways to increase profits and maximising the wealth of the stakeholders.

Management accounting techniques, which are related to financial and non-financial information, are information and methods management use for decision-making in allocating scares resources. Management accounting techniques are most commonly practised in large manufacturing companies and often practised by the management accountants. It can further be said that the scope of management accounting is wide ranging and makes a very important contribution to the success of any organisation regardless of size and economical sector.

SMEs are an important part of the economy. The South African government acknowledges that one of the ways to reduce the social challenges the country faces can be addressed through progressive partnerships in society and business, especially SMEs (Mungadze, 2013:13). The role being played by small businesses is becoming increasingly recognised all over the world and is an important part of most economies.

According to Neag, Masca and Pascan (2010:308*)* SMEs are often subject to the same rules as larger entities, but their specific accounting needs have rarely been assessed. In addition, insufficient research exists with regards to the extent to which management accounting techniques are practised by SMEs. Nandan (2010:65) confirms that management accounting research in SMEs still remains a neglected area, even though

SMEs are important in the economy. According to Yaghubi, Moradi and Mehrdad (2011:76) accurate and precise financial information are of the basic needs in small businesses and managing the information is very important. Furthermore, management accounting brings a wide range of techniques that can be implemented and contribute positively not only in large businesses, but in SMEs as well. Nandan (2010:65) asserts that, as in large firms, SMEs also require adequate and sophisticated management accounting techniques. According to Yaghubi et al. (2011:76) insufficient accounting information is the major reason for the failure of small businesses. Accountants have been identified with the expertise and skills to provide a broad range of management accounting services to SMEs. However, Nandan (2010:66) states that accountants have not been extensively involved in the provision of such services.

Management accounting remains important within SMEs and can assist with business complexities. In recent years, the roles of management accounting and technology in organisations have become quite significant. This demands appropriate skills on the part of management accountants to provide strategic directions to smaller business. SMEs are linked to contextual complexities in terms of strategic, financial and cost management issues. Nandan (2010: 69) further indicates that SMEs face similar forms of complexities as in larger firms and are also prone to failure to a large extent. Management accounting information is therefore equally important to SMEs.

SMEs are the foundation of every economy and could offer a viable solution to unemployment in South Africa. It is further stated by May (2013:36) that small businesses are the strongest engine of job creation in South Africa and businesses that employ fewer than fifty people account for approximately 68% of South African employment. The efficiencies and effectiveness of small businesses can create substantial benefits for the South African government. The benefits can be in the form of taxation income, job creation and social cohesion. According to Figg (2006:96) SMEs are strategically important for reasons such as the following:

- SMEs contribute to employment at a higher rate than that of larger firms;
- SMEs provide economies with greater flexibility in the provision of services and the manufacture of consumer goods;
- SMEs increase the competitiveness of the market place;
- SMEs are important in developing entrepreneurial skills and innovation;

- SMEs are instrumental in the provision of services in the community.

The Eastern Cape is part of the nine (9) provinces within South Africa. The researcher identified that the biggest economic region within the Eastern Cape is Nelson Mandela Bay. The city of Port Elizabeth, situated within Nelson Mandela Bay, lags behind other cities such as Johannesburg, Cape Town and Durban in economic terms. Port Elizabeth forms the greater part of Nelson Mandela Bay and is the chosen region for this study. Many citizens within Nelson Mandela Bay relocate to other cities for better career opportunities. This means wealth and skills are taken out of Nelson Mandela Bay. Although there are many projects currently underway within this region, more economic activities need to take place to alleviate the high unemployment in this region. The increase of economic activities should benefit SMEs and society at large. Management accounting skills within SMEs remains an important aspect to grow SMEs into profitable businesses within Nelson Mandela Bay.

Management accounting techniques are primarily practised in large manufacturing companies and most research in management accounting focuses on large companies. Considering the importance of SMEs and their need for management accounting information, this study finds it appropriate to investigate the extent to which management accounting techniques are practised by SMEs within Nelson Mandela Bay. The management accounting techniques selected for the study were carefully chosen and are a good representation of management accounting techniques available. These techniques indicate revenue, cost and profit relationships. The researcher is also well-informed with regards to the selected management techniques the study intends to undertake. These techniques were covered in the researcher’s curriculum at Nelson Mandela Metropolitan University (NMMU).

1.2 DEFINITION OF KEY CONCEPTS

The following key concepts related to the research study are clarified**:**

1.2.1 Management accounting

Drury (2008:7) states that "management accounting is concerned with the provision of information to people within the organisation to help them make better decisions and improve the efficiency and effectiveness of existing operations.''

1.2.2 Techniques

A technique is a particular method of doing an activity, usually a method that involves practical skills. For the purpose of the research, the technique will be the process, calculation and method of the management accounting theory.

1.2.3 Extent

Extent in terms of this study can be described as to what range, to what magnitude and how important.

1.2.4 Selected

Selected in terms of this study can be described as a few chosen out of more that exist and or carefully chosen.

1.2.5 Practised

Practised in terms of the study can be described as functional, used, exercised and applied.

1.2.6 Small-medium enterprises (SMEs)

According to the National Small Business Amendment Act 2003, a small business is defined as a business that has less than fifty full-time employees and a medium-sized business has up to two hundred employees. The average annual income and total assets making up SMEs vary between sectors and generally forms part of the definition of SMEs.

1.2.7 Nelson Mandela Bay

Nelson Mandela Bay consists of Port Elizabeth, Uitenhage and Despatch. The term Nelson Mandela Bay is relatively new and this name started being used in recent years. Port Elizabeth forms the greater part of Nelson Mandela Bay.

1.3 PROBLEM STATEMENT AND OBJECTIVES

Management accounting research focussed on large enterprises over the years and management accounting research within SMEs has been lacking. This may have limited its usefulness within SMEs where management accounting information is essential for business and financial strategy.

1.3.1 Research problem statement

Limited research exists with regard to the practises of management accounting techniques by SMEs and the extent to which it is used. Research attention in SMEs management accounting practises has been lacking. Large firms have received greater attention in relation to specific management accounting research compared to SMEs. Many researchers indicate that management accounting techniques are not only important in large firms but in smaller firms as well. SMEs are an important business sector in most economies and the element of management accounting has been described as vital to the success and/or failure of these enterprises.

The study aims to expand on the limited information that currently exists with regards to the practises of management accounting techniques within SMEs. The study further aims to investigate the extent to which selected management accounting techniques are practised by SMEs in Nelson Mandela Bay.

1.3.2 Primary objective

The primary research objective that the study seeks to address is: The extent to which selected management accounting techniques are practised by SMEs in Nelson Mandela Bay.

1.3.3 Secondary objectives

To address the primary objective, the study has identified the following secondary research objectives:

- To give a brief overview of SMEs and a brief discussion with regards to the current economic developments taking place within Nelson Mandela Bay. The overview of SMEs will consist of SMEs' contribution to the economy, growth phases, failure rates, challenges, opportunities and management accounting needs. This information will give a background with regard to SMEs and is related to the study undertaken;
- To illustrate the selected management accounting techniques and elicit information about the extent to which SMEs agree or disagree with regards to the advantages and disadvantages of these techniques covered in the literature study;
- To elicit information with regards to the personnel that deal with the management accounting aspects within SMEs;
- To investigate the extent to which SMEs use the selected management accounting techniques, and evaluate how the size of the firm impacts on the extent it is used. The size of the firm is measured by the magnitude of turnover, assets and number of employees;
- To elicit information with regards to the extent to which SMEs agree or disagree, that the selected management accounting techniques are applicable to their organisation.

1.4 RESEARCH DESIGN AND METHODOLOGY

The following procedures will be followed in order to consider the primary and secondary objectives:

1.4.1 Research methods

To achieve the first and second objectives of the study, extensive secondary data in the form of management accounting and financial management text books, academic journals, the internet, news articles, publications and other appropriate sources were used. This serves as a theoretical framework for the study.

To achieve the third, fourth and fifth objectives of the study, an empirical survey was conducted, which consist of quantitative data. This data were useful in completing the primary objective of the study.

1.4.2 Sampling

Kumar (2011:192) explains that the purpose of sampling in quantitative research is to draw inference about the group from which the sample has been selected. Sampling, therefore, is the process of selecting a few from a bigger group to become the basis for estimating or predicting the prevalence of an unknown piece of information, situation or outcome regarding the bigger group. This research makes use of purposive sampling and more information is given in Chapter Four with regards to this sampling technique.

1.4.3 Research design

The research design is a plan, structure and strategy of the investigation to obtain answers to research questions or problems. The researcher found it appropriate to make use of a self-administered questionnaire and more information is given in Chapter Four with regards to the study design.

1.5 SIGNIFICANCE OF THE RESEARCH

Management accounting techniques are useful tools used by many large companies to save costs and increase profitability. Larger companies are not providing enough employment; SMEs are more likely to grow and increase employment over time whilst fulfilling an important role in society. The economy can benefit greatly with the success of SMEs and management accounting skills form an important part in the success of these enterprises. According to Hall and McPeak (2011:11) SMEs are under increasing pressure to remain competitive in today's global economy; however, there are techniques to achieve cost-saving, market response and efficiency. SMEs have been high on the agenda of non-profit organisations, various political affiliations and academia in recent years with the aim to stimulate the economy. Furthermore, in 2014 the South African government included an official in their cabinet to oversee and accomplish a crucial mandate with regards to SME development.

Research with regards to the practises of management accounting techniques by SMEs, has been neglected over the years. This research will provide a reasonable investigation for users of accounting information and SMEs to have a view of the selected management accounting techniques and its implications. Accountants with management accounting knowledge can assist SMEs to make use of the management accounting techniques wherever appropriate. This research will give readers an indication with regards to the extent selected management accounting techniques are practised by SMEs in Nelson Mandela Bay. The research subject can also be used as a basis for future research with regards to management accounting practises within SMEs.

1.6 DELIMITATION OF THE RESEARCH

The study will focus only on SMEs, particularly in the manufacturing and service industry. However, the study will exclude banks, agriculture, mining and governmental institutions. The study will be limited to the Port Elizabeth business environment in Nelson Mandela Bay. The research will not focus on large companies; however, large companies can benefit from the information resulting from the research.

The research investigation will be targeted to financial managers, management accountants and competent users of accounting information within SMEs. The study may be limited in terms of certain management accounting techniques available that the researcher is not exploring. The research may also be limited in terms of the depth of each management accounting technique being illustrated as a result of the number of techniques chosen and the specific objectives of the research.

1.7 STRUCTURE OF THE STUDY

Chapter One shows the introduction and outline of the study and puts the research into perspective.

Chapter Two will provide an overview of SMEs in the economy and a brief overview of Nelson Mandela Bay. The contribution, challenges and management accounting importance within SMEs will be deliberated upon.

Chapter Three will discuss the relevance of management accounting in the manufacturing and service sector. Theoretical information with regards to management accounting will be briefed upon as well. Basic illustrations and examples of the selected management accounting techniques will be shown. The selected management accounting techniques referred to will be techniques such as activity-based costing, standard costing, cost volume profit analysis, budgeting, capital budgeting, ratio analysis, linear programming, just in time inventory, economic order quantity and programming evaluation review technique.

Chapter Four will consist of the research design and methodology of the study.

Chapter Five will discuss the statistical analysis and interpretation of the survey results.

Chapter Six will discuss the findings based on the research objectives, summarise the results, and conclude the research.

CHAPTER TWO: OVERVIEW OF SMALL-MEDIUM ENTERPRISES (SMEs) AND THEIR MANAGEMENT ACCOUNTING NEEDS

2.1 INTRODUCTION

In order to investigate the extent to which SMEs use selected management accounting techniques, it is important to have an overview of SMEs. In this chapter, SMEs will be discussed in terms of their challenges and contribution to the economy. The entrepreneurial state of South Africa will be discussed. Furthermore, Nelson Mandela Bay and Port Elizabeth more specifically will be discussed, and will be the selected region of the empirical study. The significance of SMEs' management accounting needs will be reflected upon as well.

2.2 CURRENT ENTREPRENEURIAL STATE OF SOUTH AFRICA

South Africa has a long way to go in developing more sustainable SMEs and the country currently seeks ways to encourage entrepreneurship as a core importance within its economy. The importance of SMEs in developing economies cannot be underestimated. Prince (2008:7) states that SMEs are used as vehicles to achieve economic growth through competitiveness, employment generation and income redistribution. Entrepreneurs generally exist within the category of SMEs. Although many entrepreneurs operate large businesses, SMEs generally make up a great part of entrepreneurs. An entrepreneur can be described as a person who realises an opportunity and starts a business. Entrepreneurs usually start a small business and grow accordingly. Entrepreneurship is important because it creates new businesses and new business creates employment. Not enough successful small businesses are created within South Africa. In a recent online article, Jones (2013) confirms that regardless of funding, training initiatives and private sector involvement, entrepreneurship in South Africa is in a difficult state. Government encourages the need for an established SME sector, but progress has been lacking thus far.

South Africa needs more SMEs. Research suggests that the enthusiasm to open a business in South Africa is not high. According to Amorós and Bosma (2013) reporting on the Global Entrepreneurship Monitor (GEM) (2013), only 12.8% of South Africans has intent to start a business. This is well below the average of many other countries with similar levels of economic development. It is further highlighted, that South Africa does not have enough established businesses and its entrepreneurship activities have limited sustainability over time. South Africa's entrepreneurship levels are of the lowest in the world and are therefore not in a good position in comparison to many other countries. The appropriate use of management accounting is instrumental for individuals who consider entrepreneurship. While entering entrepreneurship is a risk in general, the financial risks can be mitigated by the successful practises of some management accounting techniques.

2.3 CHALLENGES ENCOUNTERED BY SMEs

SMEs encounter many challenges globally and South Africa is no different. SMEs' needs are overlooked and initiatives that work are too small to make a meaningful impact in the economy. While this trend continues, significant capital is invested into programmes that are not working. Jones (2013) indicates that entrepreneurs in South Africa, who start a business and are supported by government with resources, do not create many jobs compared to other countries with the same government support. However, job creation and economic growth solutions are not just a South African challenge, but also one faced by the United States of America, United Kingdom, Zambia, Spain and many other countries. While these challenges are common, South African SMEs need more support to remain on par with the rest of the world, where SMEs function effectively.

The government is an important administration to assist and develop SMEs. SMEs assert that government should be more involve in entrepreneurship by protecting them, and by providing SMEs a supportive environment to succeed. It is noted by media reports and SMEs that government policy should not just favour big businesses, but also develop enough SMEs. Instead of developing, the SME sector is more concerned with just trying to survive as a result of poor support. The South African government of 2014 has included a ministry for SMEs in their cabinet and the impact of this will be closely monitored. Meanwhile, there are many constraints with regards to the growth of SMEs within South Africa. Jones (2013) confirms that the constraints include, but are not limited to, the weak economy, steep administered prices, municipal accounts, electricity supply uncertainty, labour law policy uncertainty and the difficult political climate, to name a few. These are some of the major business challenges SMEs encounter. The government will have to look at these constraints and see how SMEs can be relieved of it and grow effectively.

The importance of SMEs to be educated, business compliant and demonstrate business skills is vital. The burden of compliance and regulations are frequently undermining SMEs. This puts more pressure on SMEs. Access to funding is usually a challenge. However, besides a lack of funding, a lack of skill and proper education is a major challenge as well. It is suggested that the more highly educated the entrepreneur, the more likely they are to create jobs as well. It is also highlighted that many SMEs start a business out of necessity instead of their high skill level and opportunities in the economy. However, Jones (2013) indicates that South Africa's education system is making slow progress with regards to developing people with the right skills and confidence needed to be successful entrepreneurs.

There are various other problems and concerns facing SMEs. Megginson, Byrd and Megginson (2006:12) highlight that just as small companies make unique contributions; there are special problems that affect them more so than larger businesses. These problems can result in limited profitability and growth, the decision to voluntarily close the business or financial failure. Some of the big concerns referred to are:

- Current economic issues;
- Capital/financing issues;
- Unexpected growth ;
- Inadequate financing;
- Retirement;
- Burdensome government regulations and paperwork;
- Inadequate management.

In a recent online article, Anderson (2013) highlights cash flow, budget constraints, changes in the economy and rising costs as SMEs' main challenges to expand their business in South Africa. These challenges are not unique in the rest of Africa. Olusola (2011:373) asserts that SMEs' challenges in most African countries are significantly different from those in developed countries. Some of the obstacles identified are performance, growth, a lack of financial resources, lack of management experience, poor location, laws and regulations, general economic conditions, as well as critical factors such as infrastructure, low demand for products and services, corruption and poverty. Management accounting remains a crucial function within the internal processes of organisations and SMEs will have to look at how some of these challenges can be alleviated.

2.4 SMEs' RISK OF FAILURE

Many South Africans are risk averse and therefore do not start a business. The reason for this could be attributed to the high failure rate when starting a business. In two recent online articles, the South African Press Association (SAPA) (2013) and Kgosana (2013) indicate that for every seven small businesses operating in a particular year, only two will still be operating a year later. Furthermore, the online articles indicate that five out of seven South African small businesses fail in their first year, against a global average of one out of two. Whichever way individuals look at the above statistics, it is not great for encouraging entrepreneurship. Management accounting knowledge or the lack thereof seems to have a profound impact on SMEs. Yaghubi et al. (2011:78) explain that one of the reasons for failure in small companies is ineffective and inefficient managing as follows:

- Unclear understanding of the financial effects of the business operations, and inability in using operative information in the financial decision-making process;
- Lack of knowledge in accounting and financial subjects by the owners;
- Lack of proper financial management.

In addition to the above, Olusola (2011:374) advises that poor record keeping and lack of basic business management experience skills are major contributors to failure within small businesses. It is very important for SMEs to have a look at these inefficiencies. SMEs can therefore assess the impact of any inefficiency and envisage how they can reduce their chances of failure.

2.5 SMEs' CONTRIBUTION TO GROSS DOMESTIC PRODUCT (GDP), EMPLOYMENT AND SOCIETY

A large number of SMEs continue to be a vital and an extremely important part of the South African business environment. SMEs within South Africa contribute more or less 52%-57% to the GDP and provide about 60% of jobs. It is also estimated that about 70% of all workers in South Africa are employed by companies with fewer than fifty workers.

Whichever way these statistics are viewed, this is a high percentage and job creation is not a task that South Africa can afford to fail in. Employment creation is a vital goal that can be achieved if genuine growth in SMEs is created.

There are various types of impact SMEs make when it comes to employment. According to Eybers (2010:18) SMEs create job opportunities for unskilled and untrained workers. SMEs also create employment in remote and rural areas, compared to larger enterprises that often do not establish themselves in these areas. Furthermore, SMEs are an important socio-economic function by means of contributing to the development of communities. Prince (2008:24) states that SMEs contribute to income distribution, fulfilling the role in terms of demand for goods and stimulates development of additional SMEs.

Megginson et al. (2006:9) state that SMEs have a tendency to:

- Encourage innovation and flexibility;
- Maintaining good relations with customers and the community;
- Keep larger firms competitive;
- Provide employees with a comprehensive learning experience;
- Develop risk takers;
- Generate new employment;
- Provide greater employee job satisfaction.

Olusola (2011:376) further asserts that small businesses are seen to be imperative in stimulating entrepreneurial development, contributing to the transformation of the traditional sector in a modern one, creation of employment, reducing rural and urban migration and serving as a training ground for managerial skill acquisition. Yaghubi et al. (2011:78) confirm that small business is at the centre of the world’s economy today and because of their unique characteristics, have special functions such as:

- Originating jobs;
- Distributing wealth in the society;
- Developing the marginal areas;
- Providing the needed productions for countries;
- Training the workforce needed by institutions and big industries.

Small businesses are active and dominant in the economies of many developing countries and have been high on the agenda of many other African countries as well. Sunter (2013) in a speech presented at a conference, suggests that larger companies should contribute a portion of their funding to SME development and this will go a long way in sustaining SMEs to continue in their pursuit to make a difference.

2.6 SMEs' PATH TO GROWTH

It is important for SMEs to grow from a small business to a medium-size business and eventually to a large business. This will have a positive impact in the economy. However, these growth stages should be closely monitored. Strauss (2012:192) asserts that more markets are available to small businesses today than at any time in recorded history. This is largely because of globalisation. Small businesses with good ideas can become global businesses. This is an encouragement for SMEs to grow. According to Moore, Petty, Palich and Longnecker (2006:480) as a newly formed business grows, its organisational structure changes as well. SMEs have to adapt to growth and changes as a result.

In terms of SME development and growth stages, sound financial management is considered crucial. Management accounting information, therefore, becomes an important component in these growth stages, as it will often give direction to SMEs, as a result of the nature of information that becomes available.

2.7 CLASSIFYING SMEs

There are many challenges around the definition of what size organisation constitutes an SME in an economy. This usually differs from country to country. SMEs can be classified in terms of employees, annual income and fixed assets. As a guideline, the following table is an illustration of how an SME can be classified.

Table: 2.1 Definition of small-medium enterprises

Enterprise size	**Total full-time employees**	**Annual turnover**	**Total gross asset value, excluding fixed property**
Small	Less than fifty full-time employees	Between R3 million and R32 million depending upon industry	Between R1 million and R6 million depending upon industry
Medium	More than fifty full-time employees ,but less than two hundred employees	Between R5 million and R64 million depending upon industry	Between R3 million and R23 million depending upon industry

Source: National Small Business Amendment Act 26 November 2003, Government Gazette

The table above will be used as a guideline. However, in this study, the employee numbers will carry a greater weight in the definition of SMEs. The South African Revenue Service (SARS) (2013) indicates that for tax purposes, an organisation that does not exceed R1 million in gross turnover annually, would constitute a micro business. Furthermore, an organisation that has between R1 million and R20 million in gross turnover annually, would constitute a small business corporation. SARS does not give an indication with regards to a medium-sized business. However, a medium-sized business can be classified as a business that has more than fifty employees and less than two hundred employees. For the purpose of this research, SMEs will be defined by the total employees and other relevant qualitative data of the organisation; the extent of annual income and fixed assets will be closely monitored as well.

2.8 ECONOMIC DEVELOPMENT WITHIN NELSON MANDELA BAY METROPOLE

The researcher identified that Nelson Mandela Bay consists of Port Elizabeth, Uitenhage and Despatch. The population is estimated at around 1.1 million people. Port Elizabeth, which is the biggest region within the Nelson Mandela Bay area, will be the target area of the empirical study. The Nelson Mandela Bay area is also the biggest region within the Eastern Cape. Nelson Mandela Bay has one of the highest unemployment rates in the country. The high unemployment has not changed much over the years. Despite high rates of unemployment, Nelson Mandela Bay has significant manufacturing capacity. It is further highlighted that in addition to the successful automotive industry, sectors such as pharmaceuticals, food and beverages, textiles and leather are leaders in their respective industries.

In addition to the above, a leading university such as the Nelson Mandela Metropolitan University (NMMU) offers a wide range of academic courses in and around Port Elizabeth. Furthermore, academics at NMMU conduct research in areas relevant to the Nelson Mandela Bay economic sector. There are a number of major projects taking place in and around the Nelson Mandela Bay area such as:

- Continuous expansion of the Industrial Development Zone (IDZ) at Coega;
- Continuous expansion of Transnet's harbours;
- Proposed plans for Petrol South Africa oil refinery at Coega;
- Several renewable energy projects are underway;
- The Baywest mall, which will become the biggest shopping mall in the Nelson Mandela Bay area and create many employment opportunities.

The private sector continues to actively invest in other parts of Nelson Mandela Bay as well. SMEs with the right skills can significantly benefit from these developments taking place within Nelson Mandela Bay. The sustainability of these projects will also reduce unemployment in Nelson Mandela Bay by creating direct and indirect employment opportunities.

2.9 BUSINESS SECTORS WITHIN NELSON MANDELA BAY

There are a number of different business sectors within Nelson Mandela Bay.

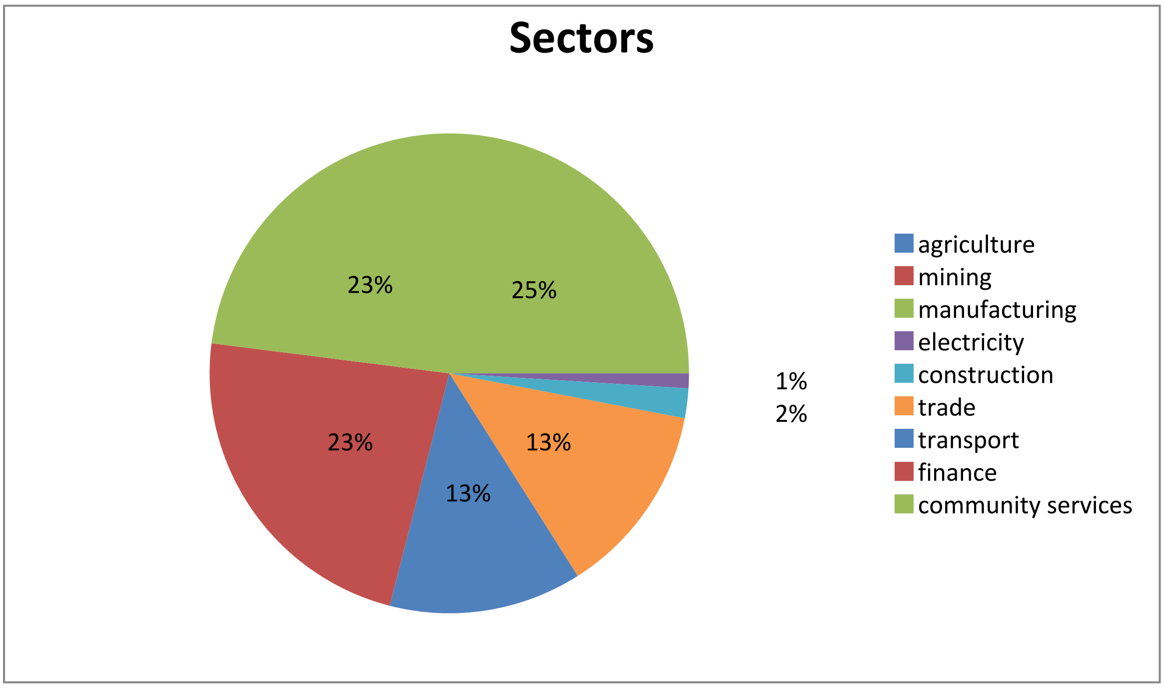

Figure 2.1: Nelson Mandela Bay's economic contributions by sector (Eastern Cape Business, 2013)

Figure 2.1 above indicates that the manufacturing sector is the largest economic contributor by sector in the Nelson Mandela Bay region as at year 2010, followed by the finance sector, community services, trade and the construction sector.

2.10 CHALLENGES FACING SMEs WITHIN NELSON MANDELA BAY

The position of SMEs within the Nelson Mandela Bay area will more or less be a reflection with regards to the position of the South African SME environment. However, to some extent, the Nelson Mandela Bay region has a unique business environment compared to other regions in South Africa. According to Glenton de Kock (personal communication, September 03, 2013) who is working closely with the Chief Executive Officer of the Nelson

Mandela Bay Business Chamber, which is the largest business association in the Eastern Cape, the contribution of SMEs to the economy is often understated and the following major challenges exist within SMEs in the Port Elizabeth area of Nelson Mandela Bay:

- Not financially sustainable;
- Financial management skills are lacking;
- Not enough business support to grow SMEs;
- Access to markets is limited;
- Lack of holistic business skills on the part of the SMEs;
- SMEs are not innovative enough;
- Growing the business is a challenge for SMEs;
- Not aggressive enough to expand;
- Not taking risks;
- SMEs often do not understand the market in which they operate;
- A lack of clarity in their field of specialisation;
- Finding suitable premises;
- Municipal tariff increases influence business negatively.

2.11 OPPORTUNITIES FOR SMEs WITHIN NELSON MANDELA BAY

Glenton de Kock (personal communication, September 03, 2013) identified the following opportunities for SMEs in the Port Elizabeth area of Nelson Mandela Bay:

- Good financial management will assist with the financial sustainability of the business;
- Limited competition;
- Specialising in respective trade will be advantageous;
- Good base to grow a business in the Nelson Mandela Bay area;
- Understanding the market may give business a competitive advantage;
- Quality of life is good and there is a lower cost of living in comparison to other cities around South Africa;
- Taking calculated risks will help in the decision-making process of the business.

Sunter (2013) further suggests that a local environment in Nelson Mandela Bay should be created for SMEs to thrive. This can be achieved by identifying the top small businesses within the area and assisting the businesses to grow from a small business to a larger business. It is also noted above, that good financial management is important for SMEs. This will allow SMEs to remain financially sustainable and grow accordingly.

2.12 SMEs' MANAGEMENT ACCOUNTING NEEDS

Management accounting techniques are considered very useful within SMEs. Olusola (2011:374) advises that accounting calculations are important for small business survival and SMEs have failed in the past for ignoring these measurements. Nandan (2010:66) suggests that apart from usual accounting compliance services, SMEs seek management accounting advice as well. Management accounting is not just important for reducing cost; the focus of SMEs proportionally shifts to increasing business profitability by identifying their most important customers, products and the rand value per transaction as well. As confirmed in Chapter One by Nandan (2010: 65), SMEs also need adequate and sophisticated management accounting techniques as in larger companies.

According to Lionel Billings (personal conversation, 03 November 2014) who is a Chartered Accountant by profession and is the National Head: Consulting Services at Business Partners Ltd, a specialist risk financing company for SMEs; smaller firms tend to:

- Perform basic accounting and management accounting techniques;
- Management accounting is deemed extraneous to many small enterprises and they are usually reactive to management accounting;
- Small enterprises do not always have the luxury to focus on the management accounting aspects of their business;
- Affording skilled management accounting staff is usually a challenge for the majority of small enterprises.

Nandan (2010:69) further states that it is generally assumed that the larger the organisation, the greater the need for management accounting information. Furthermore, this may imply that SMEs do not need management accounting procedures. However, it is noted, that SMEs have similar challenges and are more prone to fail compared to large businesses. Management accounting is therefore very important.

Accountants have come under scrutiny to take a wider view when compiling accounting reports to SMEs, and that means they need to appropriately change the way they produce information. Olusola (2011:374) indicates that financial management and reporting skills promotes effective decision-making within SMEs. Valuable information reporting by accountants will go a long way to help grow the SMEs. Smaller enterprises generally make use of external accountants and these accountants have been identified to assist SMEs with regards to management accounting information. However, Nandan (2010:70) states that there is a lack of knowledge and expertise with regards to SMEs' business operations by most external accountants. Management accounting skills are one of the major strengths in a successful business and produce compelling information for business decisions. Success in the practises of management accounting, positively influences the growth of an organisation and the economy in general. Ndwiga (2010:8) confirms that management accounting information provides solutions for business survival in a competitive business environment where business profitability is undermined.

2.13 CONCLUSION

This chapter pointed out the importance of SMEs. The current economic development in Nelson Mandela Bay was deliberated upon as well. It was indicated that a significant effort is still required if South Africa desires to have a thriving SME environment and that the government have a major role to play. It was also highlighted that the need for management accounting information should not be limited to large organisations, as SMEs also require management accounting services and should practise it accordingly. In addition, it was pointed out, that the appropriate use of management accounting techniques is essential for success within SMEs. The following chapter will discuss management accounting and introduce the selected management accounting techniques.

CHAPTER THREE: MANAGEMENT ACCOUNTING THEORY AND SELECTED MANAGEMENT ACCOUNTING TECHNIQUES

3.1 INTRODUCTION

This chapter will discuss the relevance of management accounting in the manufacturing and service sectors of the economy. This will be followed up by discussing management accounting and the selected management accounting techniques. The selected management accounting techniques will be illustrated and the implications in practising these techniques will also be outlined. The objective of each technique will be explained as well. It is important to note that these are the selected management accounting techniques. There are additional management accounting techniques that exist, but will not be covered in this study. However, these management accounting techniques were carefully chosen and are a great representation of the techniques available. The selected management accounting techniques will form the basis of the research investigation within SMEs.

3.2 MANAGEMENT ACCOUNTING RELEVANCE WITHIN THE MANUFACTURING AND SERVICE SECTORS OF THE ECONOMY

Management accounting affects every organisation. According to Blocher, Stout, Cokins and Chen (2008:6) management accounting information is useful in all organisations. Management accounting is relevant in business firms, governmental units and not-for-profit organisations. Manufacturing firms use raw material, labour, manufacturing facilities and equipment to produce products. They sell these products to merchandising firms or to other manufacturers as raw materials to make other products. Firms in the service sector, provide a service to customers. Common services include transportation, health care, financial services, personal services and legal services.

The key difference between the service and manufacturing firms is that most services are consumed as they are produced. Service organisations also tend to be more labour intensive than manufacturing firms. Many of the techniques developed for measuring cost and performance in manufacturing companies, have been reformed successfully to the service industry.

Management accounting is widely used in the service sector of the economy. Seal (2011:7) and Ndwiga (2010:2) confirm that management accounting has expanded its influence from its traditional base in manufacturing to service sectors in many economies. Furthermore, service industries provide new challenges and opportunities for management accounting information. One of the reasons is because competitive success is dependent on intangible assets such as employee expertise and relations. The service sector is also becoming more important relative to manufacturing.

3.3 MANAGEMENT ACCOUNTING TECHNIQUES

Management accounting techniques can be described as the information and methods management use for decision-making. It is the main source of information for decisions to allocate resources within a company to achieve a firm's goal. The management accountant is an integral function to oversee the achievement of the firm's goal.

3.3.1 An overview of management accounting techniques

Management accounting provides information that helps managers control activities within the firm. The plans of management are often expressed formally in budgets. In today's business environment, management accounting information is a critical factor in the effective management of organisations. The information for decision-making can be both financial and non-financial.

Management accounting can also be described as the process of measuring and reporting information about economic activity within organisations for use by managers in planning, performance, evaluation and operational control. The information should follow certain guidelines; for instance, it should be relevant, complete, accurate and clear. It should inspire confidence, it should be appropriately communicated, its volume should be manageable, it should be timely and its cost should be less than the benefits it provides. Techniques are methods used when applying practical skills in aggregating the information for decision-making.

According to Cairney et al. (2008:4) and Garrison, Noreen and Brewer (2007:4) management accounting focuses on providing essential information to better run the business. Management accountants in particular, are the accounting professionals who analyse management accounting information. The rule of thumb is that this information should be relevant to the organisation. Furthermore, this information assists and allows managers to work better in the future.

Management accounting can be used in various ways. Although management accounting information is predominantly used by managers in an organisation, management accounting information can also be the basis of a business plan. This business plan can be presented to other businesses such as financial institutions. Among other information, potential investors look at sales volumes, profit margins and costs. They will consider the financial needs of the business. In today's business environment, management accounting information is a critical factor in the effective management of organisations.

Management accounting is another way of looking into accounting, it relates to the use of non-financial and financial accounting information to make future business decisions of the organisation. It is widely acknowledged that, as a result of accounting compliance, businesses give considerable attention to financial accounting compared to management accounting. Pandikumar (2007:3) suggests that it is very important to distinguish between financial accounting and management accounting. This is demonstrated as part of Annexure B.

3.3.2 Financial information and non-financial information

Information provided by management accountants should be both financial and non-financial. Financial information is important for management because many objectives of an organisation are financial in nature. Examples of financial information includes; making profits and avoiding insolvency.

The importance of non-financial information within the reporting system should not be ignored as it is often the information which is most valuable to managers in their decision-making. Chapman, Hopwood and Shields (2009:1362) confirm that non-financial measures compliment short-run financial figures as indicators of progress towards a firm's long-term goal. This research will focus mostly on the techniques that can be expressed in formulas, equations and/or examples. However, it is important to note that financial information and non-financial information in management accounting are closely linked.

3.3.3 Advantages of management accounting

According to the Chartered Institute of Management Accountants (CIMA) Publishing (2011:3), management accounting is an integral part of management. It requires the identification, generation, presentation, interpretation and use of relevant information.

The main advantages of management accounting are as follows:

- Inform strategic decisions and formulate business strategy;
- Plan long, medium and short-run operations;
- Determine capital structure and fund that structure;
- Design reward strategies for executives and shareholders;
- Inform operational decisions;
- Control operations and ensure the efficient use of resources;
- Measure and report financial and non-financial information performance to management and other stakeholders;
- Safeguard tangible and intangible assets;
- Implement corporate governance procedures, risk management and internal controls.

3.3.4 Disadvantages of management accounting

The main disadvantages of management accounting are as follows:

- It is dependent on cost accounting and financial accounts and therefore the accuracy of it is also dependent on how accurate that data is;
- It is affected by the bias of top management and therefore it is likely that they may twist it in such a way so as to benefit themselves rather than shareholders;
- It does not follow accounting principles;
- It is difficult to be compared with other companies.

3.4 SELECTED MANAGEMENT ACCOUNTING TECHNIQUES

This section of the research will show the selected management accounting techniques. These techniques form the central part of the investigation within SMEs. The first technique for discussion will be the Activity Based Costing (ABC) technique.

3.4.1 ACTIVITY-BASED COSTING (ABC)

ABC is an approach for allocating overhead costs. It allocates overheads to multiple activity pools, and then assigns the activity cost pools to products and services by means of cost drivers. Hall and McPeak (2011:11) note that SMEs have been slow to adopt ABC and are often constrained by human and financial capital, whilst operating in a competitive environment.

Ndwiga (2010:18) states that there are no substantial differences between the implementation of ABC in cost centres belonging to a manufacturing organisation and cost centres of a service organisation. The ABC method can therefore be practised in both the service sector and manufacturing sector of the economy.

3.4.2 The objective of ABC

Proctor (2009:250) asserts that the main objective of ABC is to produce an accurate cost for each product. The thinking behind ABC is that, in order to control costs, it is necessary for it to be calculated accurately. The impact of this is that decisions such as setting selling prices will be more effective.

ABC achieves this increase in accuracy through a simple logic such as:

- Products cause activities to happen;
- Activities cause costs to be incurred.

3.4.3 Cost drivers

Cairney et al. (2008:159) and Garrison et al. (2007:322) indicate that a cost driver is also known as an activity measure and is a measure of resource consumption.

Below is a simple view indicating the composition of a cost driver.

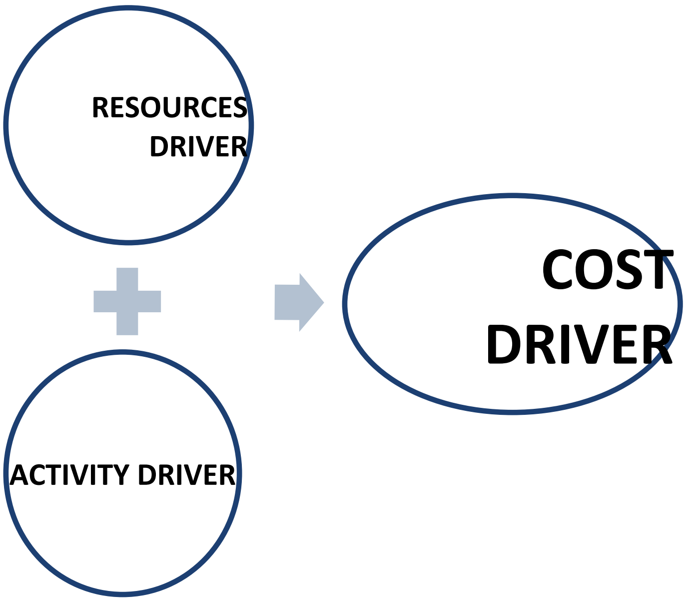

Figure 3.1: Cost drivers (Proctor, (2009:415)

Figure 3.1 is a simple view depicting the cost driver and the elements it is made up of.

3.4.4 Basic steps to implement ABC__

Seal (2011:125) and Drury (2012:257) advise that the basic steps to implement ABC costing that SMEs can follow, are as follows:

- Identify and define activities and activity pools;
- Wherever possible , directly trace costs to activities and cost objects;
- Assign costs to activity cost pools for each activity;

- Determine the cost driver for each major activity;
- Assign costs to cost objects using the activity rates and activity measures.

3.4.5 Advantages of ABC

According to Cairney et al. (2008:166) ABC is important for both decision-making and cost control purposes. Blocher et al. (2008:138) advise that customer profitability analysis is a major benefit when using ABC.

It is further emphasised that customer profitability analysis allows SMEs to:

- Identify the most profitable customers;
- Introduce profitable new products and services;
- Discontinue unprofitable products, service, or customers;
- Improve the process of customers;
- Provides a better type of after-sales service.

Chapman et al. (2009:1358) suggest that customer profitability analysis has not received enough attention over the years. Customer profitability analysis is very important in service industries where costs are an important element in customer behaviour. Hall and McPeak (2011:12) indicate that ABC can be effectively integrated into budget and planning processes. Furthermore, ABC provides great support for financial, operational and strategic decisions.

3.4.6 Disadvantages of ABC

According to Cairney et al. (2008:167) the disadvantages of ABC are as follows:

- Very expensive to implement this method;
- The reliability of the cost information is undermined;
- Discrepancy of cost information to usage activity;
- ABC assumes the relevance of overhead costs to that of decision-making.

The research objective will be to find out the extent to which ABC is used by SMEs.

3.5 STANDARD COSTING AND VARIANCE ANALYSIS

Standard costing and variance analysis is widely used in many large organisations. It is important for business to monitor their costs and revenues, especially where costs and revenue deviate from what was estimated.

3.5.1 The objective of standard costing

Budgeted and actual costs need to be examined in situations where major differences occur. Standard costing and variance analysis has been identified as an appropriate technique to assist SMEs to control cost.

Pandikumar (2007:349) and CIMA Publishing (2011:204) explain that standard costing is the use of standard costs, their comparison with the actual costs and analysis of variances. Standard costing can also be defined as a pre-determined cost of a product or service.

3.5.2 Example of standard costing

Standard cost minus (-) Actual cost = Variance. For example, if standard cost is R75 000 and the actual cost is R100 000 then the variance of R25 000 needs to be analysed and the cost should be reviewed. Drury (2008:452) suggests that standard costing can be used for many reasons. Reasons highlighted include planning, control and decision-making. The purpose of standard costing is to furnish information to management timeously by means of cost reports. Standard costing can be universally applied. Seal, Garrison and Noreen (2012:477) confirm that manufacturing, service and non-profit organisations can all make use of standard costing.

3.5.3 Variance analysis

Variances are the difference in profit which occur when things do not go according to the budget. When sales revenue changes, then profit will change. If total costs change, then profit will change. A variance can therefore be described as a change in profit caused by changes in either sales revenue or costs from their budgeted levels (Proctor, 2009:381). Standard costing and variance analysis are closely linked.

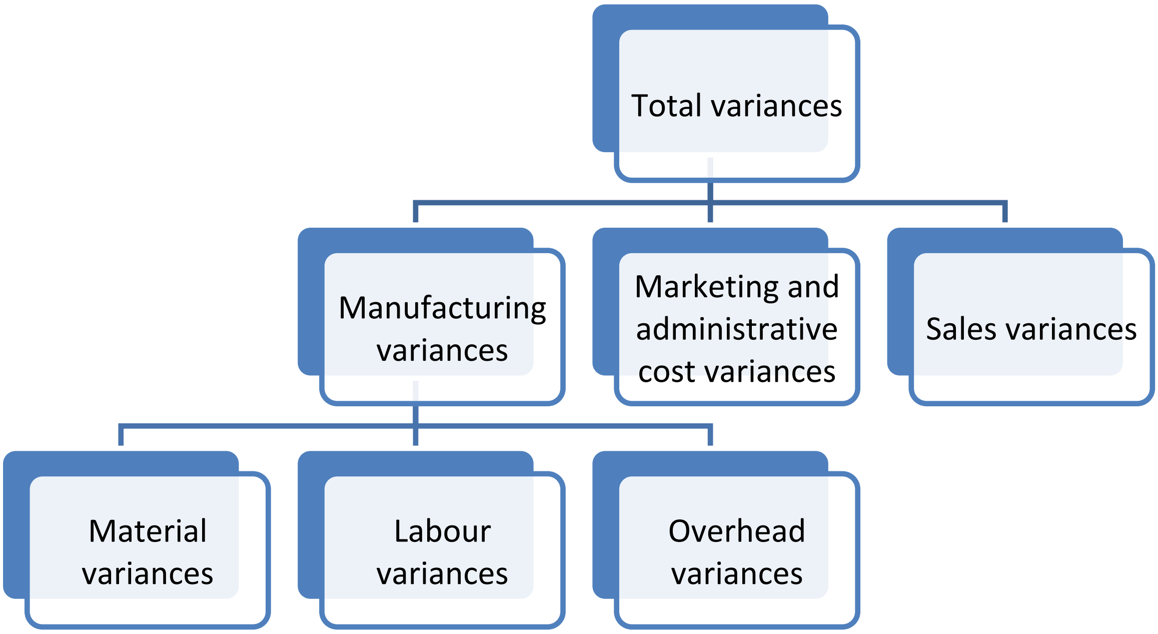

Figure 3.2: Variances (Proctor, 2009:392)

The above figure is a simple view indicating different types of variances. However, the research objective is to find out the extent to which variance analysis and standard costing are used by SMEs.

3.5.4 Advantages of standard costing and variance analysis

The main advantages of standard costing and variance analysis are as follows:

- Managers are alerted if cost varies from standards;
- It can promote economy and efficiencies;
- It can simplify bookkeeping;
- The standards establish what cost should be, who should be responsible for them, and whether actual cost is under control.

3.5.5 Disadvantages of standard costing and variance analysis

The main disadvantages of standard costing and variance analysis are as follows:

- The information in the reports may be useless because it is released untimely;
- Staff morale may be impacted negatively if managers are insensitive and use variance reports as a measure;

- Important objectives such as maintaining and improving quality, and customer satisfaction may be neglected;
- Just meeting standards may not be sufficient, continuous improvement in products and services is important for competitiveness.

3.6 COST-VOLUME-PROFIT (CVP) ANALYSIS

The Cost-volume-profit (CVP) analysis is a great technique that can be used in most organisations. It is important for SMEs to have a measure in terms of sales, cost and profit.

3.6.1 The objective of CVP analysis

This technique is especially important among SMEs in the start-up phase. However, this technique is also very useful to established businesses and can set the trajectory for continuous growth. According to Blocher et al. (2008:218) and Drury (2012:168) CVP analysis is a method for analysing the relationship between operating decisions and marketing decisions. This relationship is then examined to ascertain how it affects profit, based on an understanding of the relationship between variable cost, fixed cost, unit selling price and the output level.

The following points are always important to consider in the CVP analysis:

- Operating profit = Sales minus (-) Total costs;
- Contribution margin = Sales minus (-) Variable cost.

Break-even analysis and margins of safety form an important part of the CVP analysis.

3.6.2 Break-even analysis

Blocher et al. (2008:222) and CIMA Publishing (2011:125) suggest that one of the starting points in a business plan should be to calculate the break-even point. This is the point where revenues equal total cost and profit is zero. When SMEs sell more units, then the total contribution increases. There might be instances when total sales of the SMEs equal their fixed costs. When this occurs, the next unit sold will produce the first profits for the business. Break-even is a critical point where SMEs make neither a profit nor a loss.

The formula for break-even is as follows:

Break-even point in units sold =

3.6.3 Margin of safety

Another important equation in the CVP analysis is known as the margin of safety. This is the amount by which sales can drop before losses occur. The formula for margin of safety is total budgeted (or actual) sales minus (-) breakeven sales.

3.6.4 Advantages of CVP analysis

According to Seal (2011:51) CVP analysis seeks the most profitable permutation of variable costs, fixed costs, selling prices and sales volume. The contribution margin per unit has an influence on the steps a business is willing to take to improve profits.

The main advantages of CVP analysis are as follows:

- Setting prices for products and services;
- Introducing a new product or service;
- Replacing a piece of equipment;
- Determine the break-even point;
- Deciding whether to make or buy a given product or service;
- Determine the best product mix;
- Performing a strategic what-if-analysis.

It is also important to note that CVP analysis can help a business with their strategic operations by providing an understanding of how changes in its volume of sales affects cost and profits.

3.6.5 Disadvantages of CVP analysis

The main disadvantages of CVP analysis are as follows:

- When there are many products in production, there may be limitations and CVP analysis will have to be done for each specific product;
- It answers theoretical questions better than it provides actual answers for solving problems.

The research objective is to find out the extent to which CVP analysis is used by SMEs.

3.7 BUDGETING

A budget is an essential business tool. A budget informs business with regards to their financing needs while carrying out activities in their business.

3.7.1 The objective of budgeting

CIMA Publishing (2011:410) explains that a budget is a quantified plan of action relating to a given period of time. According to Seal et al. (2012:436) budgets are not only used as plans but act as control tools as well. Budgets show the objectives of SMEs, especially in areas such as sales, product line growth, number of personnel, and expenses. Budgets are commonly used in large organisations. Where no budget measurements exist, SMEs then become vulnerable to misallocation of funds in their business. This can lead to serious financial implications. There are various forms of budgets in manufacturing and service enterprises. For the purpose of this research, the sales budget and cash budget will be discussed to give a simple view of budgeting.

3.7.2 Sales budget

The sales budget is the primary budget for any business. It shows the quantities of each product that SMEs plan to sell and the prices of those products. The sales budget also supplies the necessary information when outlining the budgets for production costs and administrative expenses. Drury (2008:364) confirms that the sales budget is the foundation of all other budgets, since all expenditure is ultimately dependant on the volume of sales. As a result, the sales budget must be reliable.

3.7.3 Cash budget

Cash budgeting is very important for SME sustainability. The objective of the cash budget is to ensure that sufficient cash is available at all times to meet the operational requirements of business. The availability of cash will not always be a certainty. Drury (2008:369) asserts that the overall aim of business should be to manage the cash of the firm and allow the cash to grow accordingly.

There are a few things that need to be considered when doing a cash budget. Cairney et al. (2008:344) confirm that when drawing up a cash budget, the following should be considered:

- Only cash flow items are reflected in a cash budget. Non-cash items such as depreciation or provisions should not be part of the cash budget;
- The period in which a cash transaction occurs is the period in which the cash flow takes place, not the period for accounting purposes.

3.7.4 Advantages of budgeting

The main advantages of budgeting are as follows:

- Budgets force managers to think about and plan for the future;
- Budgets help to control and monitor operations;
- Budgets provide a means of communicating management plans throughout the organisation;
- The budget process provides a means of allocating resources to those parts of the organisation where they can be used most effectively.

3.7.5 Disadvantages of budgeting

The main disadvantages of budgeting are as follows:

- A budget is based on a set of assumptions, which can sometimes lead to inaccuracy;
- The budget process involves and affects people and may cause conflict;
- It can be very time-consuming to create a budget, especially in a poorly organised environment;
- An experienced manager may attempt to reduce revenue estimates and increase expense estimates to achieve favourable variances in the budget.

The above is a brief overview of budgeting. The research objective is to find out the extent to which budgeting is used by SMEs.

3.8 CAPITAL BUDGETING

Capital budgeting is often used in large firms that continue to expand their operations as part of their financial strategy. It is very important that SMEs have a financial strategy as well. According to CIMA Publishing (2011:28) financial strategy exists within the scope of financial management, which will include decisions on investments, financing and dividends. Furthermore, an organisation's financial manager is important in achieving the financial objectives of the organisation.

Capital budgeting is considered very important in SMEs' financial strategy. As SMEs grow, so might their capital requirements, therefore it is important to understand and consider capital budgeting techniques when SMEs are planning to expand. Capital expenditure also often represents a significant investment by an organisation. Successful capital investments are often results of projects undertaken by SMEs that are visionary or forward-looking in their business.

3.8.1 The objective of capital budgeting

Capital budgeting can be defined as the process of identifying, evaluating and implementing a firm's investment opportunities. Clayman, Fridson and Troughton (2012:48) explain that capital budgeting is the process that companies use for decision-making on capital projects, with a life span of one year or more. Furthermore, capital budgeting seeks to identify investments that will enhance a firm's competitive advantage and increase shareholder wealth. Poor capital budgeting can ultimately result in company bankruptcy.

Reasons for capital budgeting includes the following:

- Replacing worn or obsolete assets;
- Improving business efficiency;
- Acquiring assets for expansion into new products or markets;
- Acquiring another business;
- Complying with legal requirements;
- Satisfying workforce demands;

- Environmental requirements.

3.8.2 Mutually exclusive projects versus independent projects

Mutually exclusive projects are investments that compete in the same way for the company's resources, where a firm can select one or the other, but not both. Independent projects do not compete with the firm's resources. A company can select one, or the other, or both as long as they meet minimum profitability thresholds.

3.8.3 Unlimited funds versus capital rationing

If the firm has unlimited funds for making investments, then all independent projects that provide returns greater than some specified level, can be accepted and implemented. In many cases, firms face capital rationing restrictions since they only have a limited amount of funds to invest.

3.8.4 Accept versus ranking approaches

The accept/reject approach involves the evaluation of capital expenditure proposals to determine whether they meet the firm's minimum acceptance criteria. The ranking approach involves the ranking of capital expenditures on the basis of some predetermined measure, such as the rate of return.

3.8.5 Cash flows

From a capital budgeting perspective, cash flow and the timing thereof, are very important. Seal et al. (2012:375) and Drury (2012:309) state that the common type of cash outflow includes initial investments, new machinery, increased working capital, maintenance and incremental operating cost. Cash inflow includes items such as incremental revenues, reduction in cost, salvage value and the release of working capital.

3.8.6 Capital budgeting techniques

There are a number of capital budgeting methods which are used to assess how worthy financial investments are. The three techniques that the study intends to cover, include:

- Net present value (NPV);

- Internal rate of return (IRR);
- Discounted payback period.

3.8.7 Time value of money

In order to make use of capital budgeting techniques, it is very important that SMEs make use of the time value of money concept because a rand today will not hold the same value in years to come. The value of money changes with time. The sum of money now has a greater value than the same sum in a year's time because it can be invested for that year to earn interest. Proctor (2009:188) confirms that all future cash flows should be discounted to present values.

3.8.8 Net present value (NPV)

According to CIMA Publishing (2011:528) and several other authors (Drury 2008:302; Seal et al., 2012:373) the net present value (NPV) takes into account the time value of money. It involves estimating a project's future cash flows, discounting these cash flows at the company's required rate of return (cost of capital), and subtracting the cost of the investment from the gross present value. If the result is positive, this indicates that the project results in an increase in the value of the firm as the project earns more than the required rate of return. If the NPV is negative, then the project should be rejected. The NPV is an important element in long-term investment projects and SMEs need to have a look at its implications.

3.8.9 Advantages of NPV

The main advantages of NPV are as follows:

- Shareholder wealth is maximised;
- It takes into account the time value of money;
- It is based on cash flows which are less subjective than profit.

3.8.10 Disadvantages of NPV

The main disadvantages of NPV are as follows:

- It can be difficult to identify an appropriate discount rate;
- For simplicity, cash flows are sometimes all assumed to occur at year end and this assumption may be unrealistic;
- The technique is not so easy for certain managers to understand.

3.8.11 Internal rate of return (IRR)

Correia, Flynn, Uliana and Wormald (2013) and Seal et al. (2012:379) explain that the internal rate of return (IRR) is the discount rate that causes the present value of net future cash flows to equal the cost of the investment. It reflects the implicit return of the project stated in percentage terms. When SMEs use the IRR method to evaluate capital investment projects, they set a benchmark (minimum acceptable IRR for the project to go ahead). Furthermore, the decision rule is to accept the project with a higher IRR as compared to the cost of capital. The IRR is calculated by the trial and error method.

The internal rate of return method involves the following two steps:

- Calculate the rate of return which is expected from a project;
- Compare the rate of return with the cost of capital.

The factor of the internal rate of return =

The formula for IRR can be illustrated as follows:

IRR= lowest discount rate + [] X (the difference between discount rates).

3.8.12 Advantages of IRR

The main advantages of internal rate of return (IRR) are as follows:

- It takes into account the time value of money;
- Results are expressed as a simple percentage and are easy to understand;
- It shows how sensitive calculations are to changes in interest rates.

3.8.13 Disadvantages of IRR

The main disadvantages of the internal rate of return (IRR) are as follows:

- It cannot accommodate changing interest rates;
- Complex and time-consuming calculations;
- It assumes that funds can be invested at a rate equivalent to the IRR, which may be too high.

3.8.14 Discounted payback period

The payback method measures the time it takes for SMEs to recover the cost of the investment from the cash flows generated. It can be used as a basic indicator of risk, as it indicates how long the investments are at risk. However, Seal et al. (2012:388) indicates that the payback method is not a true measure of the profitability regarding the investment undertaken. It basically indicates how long the original investment will take to be recovered. The decision rule for SMEs is to accept the project with the shortest payback period. The longer the payback period, the longer cash is tied up in the project and the greater the risk.

3.8.15 Advantages of payback

The main advantages of the payback method are as follows:

- Simple to calculate and understand;
- Widely used in practice;
- Takes into account the time value of money, when discounted;
- Risk indicator.

3.8.16 Disadvantages of payback

The main disadvantages of payback method are as follows:

- Ignores the cash flows after the payback;
- Bias against long-term projects;
- Time value of money is ignored, if the method is not discounted.

The above is a brief overview of capital budgeting. The objective of the research is to find out the extent to which SMEs make use of capital budgeting techniques in their business.

3.9. RATIO ANALYSIS

Ratio analysis is used by many businesses as a financial measure. Ratio analysis is also likely to be practised by large firms. There are many financial ratios to measure the success of an organisation. Ratio analysis is an important part of financial management and can be regarded as a management accounting technique. Ratio analysis allows SMEs to have a look at a few relevant ratios and see how their business is doing.

3.9.1 The objective of ratio analysis

According to Clayman et al. (2012:357); Correia et al. (2013) and Garrison et al. (2007:795) the purposes of ratio analysis are as follows:

- To study the short-term solvency of the firm such as the liquidity of the firm;
- To study the long-term solvency of the firm;
- To interpret the profitability of the firm;
- To identify the operational efficiency of the firm.

3.9.2 Current ratio

This ratio is one of the important accounting ratios in finding out the ability of SMEs to meet their short-term financial commitments. The formula is:

Current Ratio=

The basic rule that SMEs should be aware of is, that current assets should always exceed current liabilities and that inventory and debtors should be converted to cash as quickly as possible.

Poor cash flow management has a negative effect on SMEs. Farrington and Venter (2011:213) confirm that poor cash flow management is one of the main reasons for business failure. Furthermore, SMEs simply run out of money and they need cash to keep going. This occurs because there is a lack of cash flow management. Liquidity and cash flow management are linked together. SMEs should forecast cash in advance so that the funds can be obtained in time and expenses paid as late as possible without incurring penalties. It is also important to realise that cash and profit are not the same. Cash measures the liquidity (ability to pay) and profits measure how efficiently the business is operating.

3.9.3 Debt–equity ratio

Many businesses should continue to consider how their business is financed and the implications it has on their business. The debt-equity ratio expresses the relationship between the outsiders' contribution and the shareholders' contribution through equity share capital, preference share capital and past accumulated profits. Clayman et al. (2012:366) confirm that a comparison is made between the uses of debt and equity as sources of capital to finance the company's assets.

As a rule of thumb, a high debt-equity ratio indicates a riskier financial status of the firm, which means that the firm has been financed by a bigger outsider fund than that of the owner's fund contribution and vice versa.

Debt-Equity ratio =

3.9.4 Activity turnover ratio/return on capital employed

The Activity turnover ratio highlights the relationship between sales and various assets. The ratio indicates how hard the SMEs' assets are working to generate sales. The return on capital employed (ROCE) is also regarded as one of the most important ratios SMEs can have a measure of. SMEs need to understand if their business is making good use of the money invested in it.

Proctor (2009:35) explains that the return on capital employed ratio is expressed as a percentage and shows the rate at which the business is earning profit relative to the amount of money invested.

ROCE = =

3.9.5 Advantages of ratio analysis

The main advantages of ratio analysis are as follows:

- It simplifies the financial statements;
- It helps comparing companies of different sizes and can act as a benchmark to which performance can be measured.

3.9.6 Disadvantages of ratio analysis

The main disadvantages of ratio analysis are as follows:

- Comparisons between companies might be misleading;
- Ratio analysis explains relationships between past information while users are more concerned about current and future information.

The above is an overview of ratio analysis. The objective of the research is to find out the extent to which ratio analysis is used by SMEs.

3.10 LINEAR PROGRAMMING/LIMITING FACTOR

Linear programming is used in many firms that deal with constraints. It is important for SMEs to have a look at the constraints in their business.

3.10.1 The objective of linear programming

The purpose of linear programming is to find solutions where a business has more than one potential constraint. Drury (2008:642) defines linear programming as “an influential mathematical technique that can be applied to the problem of rationing limited facilities and resources.’’ Businesses look at the optimum benefits derived from using the resources.

As a rule of thumb, SMEs need to continuously monitor their limiting factors in reaching their firm’s goals. This is especially good for planning and either maintaining or increasing their profitability. SMEs may have limited raw materials, limited direct labour hours available, limited floor space, limited advertising budgets and so forth. The important point to consider is determining the right combination of products and services to produce.

Profits can be increased by effectively managing the organisation’s constraints. Garrison et al. (2007:620) advise that one aspect of managing a constraint is to decide its best use. Furthermore, CIMA (2010:103) indicates that when limiting factors appear, SMEs should then rank the products or services in order of contribution ability of the limiting factor. When SMEs produce many products, all the product contributions per limiting factor should be calculated. This is to determine whether any products can be eliminated and to rank the products in order of the highest to lowest contribution per unit of the limiting factor.

3.10.2 Advantages of linear programming

The main advantages of linear programming are as follows:

- The highlighting of bottlenecks;
- The linear programming technique helps to make the best possible use of available productive resources.

3.10.3 Disadvantages of linear programming

The main disadvantages of linear programming are as follows:

- Linear programming is only applicable to problems where the constraints and objective function are linear;
- Factors such as uncertainty may not be taken into consideration;
- Focuses on maximising profit and may ignore other important aspects of a business.

The above is a brief overview of linear programming. The objective of the research is to find out the extent to which linear programming is used by SMEs.

3.11 JUST IN TIME (JIT)

The Just in Time (JIT) method has been used by many of the world's successful companies. When SMEs make use of the JIT production and stock control system, they purchase materials and produce units only when required.

3.11.1 The objective of JIT

Drury (2011:633), Seal et al. (2012:753) and Garrison et al. (2007:12) explain that the JIT purchasing technique seeks to ensure that delivery of materials immediately precedes their use. Furthermore, by arranging with suppliers for frequent delivery of materials, stocks can be cut to a minimum. The JIT inventory method can be an important technique in increased global competitiveness.

3.11.2 Advantages of JIT

The main advantages of just in time (JIT) are as follows:

- Defect rates are reduced, resulting in less waste and greater customer satisfaction;
- Inventory holding cost are minimised;
- Areas previously used to store stock are made available for other, more productive uses;
- Can meet changing demands of customers much better.

3.11.3 Disadvantages of JIT

The main disadvantages of just in time (JIT) are as follows:

- Vulnerable to disruptions in supply;
- Responding to periods of high demand could be a challenge;
- Input price changes might be affected where raw materials are not stocked in quantities.

The above is a brief overview of the JIT inventory method. The research objective is to find out the extent to which the JIT inventory method is used by SMEs.

3.12 ECONOMIC ORDER QUANTITY (EOQ)

Economic order quantity (EOQ) is used by many firms where demand is steady. However, it can be used when seasonal demand is encountered, but with caution.

3.12.1 The objective of EOQ

According to Foundations in Accountancy (FIA) and Association of Chartered Certified Accountants (ACCA) (2012:109) and Sinha (2009:438) the EOQ is the order quantity which minimises inventory cost and is the optimum order size. If there is a degree of certainty, then the optimum order will be determine by those costs that are affected by either the quantity of stocks held or the number of orders placed. Furthermore, if more units are ordered at one time, fewer orders will be required per year. The result will then be a reduction in ordering cost.

Drury (2011:623) and Seal et al. (2012:748) indicate that the EOQ process is relevant to applying a formula that integrates the basic relationships between holding and ordering costs and other quantities. Furthermore, these relationships can be stated as follows:

- The number of orders for a period is the total demand for that item of stock for the period (denoted by D) divided by the quantity ordered in units (denoted by Q);
- The total ordering cost is obtained by multiplying the number of orders for a period by the ordering cost per order (denoted by O), and is given by the formula:

X ordering cost per order =

If the holding costs are constant per unit, then the total holding cost for a period will be equal to the average stock for the period. This is then represented by the quantity ordered divided by two (), multiplied by the holding cost per unit (denoted by H).

X holding cost per unit =

The total relevant cost (TC) for any order quantity can be expressed as follows:

TC = +

The following expresses the economic order quantity Q:

Q = or Q =

The above is the equation for determining the economic order quantity.

3.12.2 Advantages of EOQ

The main advantages of economic order quantity are as follows:

- It is very specific to business, as firms know how much inventory to hold, when to re-order it and how many items to order;
- Minimises storage and holding cost.

3.12.3 Disadvantages of EOQ

The main disadvantages of economic order quantity are as follows:

- Complicated mathematical calculations;
- It is based on assumptions, as it does not account for seasonal or economic fluctuations.

The objective of this research is to find out the extent to which the EOQ method is used by SMEs.

3.13 PROGRAMME EVALUATION AND REVIEW TECHNIQUE (PERT)

PERT is a management accounting technique that is usually used by the construction industry. SMEs in the construction industry as well as SMEs in general, that do projects, usually apply this technique.

3.13.1 The objective of PERT

Niemand et al. (2006:517) and Vigario (2007:585) explain that PERT is used to plan projects, to establish completion dates and to control time schedules in a logical way. The PERT method uses probability factors to estimate the completion time of the project and seeks to minimise production bottlenecks, delays and interruptions.

There are three estimates made in respect of the duration of each activity:

O= optimistic time or minimum possible time in which the activity can be completed

W = probable time necessary to complete the activity

P = pessimistic time or maximum time in which the activity can be completed

The formula of PERT can be expressed as follows:

Expected time =

3.13.2 Advantages of PERT

The main advantages of the programme evaluation and review technique are as follows:

- Critical path analysis helps pinpoint activities that need to be watched closely;
- Easy concept and not mathematically complex;
- Graphical networks help to recognise relationship between project activities;
- Useful in monitoring cost and schedules.

3.13.3 Disadvantages of PERT

The main disadvantages of PERT are as follows:

- Time estimates tend to be subjective and may be subject to elusion by managers;
- Project activities have to be clearly defined, independent and stable in relationships;
- Too much emphasis may be placed on the longest or critical path.

The above is a brief overview of the PERT method. The objective of this research is to find out the extent to which the PERT method is used by SMEs.

3.14 CONCLUSION

Management accounting was discussed at the beginning of this chapter and it was shown that management accounting techniques are important. Furthermore, this chapter provided an overview of all the selected management accounting techniques the researcher intends to investigate within SMEs. The general aim of these techniques is to find out if SMEs use it and the extent to which it is used. There are a variety of advantages and disadvantages to all of these techniques. It is therefore important for SMEs to consider all aspects when exercising these techniques. The following chapter will discuss the research design and methodology of the study.

CHAPTER FOUR: RESEARCH DESIGN AND METHODOLGY

4.1 INTRODUCTION

In Chapter Two and Chapter Three, a literature review was conducted. This chapter will focus on the research methodology and design of the study. This includes the research design, structure of the questionnaire, research population and sampling, data analysis, reliability and validity.

4.2. Quantitative versus qualitative research

According to Welman, Kruger and Mitchell (2005:8) one of the major differences between the quantitative and qualitative methodologies can be explained as follows:

- Quantitative research evaluates objective data consisting of numbers;
- Qualitative research deals with subjective data that are produced by the minds of respondents and interviewees.

The researcher found it appropriate to make use of quantitative research as the most appropriate method of obtaining the relevant data.

4.3 Research design

Creswell (2009:3) clarifies that research designs are plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collections and analysis. The selection of the research design is also based on the nature of the research problem statement. This research makes use of a survey. The survey design provides a quantitative or numeric description of views of a population by studying a sample of that population.

The survey was used in the form of a self-administered questionnaire. This questionnaire appropriately used close-ended questions and a Likert scale. This questionnaire leads to quantitative data. Horn (2012:102) explains that quantitative methods refer to a group of methods in which the main focus is on quantities. Secondly, a quantitative method leads to numbers as the main data and it is normally analysed with statistical measures. In addition, a quantitative method is a means for testing objective theories, by examining the relationships among variables. The chosen sample and other statistical measures should be well understood. The research design of the study is relevant to achieve the research objectives.

4.4 Structure of the questionnaire

All the questionnaires distributed to the respondents consisted of the same content and follow the same structure. The Nelson Mandela Metropolitan University (NMMU) has a web survey that students can use and adjust to their needs. After consultation with the web system staff at NMMU, the researcher found it appropriate to make use of the web survey. A Microsoft Word version of the questionnaire was also distributed to the targeted population for reasons where SMEs deem it more convenient compared to the web survey. The format of the web survey and Microsoft Word version had the same information and followed a similar structure.

The questionnaire consists of three sections. Section A contains questions relating to the biographic information about the respondents such as job title, the total years of experience in the financial function, competence in management accounting and academic qualifications. Section B includes questions relating to the background of the business such as the size of the firm and financial information. Section C includes specific aspects regarding management accounting techniques. This section makes use of a Likert scale. The Likert scale consists of phrases where SMEs/respondents can choose one option on a scale of 1-5 (1 indicating strongly disagree and 5 indicating strongly agree). The questions were appropriately phrased to achieve the objectives of the study and complied with the university's ethical procedures.

4.5 Survey methodology

The purpose of the survey research is that inferences can be made about the population in the sample. The survey is inexpensive to design and another advantage is the possibility of the rapid turnaround in data collection. Hofstee (2006:122) advises that when doing a survey-based research, the researcher should be careful of:

- The type of questions being asked;
- How the question is asked;
- The sample size;
- How representative the sample is;
- Time and cost factors;
- Ethical questions.

The researcher considered the above points when doing the survey.

4.6 Research population and sampling

A population may be defined as the set of individuals, items or data from which a sample is taken (Horn, 2012:104). The target population of this study is organisations that employ less than two hundred employees and that are considered a small-medium enterprise (SME). The specific personnel completing the questionnaire in these organisations should ideally be the financial manager, management accountant or a person competent in finance. These enterprises must be operational in Nelson Mandela Bay. The population was available from Nelson Mandela Bay Chamber of Commerce, Business Partners and the database of Transnet. The reasons for using the database of these organisations were as follows:

- The Nelson Mandela Bay Business Chamber engages with SMEs regularly. At the time of conducting the research, the Nelson Mandela Bay Business Chamber of Commerce had more than eight hundred businesses within their database. This database represents the Nelson Mandela Bay area with a vast number of SMEs being part of the database;
- Business partners are working with SMEs and specialising in certain business activities within this sector as well;
- Transnet has many suppliers that are classified as SMEs within the Nelson Mandela Bay area. These SMEs conduct business with Transnet regularly. In addition, the SMEs are business compliant to the extent that Transnet only does business with SMEs that are registered businesses and tax compliant.

The SME population is relevant and representative to complete the objectives of the study.

4.7 Sampling method

According to Gaidhane, Khatib and Seyed (2012:23) sampling methodology is that part of statistical practice concerned with the selection of individual observations/cases intended to yield some knowledge about a population of concern, especially for the purpose of statistical inference. The sampling method of this study is purposive sampling. Furthermore, Horn (2012:106) explains that purposive sampling is when the researcher has a specific purpose in mind concerning the sample in use.

4.8 Data analysis

Data analysis forms an important part of this research. The questionnaire was designed in such a way that the responses can be captured on a spreadsheet, while measurements were analysed using statistical techniques. Descriptive and inferential statistics were used to analyse the data gathered. This was put in tabular and graphical form. The detail is shown in Chapter Five.

4.9 Reliability and validity

Validity refers to the extent to which a measure actually measures what it is meant to measure. Biggam (2011:143) indicates that valid research is research that is acceptable to the research community. Valid data are considered accurate. For data to be valid, the researcher needs to check for measurement, transcription and non-sampling errors.

Internal validity threats are experimental procedures, treatments, or experiences of the participants that threaten the researcher's ability to draw correct inferences from the data about the population in an experiment. External validity threats arise when experimenters draw incorrect inferences from the sample data to other persons, other settings, and past or future situations. The researcher made every attempt to ensure that the results are worthwhile and followed processes that were tested before.

According to Biggam (2011:144) reliable empirical research is when the research results are trustworthy. Reliability refers to the degree of similarity of information obtained when the measurement is repeated in the same subject. In quantitative research, the consistency of measurement over time is taken in consideration. This research has followed methodology that is reliable. The researcher provided SMEs enough time to complete the questionnaire and explained the nature of the study. Participants were also informed to contact the researcher if they are unclear with regards to the objectives of the study. The participants completed the questionnaire with the best knowledge they had at the time of conducting the research.

4.10 CONCLUSION

In this chapter, the research design and methodology selected for the study were discussed. It was highlighted that a quantitative approach has been selected for the study. It was also indicated that the researcher prepared a self-administered questionnaire. The sample selected was briefed upon. The reliability and validity were discussed. The next chapter will discuss in more detail the population and response rate of the empirical study, as well as the findings, analysis and interpretation of the survey results.

CHAPTER FIVE: EMPIRICAL STUDY AND PRESENTATION OF RESULTS

5.1 INTRODUCTION

In this chapter, the response rate, biographical details and information with regards to the applicability and use of management accounting techniques will be discussed. The findings of the self-administered questionnaire will be deliberated upon. This data will be analysed statistically and illustrated with the support of tables and figures. The findings of the research conducted, will give effect to the objectives of this study.

5.2 RESPONSE RATE

The self-administered questionnaires were addressed to small-medium enterprises (SMEs) within Nelson Mandela Bay. The banking, agriculture, government and mining industries were excluded from this study. These questionnaires were addressed to the management accountants, financial managers and staff members competent in finance, so that SMEs can give valid feedback. A total of 53 questionnaires were received and only 50 were usable out of the 126 SMEs that were targeted. This gives it a response rate of approximately 42%.

Many of the SMEs did not reply and were unwilling to participate even after the researcher followed up regularly. Reasons resided along the following:

- They did not have competent staff members to complete the questionnaire;
- They were too busy with their day to day activities and did not have time to complete the questionnaire;
- They had auditors on their premises and were busy with year-end ;
- The labour force in their industry is undergoing protests;
- They were restructuring their business;
- They were unsure of the management accounting aspects of their business.

All the questionnaires were administered by the researcher to the SMEs. Before the questionnaires were forwarded to the SMEs, the researcher telephonically briefed the participants about the intention of the study. Furthermore, all questionnaires were accompanied by a letter of informed consent to ensure that the respondents were well informed of the nature and intention of the study.

5.3 SECTION A: BIOGRAPHICAL DETAILS OF RESPONDENTS

This section shows the biographical details of the respondents.

Table 5.1: Response rate by job title

Job title	Frequency distribution	Percentage (%)
Financial Director	7	14
Financial Manager	26	52
Management Accountant	10	20
Accounting Assistant or Financial Accountant	7	14
Total	**50**	**100**

Table 5.1 shows the respondents according to the job title they hold. Most of the respondents (52%) were Financial Managers in their industry. This is followed by Management Accountants making up 20% of respondents. Financial Directors with a response rate of 14% and Financial/Assistant Accountants with a response rate of 14% make up the balance of the respondents.

Table 5.2: Response rate by experience in financial function

Experience	Frequency distribution	Percentage (%)
0-5 years	10	20
More than 5 years to 10 years	13	26
More than 10 years	27	54
Total	**50**	**100**

Table 5.2 shows the respondents according to their experience in a financial function. Most of the respondents (54%) have more than 10 years of experience in a financial function, while 46% of the respondents have less than 10 years of experience in a financial function.

Table 5.3: Response rate by management accounting competency

Competency	Frequency distribution	Percentage (%)
I have a qualification relevant to management accounting	5	10
I have experience relevant to management accounting	21	42
I have a qualification and work experience relevant to management accounting	19	38
I have no qualification and no work experience relevant to management accounting	5	10
Total	**50**	**100**

Table 5.3 shows the competency of respondents in relation to management accounting. Most of the respondents (42%) have experience relevant to management accounting. This is followed by 38% of respondents who have a qualification and work experience relevant to management accounting. A total of 10% of respondents indicated that they have a qualification in management accounting, while a total of 10% of respondents indicated that they have no qualification or work experience relevant to management accounting.

Table 5.4: Response rate by academic qualifications

Qualification	Frequency distribution	Percentage (%)
Matric certificate	13	26
National diploma	15	30
Bachelor degree	10	20
Honours degree	8	16
Masters degree	2	4

Doctorate degree	1	2
Total	**49**	**98**
Missing	1	2
Total	**50**	**100**

Table 5.4 shows the qualifications of the respondents. Most of the respondents (30%) have a National diploma. This is followed by 26% of respondents who only have a matric certificate. A Bachelor degree makes up 20% of respondents. The remaining respondents (22%) have a post graduate qualification such as an Honours degree (16%), Masters degree (4%) and Doctorate degree (2%).

5.4 SECTION B: COMPANY DETAILS OF RESPONDENTS

This section shows the company details of the respondents.

Table 5.5: Response rate by sector

Sector	Frequency distribution	Percentage (%)
Secondary sector	33	66
Tertiary sector	16	32
Other	1	2
Total	**50**	**100**

Table 5.5 shows the sector in which the respondents operate. The majority of respondents (66%) operate in the secondary sector (manufacturing sector) of the economy, while 32% operate in the tertiary sector (service sector) of the economy.

Table 5.6: Response rate by years in business

Years	Frequency distribution	Percentage (%)
0-10 years	8	16
More than 10 years to 25 years	23	46

More than 25 years	19	38
Total	**50**	**100**

Table 5.6 shows the number of years the respondents are in business. The majority of respondents (46%) have been in business for more than 10 years, but less than 25 years. This is followed by 38% of respondents who have been in business for more than 25 years. Only 16% of respondents have been in business for less than 10 years.

Table 5.7: Response rate by number of employees

Employees	Frequency distribution	Percentage (%)
0-25 employees	22	44
26-50 employees	10	20
51-99 employees	7	14
100-200 employees	11	22
Total	**50**	**100**

Table 5.7 shows the respondents by number of employees in their business. The majority of respondents (44%) have less than 25 employees in their business. This is followed by 22% of respondents who have between 100-200 employees. The remaining 34% of respondents have between 26-99 employees. This is made up as follows; 20% of respondents have 26-50 employees and 14% of respondents have 51-99 employees.

Table 5.8: Response rate by annual turnover in rand

Turnover in rand	Frequency distribution	Percentage (%)
0-R1 million	2	4
Between R1 million –R10 million	15	30
Between R10 million-R50 million	16	32
Above R50 million	15	30

Total	**48**	**96**
Missing	2	4
Total	**50**	**100**

Table 5.8 shows respondents by annual turnover (in rand) in their business. Most respondents (32%) generate between R10 million and R50 million in annual turnover. This is followed by 30% of respondents who accumulate above R50 million in annual turnover and 30% of respondents who accumulate between R1 million and R10 million in annual turnover. Only 4% of respondents accumulate less than R1 million in annual turnover.

Table 5.9: Response rate by total assets in rand

Assets in rand	Frequency distribution	Percentage (%)
0-R1 million	10	20
Between R1 million-R10 million	16	32
Between R10 million-R50 million	12	24
Above R50 million	10	20
Total	**48**	**96**
Missing	2	4
Total	**50**	**100**

Table 5.9 shows the respondents by total assets (in rand). Most respondents (32%) have assets worth more than R1 million but less than R10 million. This is followed by 24% of respondents who have assets worth more than R10 million but less than R50 million. Only 20% of respondents have assets worth less than R1 million and 20% of respondents have assets worth above R50 million.

Table 5.10: Response rate by personnel dealing with management accounting activities

Personnel	Frequency distribution	Percentage (%)
Accounting Assistant or Financial Accountant	12	24
Management Accountant	8	16
Financial Manager	18	36
Financial Director	9	18
Total	**47**	**94**
Missing	3	6
Total	**50**	**100**

Table 5.10 shows the personnel that are dealing with the management accounting activities. Majority of respondents (36%) indicated that the Financial Manager is dealing with the management accounting activities. This is followed by 24% of respondents indicating that the Financial/Assistant Accountant deals with the management accounting activities. Only 6% of respondents did not indicate the personnel dealing with the management accounting activities of their business. While 18% of respondents specified that the Financial Director deals with the management accounting activities, only 16% of the respondents indicated that the Management Accountant deals with the management accounting activities of their business.

5.5 SECTION C: SELECTED MANAGEMENT ACCOUNTING TECHNIQUES

The responses with regard to the phrases in the survey were combined into one score. The scores were calculated as an average of the individual phrases. The Likert scale was used for the phrases in the questionnaire. Since the scale is from 1 (strongly disagree) to 5 (strongly agree), a high value score (close to 5) means that an individual tends to agree with the phrases listed. On the other hand, a low score (close to 1) means an individual tended to disagree with the phrases listed. A score close to 3 means that an individual is neutral and has a tendency to either disagree or agree with the phrases listed.

As an aid for interpreting these scores, the scale of 1 to 5 was divided into three equal length intervals and the interpretation is given as follows:

Low (tend to disagree) =1 - 2.33

Medium (neutral perception) = 2.34 - 3.67

High (tend to agree) = 3.68 – 5

Table 5.11: Descriptive statistics

Categories	Valid responses	Mean	Median	Minimum	Maximum	Standard Deviation	Skewness
Use	50	3.11	3.20	1.00	5.00	0.79	-0.15
Applicable	50	3.33	3.40	1.60	5.00	0.84	0.08
Advantages	50	3.86	3.80	2.60	5.00	0.73	0.10
Disadvantages	50	3.12	3.00	1.00	5.00	0.73	-0.15

Table 5.11 shows the scores of the descriptive statistics.

SMEs were asked to what extent they agree or disagree on the advantages of the selected management accounting techniques. The results are shown in Figure 5.1.

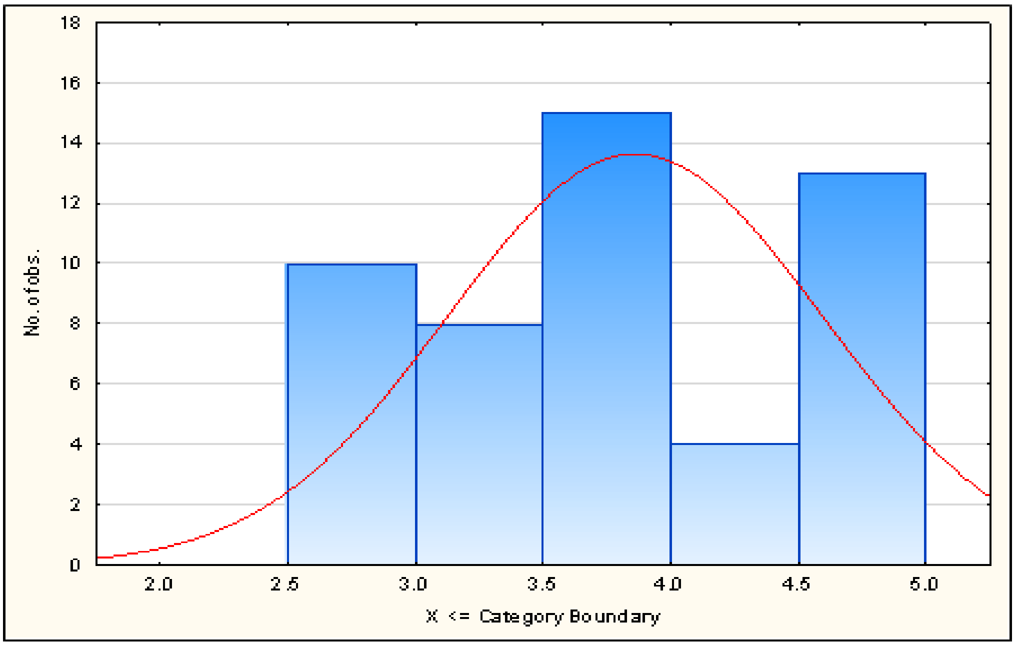

Figure 5.1: Response with regards to the advantages

Figure 5.1 shows the extent to which SMEs agree or disagree on the advantages of the selected management accounting techniques. The following scores were received:

Mean=3.86

Median=3.8

Standard deviation 0.73

This indicate a high score, which means that the majority of SMEs agree on the advantages of management accounting as presented in the literature study.

SMEs were asked to what extent they agree or disagree on the disadvantages of the selected management accounting techniques. The results are shown in Figure 5.2.

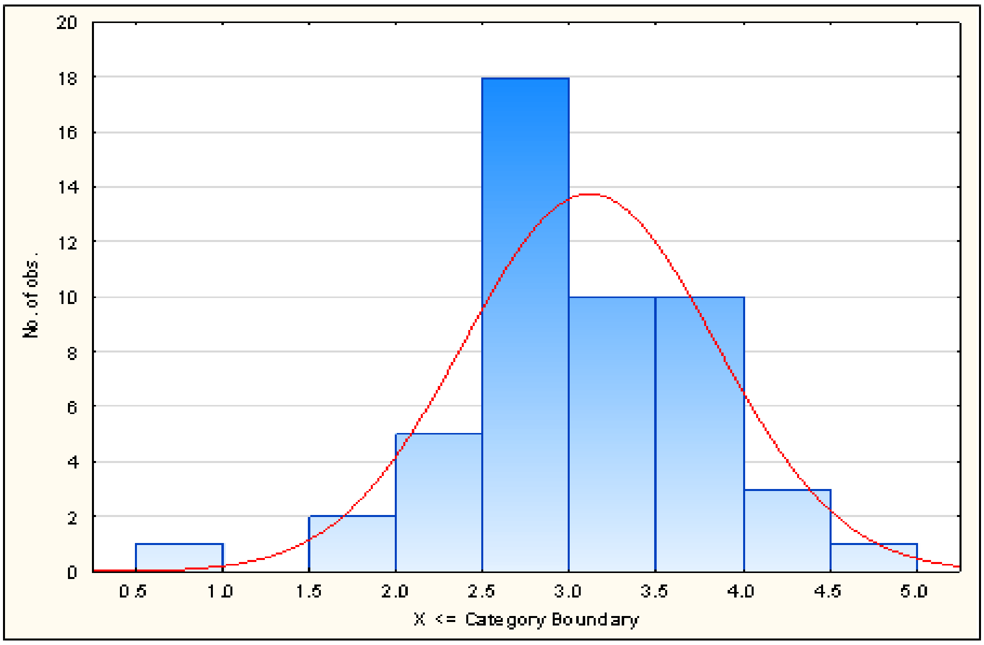

Figure 5.2: Response with regards to the disadvantages

Figure 5.2 shows the extent to which SMEs agree or disagree on the disadvantages of the selected management accounting techniques. The following scores were received:

Mean =3.12

Median = 3.00

Standard deviation=0.73

This indicates a medium score, which means that the majority of SMEs responses were neutral to the disadvantages of management accounting techniques presented in the literature study.

SMEs were asked to what extent they agree or disagree that their organisation uses the selected management accounting techniques. The results are shown in Figure 5.3.

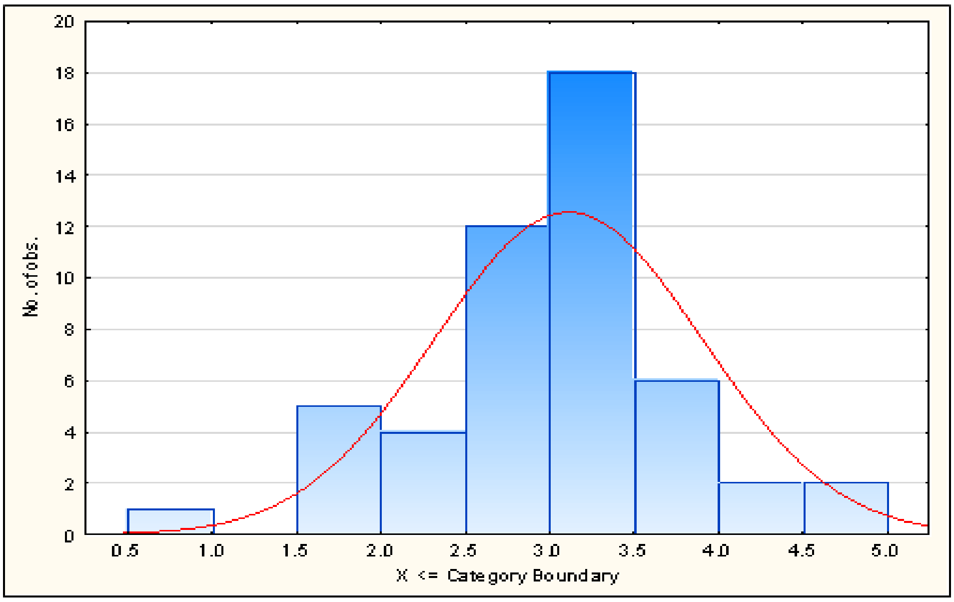

Figure 5.3: Response with regards to the usage

Figure 5.3 shows the extent to which SMEs use the selected management accounting techniques within their business.

Mean =3.11

Median =3.2

Standard deviation =0.79

This indicates a medium score, which means the majority of respondents are neutral to the usage of the selected management accounting techniques.

SMEs were asked to what extent they agree or disagree that the selected management accounting techniques are applicable within their organisation. The results are shown in Figure 5.4.

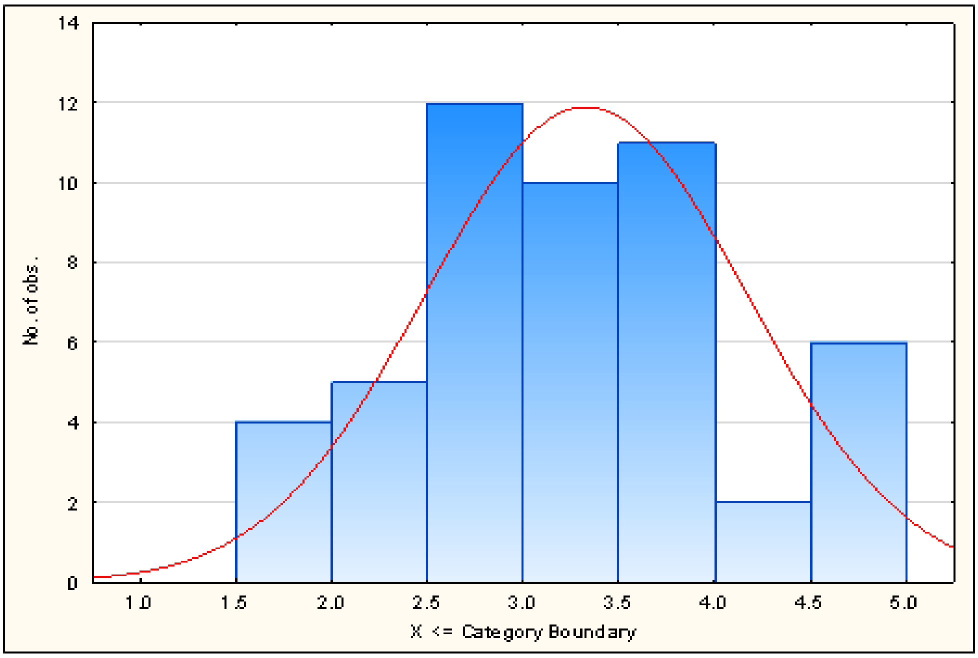

Figure 5.4: Response with regards to the applicability

Figure 5.4 shows the extent to which SMEs agree or disagree that the selected management accounting techniques are applicable within their business.

Mean =3.33

Median =3.40

Standard deviation =0.84

This indicates a medium score, which means the majority of respondents have a neutral perception with regards to the applicability of the selected management accounting techniques in their business.

5.6 THE IMPACT OF USING SELECTED MANAGEMENT ACCOUNTING TECHNIQUES ACCORDING TO SIZE (TOTAL TURNOVER, TOTAL ASSETS AND NUMBER OF EMPLOYEES)

SMEs were asked the total of their annual turnover in rand, total assets in rand and number of employees in their business. Table 5.12 shows the impact of the annual turnover with regards to the usage of the selected management accounting techniques.

Table 5.12: Impact according to annual turnover

Breakdown table of descriptive statistics			
Annual Turnover	**Means**	**Frequency**	**Standard deviation**
R10m below	3.12	17	0.87
Between R10m and R50m	3.03	16	0.86
Above R50m	3.17	15	0.74
All Groups	**3.10**	**48**	**0.81**
Analysis of Variance			
	F	**p**	
USE	0.11	0.8983	

(No statistically significant differences ($p>0.05$))

Table 5.12 shows the impact according to annual turnover; no statistical significant differences exist with regards to the usage of selected management accounting techniques within SMEs.

SMEs were asked the total of their assets in rand. Table 5.13 shows the impact of the total assets with regards to the usage of the selected management accounting techniques.

Table 5.13**:** Impact according to total assets

Breakdown table of descriptive statistics			
Total assets	**Means**	**Frequency**	**Standard deviation**
0-R1 million	2.91	10	0.64

Between R1million-R10 million	3.29	16	0.76
Between R10 million-R50 million	3.01	12	1.12
Above R50 million	3.12	10	0.63
All Groups	**3.10**	**48**	**0.81**
Analysis of Variance			
	F	**P**	
USE	0.51	0.68072	

(No statistically significant differences (p>0.05))

Table 5.13 shows the impact according to the rand value of total assets; no statistical significant differences exist with regards to the usage of the selected management accounting techniques within SMEs.

SMEs were asked the total number of employees within their business. Table 5.14 shows the impact of the total number of employees with regards to the usage of the selected management accounting techniques.

Table 5.14: Impact according to total number of employees

Breakdown table of descriptive statistics			
Number of employees	**Means**	**Frequency**	**Standard deviation**
0 to 25 employees	3.17	22	0.64
26 to 50 employees	3.20	10	1.19
51 to 99 employees	2.84	7	0.62
100 to 200 employees	3.08	11	0.82
All Groups	**3.11**	**50**	**0.79**
Analysis of Variance			
	F	**p**	
USE	0.34	0.7990	

(No statistically significant differences (p>0.05))

Table 5.14 shows the impact according to total number of employees; no statistical significant differences exist with regards to the usage of the selected management accounting techniques within SMEs.

5.7 RELATIONSHIPS AMONG FACTORS

Pearson correlation was determined and tested for statistical significance among factors. Table 5.15 show this.

Interpretations are as follows:

< 0.3 = weak correlation

0.3 - 0.49 = moderate correlation

0.5 < =Strong correlation

Table 5.15: Correlations among categories

CATEGORY	USE	APPLICABLE	ADVANTAGES	DISADVANTAGES
USE	1.000			
APPLICABLE	0.709	1.000		
ADVANTAGES	0.409	0.680	1.000	
DISADVANTAGES	0.093	0.029	0.117	1.000

Table 5.15 indicates that the relationship between using the selected management accounting techniques and the applicability of the selected management accounting techniques are strongly correlated. The applicability of the selected management accounting techniques and advantages of using the selected management accounting techniques are strongly correlated as well. The use of the selected management accounting techniques and advantages of the selected management accounting techniques are moderately correlated. The disadvantages of the selected management accounting techniques do not correlate.

5.8 CONCLUSION

The main conclusion to emerge from this chapter is that the researcher made use of descriptive and inferential statistics. These statistics include the frequency distribution, mean, median and standard deviation. The relationships among factors were highlighted as well by means of the Pearson correlation test. The following chapter will discuss the findings in relation to the objectives of the research. Thereafter, recommendations and areas for possible future research will be discussed.

CHAPTER SIX: SUMMARY AND CONCLUSIONS

6.1 INTRODUCTION

As stated in Chapter One, management accounting techniques are important not only in large firms but in SMEs as well. Furthermore, limited research exists with regards to the practises of management accounting techniques by SMEs. The literature study highlighted that SMEs are important in the economy and the use of management accounting techniques is an important tool in the success of these enterprises.

The main purpose of this research is to find out the extent to which selected management accounting techniques are practised by SMEs in Nelson Mandela Bay. This will give a basis for future research of a similar nature. This chapter will highlight the important findings of the literature study and the survey in particular by addressing the research objectives. After this, recommendations and areas for possible future research will be discussed.

6.2 SIGNIFICANT FINDINGS RELATED TO THE RESEARCH OBJECTIVES

In Chapter One, the primary research objective was broken down into five interrelated sub-objectives to give an understanding of the main area of study. These research objectives will now be discussed.

6.2.1 Findings: Research objective one

The main goal of the first objective was to give a contextual framework with regards to SMEs and its management accounting needs. The main findings to come out include:

- SMEs have financing and capital issues;
- Management accounting information can assist SMEs with regards to the financial risks undertaken in the business;
- SMEs face regulatory challenges and have little government support;
- SMEs contribute significantly to employment and the economy as a whole;
- SMEs are an important sector within communities;

- Significant developments are taking place within Nelson Mandela Bay and SMEs with the right skills can benefit from these developments;
- Financial management skills are important for the financial sustainability of SMEs;
- SMEs also need sophisticated management accounting techniques as in larger firms;
- Management accounting techniques are considered useful in SMEs;
- Apart from usual accounting compliance, SMEs seek management accounting advice as well. However, it was noted, that many small enterprises find it difficult to afford skilled management accounting staff.

6.2.2 Findings: Research objective two

The main goal of the second research objective was to illustrate and discuss the selected management accounting techniques. Furthermore, to elicit information with regards to the extent SMEs agree or disagree on the advantages and disadvantages of the management accounting techniques covered in the literature study. The advantages and disadvantages were summarised in the survey and distributed to the SMEs. The majority of SMEs agree on the advantages of the selected management accounting techniques, while the majority of SMEs were neutral as to the disadvantages of the selected management accounting techniques. This finding suggests that SMEs are focussed more towards the advantages of the selected management accounting techniques than the disadvantages of the techniques in theory.

6.2.3 Findings: Research objective three

The main goal of the third objective was to find out who deals with the management accounting aspects within SMEs. In a standard organisational structure, the management accountant would be the ideal person dealing with the management accounting activities. The main finding to come out in this objective is that only 16% of respondents indicated that their management accountant is dealing with the management accounting activities, while 36% indicated that the financial manager deals with the management accounting activities. This finding suggests that there is only a small percentage of SMEs that have a management accountant in their business and/or the management accounting activities are mostly controlled by the financial manager.

6.2.4 Findings: Research objective four

The main goal of the fourth objective was to find out the extent to which the selected management accounting techniques are practised by SMEs and to evaluate how the size of the firm impacts on the practises of the techniques. The size of the firm is measured by the magnitude of turnover, assets and number of employees. The main finding to come out in this objective, is that the majority of respondents indicated a neutral perception with regards to the usage of the selected management accounting techniques. Furthermore, no significant statistical differences exist between turnover, assets and number of employees. This could be as the result of the sample group being more or less homogenous in terms of size.

6.2.5 Findings: Research objective five

The main goal of the fifth objective was to find out the extent to which SMEs agree or disagree that the selected management accounting techniques are applicable to their organisation. The main finding to come out in this objective, is that the majority of respondents indicate a neutral perception with regards to the applicability of the selected management accounting techniques.

6.3 RECOMMENDATIONS

The main recommendations for this study include:

- SMEs should consider the function of a management accountant to deal with the management accounting activities within their business. SMEs will benefit if they have dedicated individuals specialising in management accounting;
- Government, large firms and communities should assist and support SMEs, wherever possible, so that SMEs can continue to make a meaningful impact in the economy. Government should create an enabling environment for SMEs to thrive. Large firms should trade with smaller firms economically and the community should continue to consume products and services from small firms. However , smaller firms should continue to engage with communities as far as their need for certain products and services are concerned;
- Researchers should do more relevant research in future with regards to SMEs' management accounting activities and their management accounting needs.

6.4 AREAS FOR POSSIBLE FUTURE RESEARCH

This study investigated the extent to which selected management accounting techniques are practised by SMEs within Nelson Mandela Bay. To make a comparison and enhance the research, it is suggested that similar research should be conducted in other cities within South Africa. Furthermore, additional contemporary management accounting techniques can be incorporated in the study.

Secondly, future research can highlight how the use of selected management accounting techniques is influenced by the industry in which SMEs operate. The various industries for example could include:

- Agriculture;
- Mining and quarrying;
- Manufacturing;
- Retail;
- Transport;
- Communication;
- Finance and business;
- Catering and accommodation;
- Electricity, gas and water;
- Other services.

Thirdly, since a homogenous group was selected for the study, future research can incorporate larger companies and make use of a bigger population. SMEs can then be compared to large firms in the study.

Lastly, although the majority of respondents were exposed to management accounting, either in theory or in practice, it was shown that a small percentage of SMEs indicated that the management accountants are dealing with the management accounting activities. Furthermore, only a small percentage of respondents who completed the survey were functioning as a management accountant. Future research can elicit information on the importance of creating a specific function, as management accountant, within SMEs and elicit perceptions among SMEs for such a function.

6.5 CONCLUDING REMARKS

This research indicated that the practises of management accounting techniques are important within SMEs. The findings, with regards to the extent to which SMEs use management accounting techniques, were neutral. The findings, with regards to the applicability of the selected management accounting within SMEs, were neutral as well. The combined results, with regards to the extent to which SMEs use and deem the selected management accounting techniques applicable, were strongly correlated. The research findings of this study cannot be generalised. However, this research provides a basis for future research. Recommendations and areas for possible future research were discussed and should be carefully considered.

REFERENCE LIST

Amorós J.E. & Bosma, N. 2013. *Global Entrepreneurship Monitor* (GEM). [Online]. September 08. Available at: http://www.gemconsortium.org/> [Accessed 08 September 2014].

Anderson, A. 2013. State to print newspaper for SMEs amid red-tape backlash. *The Herald*: [Online] September 04. Available at: http://www.theherald.co.za> [Accessed 04 September 2013].

Biggam, J. 2011. *Succeeding with your master's dissertation: A step-by-step handbook*. 2nd ed. Berkshire: McGraw-Hill.

Billings, L. 2014. [Personal communication]. November 3.

Blocher, E.J., Stout, D.E., Cokins, G. & Chen, K.H. 2008. *Cost management*. *A strategic emphasis*. 4th ed. New York: McGraw-Hill/Irwin.

Butler, L. 2013. SME's are the only way to provide jobs. *The Herald*, 11 April, p.12.

Cairney, C., Chivaka, R., Fourie, H., Haji, A.M., Pienaar, A., Roos, S., Stack, L., Swartz, G. & Williams, J. 2008. *Principles of management accounting: A South African perspective*. Cape Town, South Africa: Oxford University Press Southern Africa.

Chapman, C.S., Hopwood, A.G. & Shields, M. D. 2009. *Handbook of management accounting research*. Volume 3. Oxford: Elsevier.

Chartered Institute of Management Accountants (CIMA) Publishing. 2011. *Financial strategy*. Paper F3.Oxford: Elsevier.

Chartered Institute of Management Accountants (CIMA) Publishing. 2011. *Fundamentals of management accounting*. Paper C01.Oxford: Elsevier.

Chartered Institute of Management Accountants (CIMA). 2010. *Performance strategy*. Paper P3. London: BPP Learning Media.

Clayman, M.R., Fridson, M.S. & Troughton, G.H. 2012. *Corporate finance. A practical approach.* 2nd ed. New Jersey: John Wiley & Sons.

Correia, C., Flynn, D., Uliana, E. & Wormald, M. 2013. *Financial management*. 7th ed. Cape Town: Impression Print Solutions.

Creswell, J.W. 2009. *Research design: qualitative, quantitative and mixed methods approaches*. 3rd ed. London: SAGE Publications.

De Kock, G. 2013. [Personal communication]. September 3.

Drury, C. 2008*. Management and cost accounting: student's manual*. 7th ed. London: Cengage Learning EMEA.

Drury, C. 2011*. Management and cost accounting*. 7th ed. London: Cengage Learning EMEA.

Drury, C. 2012. *Management and cost accounting*. 8th ed. London: Cengage Learning EMEA.

Eastern Cape Business. 2013. *The guide to business and investment in the Eastern Cape Province*. [Online]. December 05. Available at http://www.easterncapebusiness.co.za< [Accessed 05 December 2013].

Eybers, C. 2010. *Copreneurships in South African small and medium-sized family businesses*. MA dissertation. Port Elizabeth: Nelson Mandela Metropolitan University.

Farrington, S.M. & Venter, E. 2011. *Starting and managing your own business*. 2nd ed. Port Elizabeth: Lectern Publishing.

Figg, M.J. 2006. *The development of guidelines to assist small and medium enterprises in the Eastern Cape to develop from necessity-based to opportunity- based entrepreneurs*. Doctoral thesis. Port Elizabeth: Nelson Mandela Metropolitan University.

Foundations in Accountancy (FIA) & Association of Chartered Certified Accountants (ACCA). 2012. *Management accounting*. Paper. F2. 2nd ed. London: BPP Learning Media.

Gaidhane, A., Khatib, M. & Syed, Z.Q. 2012. *Steps involved in research methodology for writing dissertation/thesis*. Saarbrücken: Lap Lambert Academic Publishing.

Garrison, R.H, Noreen, E.W. & Brewer, P.C. 2007. *Managerial accounting*. 11th ed. Singapore: McGraw-Hill/Irwin.

Hall, O.P. & McPeak, C.J. 2011. Are SME ready for ABC? (Abstract). *Journal of Accounting and Finance,* 11 (4):11-22.

Hofstee, E. 2006.*Constructing a good dissertation: a practical guide to finishing a Master's, MBA or PhD on schedule* .Johannesburg, South Africa: EPE.

Horn, R. 2012. *Researching and writing dissertations: a complete guide for business and management students*. 2nd ed. London: Chartered Institute of Personnel and Development.

Jones, G. 2013. SMMEs in dire straits. *News 24*: [Online]. June 13. Available at: http://www.news24.co.za> [Accessed 13 June 2013].

Kgosana, C. 2013. Small businesses don't last. *The Herald*: [Online]. May 16. Available at: http://www.theherald.co.za> [Accessed 16 May 2013].

Kumar, R. 2011. *Research methodology* .3rd ed. London: Sage Publications.

May, D. 2013. IT can give you a competitive advantage. *Succeed,* 36-39, Apr.

Megginson, L.C., Byrd, M.J & Megginson, W.L. 2006. *Small business management*: *an entrepreneurial guide*. 5th ed. New York: McGraw-Hill/Irwin.

Moore, C.W, Petty, J.W., Palich, L.E. & Longnecker, J.G. 2006. *Managing small business: an entrepreneurial emphasis*.14th ed. Ohio: South-Western Cengage Learning.

Mungadze, S. 2013. State fails to devise broadband strategy. *The Herald*, 11 April. p13.

Nandan, R. 2010. Management accounting needs of SMEs and the role of professional accountants: a renewed research agenda. *Journal of Management Accounting Research*, 8(1):65-77.

National Small Business Amendment Act. 2003. Government Gazette. February 09. Available at: http://www.saica.co.za [Accessed 09 February 2014].

Ndwiga, N.M. 2010. *The role of management accounting in creating and sustaining competitive advantage*. *A case study of Equity Bank, Kenya.* MA-Thesis. University of South Africa.

Neag, R., Masca, E. & Pascan, I. 2010. Research on the field tests in Mures County Romania regarding the opportunity for different accounting requirements for small entities or micro entities. *Accounting and Management Information Systems*, 9(2): 305-329.

Niemand, A.A., Meyer, L., Botes, V.L. & Vuuren, S.J. 2006*. Fundamentals of management accounting*. Revised 5th ed. Durban: Lexisnexis Butterworths.

Olusola, O.A. 2011. Accounting skills as a performance factor for small business in Nigeria. *Journal of Emerging Trends in Economics Sciences*, 2(5): 372-378.

Pandikumar, M.P. 2007. *Management accounting: theory and practice*. New Delhi: Excel Books.

Prince, S.N. 2008. *Assessing quality management systems of SMME's in the manufacturing sector*. Master's. Port Elizabeth: Nelson Mandela Metropolitan University.

Proctor, R. 2009. *Managerial accounting for business decisions*. 3rd ed. Essex: Pearson Education.

Seal, W., Garrison, R.H. & Noreen, E.W. 2012. *Management accounting*. 4th ed. Berkshire: McGraw-Hill Education.

Seal, W.B. 2011. *Management accounting: for business decisions*. New York: McGraw-Hill.

Sinha, P.K. 2009. *Financial management*: *tools and techniques*. New Delhi: Excel Books.
South African Press Association (SAPA). 2013. Govt. launches plan for small business. *News 24*: [Online]. July 03. Available at: http://www.news24.co.za> [Accessed 03 July 2013].

South African Press Association (SAPA). 2013. Review regulation for SME's, urges DA. *News 24*: [Online]. July 03. Available at: http://www.news24.co.za> [Accessed 03 July 2013].

South African Revenue Service (SARS). 2013. *Tax Guide*. December 09. Available at: http:www.sars.gov.za/< [Accessed 09 December 2013].

Stefan, M. 2012. Management accounting in Eastern Europe. *International Journal of Business Research*, 12(3):161-169.

Strauss, S.D. 2012. *The small business bible*. 3rd ed. New Jersey: John Wiley & Sons.

Sunter, C. 2013. *Key imperatives that small-medium enterprises need to consider in a business unusual environment*. Port Elizabeth: Chamber of Commerce.

Vigario, F. 2007. *Managerial accounting*. 4th ed. Pietermaritzburg: Interpak Books.

Welman, C., Kruger, F. & Mitchell, B. 2005. *Research methodology*. 3rd ed. South Africa: Oxford University.

Yaghubi, F.S., Moradi, M.A. & Mehrdad, M. 2011. Pathology of accounting systems and financial reporting for small business*. International Journal of Business Administration*, 2(4):75-83.

Annexure A: Questionnaire and supporting documents

08 May 2014

Dear Sir/Madam

THE EXTENT SELECTED MANAGEMENT ACCOUNTING TECHNIQUES ARE PRACTISED BY SMEs IN NELSON MANDELA BAY

I am currently doing research to find out the extent to which selected management accounting techniques are practised by small-medium enterprises (SMEs). SMEs are considered businesses that have up to 200 employees among other quantitative measures.

This questionnaire is primarily addressed to the management accountant or financial manager, but may also be completed by a staff member competent in the finance department. This survey contains a brief introduction with instructions on the first page and can be accessed by clicking on the link below or copy and paste the link into your browser.

http://forms.nmmu.ac.za/websurvey/q.asp?sid=1256&k=hwlmiwckir

Ps. should you have any difficulty accessing the above link, I have attached a Microsoft Word version which will have to be emailed to me.

Please note that this questionnaire is designed in such a manner that all types of companies must be able to complete it, whether management accounting techniques are used or not. It will be appreciated if you could participate, complete and submit the questionnaire by 08 July 2014 for it to be a success.

- Participation is voluntary
- Data/info will be kept confidential
- Participation can be done anonymously
- Participants can withdraw at any time without penalty
- Completion of the questionnaire will be considered as implied consent

Should you have any queries or encounter any problems while completing the questionnaire, do not hesitate to contact me on 084 9135 745, s20239524@nmmu.ac.za or alternatively wavenkorkie@gmail.com

Regards,

Waven Korkie
Student number: 20239524
……………………………………………………………..

MTech (Cost and Management Accounting**)**

Nelson Mandela Metropolitan University (N.M.M.U)
Ethics Reference number: H14BES-ACC-057

STRICTLY CONFIDENTIAL QUESTIONNAIRE

SURVEY ON THE EXTENT SELECTED MANAGEMENT ACCOUNTING TECHNIQUES ARE PRACTISED BY SMEs IN NELSON MANDELA BAY

Research Leader: W.M Korkie

SECTION A

Biographical Details

1.1 Which of the following relates closest to your current job title?

Financial Director
Financial Manager
Management accountant
Accounting Assistant

1.2 How many years of experience in a financial function do you have?

0 to 5 years
More than 5 years to 10 years
More than 10 years

1.3 What is your competency in management accounting?

I have a qualification relevant to management accounting
I have experience relevant to management accounting
I have a qualification and work experience in management accounting
I have no qualification and no work experience in management accounting

1.4 What is your highest academic qualification?

Matric certificate
National diploma
Bachelor degree
Honours degree
Master’s degree
Other (please specify) ……………………………………….

SECTION B

Company Background

2.1Please indicate in which sector of the economy your company primarily operate:

Primary sector (mining, forestry, farming, fishing, quarrying and so forth).
Secondary sector (engineering, manufacturing, construction and so forth).
Tertiary sector (retail, entertainment, transport and distribution, healthcare, law, financial, cleaning and so forth).

Other (please specify) …………………………………………………………

2.2 How long has your organisation been in business?

0-10 years
More than 10 years to 25 years
More than 25 years

2.3 What is the number of employees in your company?

0 to 25 employees
26 to 50 employees
51 to 99 employees
100 to 200 employees

2.4 Please indicate the approximate annual turnover or sales in rand in your organisation:

0-R1million

Between R1million-R10 million

Between R10 million-R50 million

Above R50 million

2.5 Please indicate the approximate rand value of total assets in your organisation:

0-R1 million

Between R1 million-R10 million

Between R10 million –R50 million

Above R50 million

SECTION C

Management Accounting

3.1 Who deals with the management accounting activities in your company?

No-one

Financial accountant

Management accountant

Financial manager

Financial Director

Other (please specify)……………….

3.2 Please indicate to what extent you agree or disagree that your organisation currently makes **use** of the following management accounting techniques:

	Management accounting techniques		**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
3.2.1	Activity Based Costing (ABC)		1	2	3	4	5
3.2.2	Cost volume profit analyses (CVP)such as breakeven and so forth		1	2	3	4	5
3.2.3	Variance analyses/Standard costing		1	2	3	4	5
3.2.4	Budgeting such as sales budgets, cash budgets and so forth		1	2	3	4	5
3.2.5	Capital Budgeting such as NPV, IRR, Payback method and so forth		1	2	3	4	5
3.2.6	Ratio analyses such as liquidity ratios, profitability ratios and so forth		1	2	3	4	5
3.2.7	Limiting factors/Linear programming techniques where constraints exist		1	2	3	4	5
3.2.8	Just in time Inventory (JIT)		1	2	3	4	5
3.2.9	Economic order quantity (EOQ)		1		3	4	5
3.2.10	Programme evaluation review technique(PERT)		1	2	3	4	5

3.3 Please indicate to what extent you agree or disagree that the following management accounting techniques are **applicable** in your organisation:

	Management accounting techniques		**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
3.3.1	Activity Based Costing (ABC)		1	2	3	4	5
3.3.2	Cost volume profit analyses (CVP)such as breakeven and so forth		1	2	3	4	5
3.3.3	Variance analyses/Standard costing		1	2	3	4	5
3.3.4	Budgeting such as sales budgets, cash budgets and so forth		1	2	3	4	5
3.3.5	Capital Budgeting such as NPV, IRR, Payback method and so forth		1	2	3	4	5
3.3.6	Ratio analyses such as liquidity ratios, profitability ratios and so forth		1	2	3	4	5
3.3.7	Limiting factors/Linear programming techniques where constraints exist		1	2	3	4	5
3.3.8	Just in time Inventory (JIT)		1	2	3	4	5
3.3.9	Economic order quantity (EOQ)		1		3	4	5
3.3.10	Programme evaluation review technique(PERT)		1	2	3	4	5

3.4 Below you will find each selected management accounting technique with a summary of their **advantages**. To what extent do you agree or disagree on the statements made in the advantage column:

	Management Accounting Techniques		Advantages	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.4.1	Activity Based Costing (ABC)		Assist with decision making and cost control purposes; helps with customer profitability analysis.	1	2	3	4	5
3.4.2	Cost volume profit analyses (CVP)		Setting prices for products and services; determines the breakeven point and best product mix.	1	2	3	4	5
3.4.3	Variance analyses/Standard costing		It can promote economy and efficiencies; when cost deviate managers become alerted.	1	2	3	4	5
3.4.4	Budgeting		Budgets forces managers to think and plan for the future; it provides a means of communicating such plans.	1	2	3	4	5
3.4.5	Capital Budgeting		Takes into account time value of money; based on cash flows and percentages.	1	2	3	4	5
3.4.6	Ratio Analyses		It simplifies financial statements; assist with financial analysis.	1	2	3	4	5
3.4.7	Limiting factors/Linear programming		Helps to make best possible use of available productive	1	2	3	4	5

			resources; highlighting bottlenecks.					
3.4.8	Just in time Inventory (JIT)		Working capital is bolstered by the recovery of funds that are tied up in stock; less waste and greater customer satisfaction.	1	2	3	4	5
3.4.9	Economic order quantity (EOQ)		Minimise storage and holding cost; it is business specific and indicates when to re-order inventory.	1	2	3	4	5
3.4.10	Programme evaluation review technique(PERT)		Useful when controlling and scheduling large projects; graphical networks help to recognise relationship among project activities.	1	2	3	4	5

3.5 Below you will find each selected management accounting technique with a summary of their **disadvantages**. To what extent do you agree or disagree on the statements made in the disadvantage column:

	Management Accounting Techniques		Disadvantages	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.5.1	Activity Based Costing (ABC)		Very expensive to implement; reliability and accuracy of cost information can be undermined.	1	2	3	4	5
3.5.2	Cost volume profit analyses (CVP)		It answers hypothetical questions better than it provides actual answers for solving problems.	1	2	3	4	5
3.5.3	Variance analyses/Standard costing		Information may be useless because it is untimely released; staff morale may be low if variance reports are used as a measure.	1	2	3	4	5
3.5.4	Budgeting		Budgets are based on a set of assumptions, can be time consuming to create; possible budget slacks such as tweaking the revenue and expenses to achieve favourable variances.	1	2	3	4	5
3.5.5	Capital Budgeting		It is not easy to understand for certain managers; difficult to identify appropriate discount rate.	1	2	3	4	5
3.5.6	Ratio Analyses		Explains relationships of past information, while users are more concern about future information.	1	2	3	4	5
			Factors of					

3.5.7	Limiting factors/Linear programming		uncertainty such as weather conditions might not be taken into consideration; only applicable where constraints are linear.	1	2	3	4	5
3.5.8	Just in time Inventory (JIT)		Vulnerable to disruptions in supply, input prices changes may have an effect.	1	2	3	4	5
3.5.9	Economic order quantity (EOQ)		Complicated math calculations; it is based upon assumptions and requires continuous monitoring.	1	2	3	4	5
3.5.10	Programme evaluation review technique(PERT)		Time estimates tend to be subjective; project activities have to be clearly defined, independent and stable in relationship.	1	2	3	4	5

Annexure B: A comparison between Financial Accounting and Management accounting

	Point of difference	Financial Accounting	Management Accounting
1	Objectives	The supply of information about the enterprise through profit and loss account and balance sheet to outside parties. Mainly for external use.	Information is supplied with the purpose of making decisions for internal use only.
2	Analysis of performance	It extends over the total performance of the firm in general.	It deals with detailed analysis of performance of each and every department of the organisation.
3	Utilisation of data	It handles only the past data of the enterprise.	It envisages the future policies and plans.
4	Nature	It is a measure of performance i.e. more objective.	It is a judgement of performance i.e. more subjective.
5	Accuracy of results	It has to ensure the accuracy forever.	It needed not; instead it is mainly for internal use depends upon approximation.
6	Legal responsibility	Compulsory	It is not compulsory but optional.
7	Limitations	It provides room only for monetary transaction.	It considers monetary and non- monetary transactions at a time together- qualitative changes are considered.

8	Exercise the past of control	Being the contributor of past information; not able to monitor the plans properly.	It is able to highlight the deviations of the actual from the plans and earmark the reasons of deviations.

Source: Pandikumar (2007:3)

The above table indicates a big difference in the outlook of financial accounting and management accounting. Both viewpoints are important but achieve different results.