Cape Peninsula
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THE USE OF MANAGEMENT ACCOUNTING TOOLS TO IMPROVE THE BUSINESS PERFORMANCE OF SMALL AND MEDIUM MANUFACTURING ENTERPRISES IN CAPE TOWN

by

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DECLARATION

I, Sandrine Reine Kibangou, declare that the contents of this thesis represent my own unaided work, and that the thesis has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

Signed **Date**

ABSTRACT

This study investigates the extent to which manufacturing small and medium enterprises use management accounting tools (MATs) to improve their business performance. The study was based on two MATs, namely budgeting tools and the strategic management tool (SMT), such as the balanced scorecard (BSC), which are considered critical for the sustainability of SMEs. The study was positioned within a quantitative research approach and data was collected from 82 respondents by means of a questionnaire consisting of closed-ended questions. The collected data was analysed using SPSS (version 25.0) software and presented in the form of tables, frequencies and figures, such as bar and pie charts, in order to understand the trends. The findings revealed that of the two MATs, only a few respondents used the BSC while the majority of respondents used budgeting tools. The results also indicate that certain respondents mostly used MATs, such as the BSC and budgeting tools, for improving their business performance. The BSC was perceived to be the most effective MAT, while the budgeting tools were rated second. This study suggests that some training programmes could be developed for use within the various sector education and training authorities (SETAs) which will assist in educating the SMEs‟ decision-makers on the importance of implementing MATs

Keywords: Management Accounting tools, Budgets, Balanced scorecards, Business performance, Manufacturing SMEs

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GLOSSARY

ACRONYM	EXPLANATION
BSC	Balanced Score Card
CIMA	Chartered Institute of Certified Accountants
DTI	The Department of Trade and Industry
GDP	Gross Domestic Product
MATs	Management Accounting Tools
NSBA	National Small Business Amendment Acts
PMTs	Performance Measurement system
SEDA	Small enterprises Development Agency
SETA	Sector Education and Training Authorities
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Sciences
STATSA	Statistics South Africa

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Every year several businesses are set up and many face challenges that they are unable to overcome and thereby fail (Fagbemi & Adeyemi, 2016). In South Africa, small and medium enterprises (SMEs) provide about 53.9% of employment while making a significant contribution of up to 34.8% to the national gross domestic product (GDP) (Ntsika, 2001). Scheers and Makhitha (2016) assert that in most African countries SMEs contribute more than 50% to employment and GDP, representing over 90% of private sector. Due to their significant contribution to GDP, entrepreneurship and job creation, they are recognised as a driver of socio-economic growth both in developed and developing countries, particularly the manufacturing sector (Karadag, 2015).

The manufacturing sector is defined by Economywatch (2010) as those industries involved in the manufacturing and processing of items, either through the creation of new commodities or in the addition of value. The products can either serve as finished goods for sale to customers or as intermediate goods used in a production process. The manufacturing SMEs‟ sector was selected because it is one of the most important sectors of the South African economy in terms of output and employment, and most of the manufacturing activities are performed by SMEs (Olawale, Herbst & Lombard, 2010).

In 2012, it was reported that the manufacturing SMEs in South Africa employed more than 1.7 million people, and composed of 15% of the GDP, making it one of the top three sectors in terms of value addition and job creation (Manufacturing Circle, 2012). This shows that manufacturing SMEs are important for the development of the South African economy. The South African government recognises the critical contribution of SMEs in general, and has proactively supported them through policies, strategies and agencies (South Africa, 1996). Despite the inherent potentials, the manufacturing SMEs in particular are currently underperforming in South Africa.

Between 2006 and 2011 more than 440 000 small business owners closed their businesses and 300 000 manufacturing jobs have so far been lost (Manufacturing Circle, 2012). In 2014, Statistics South Africa (Stats SA) conducted a survey of the manufacturing sector covering 15 000 enterprises and revealed that the number of employees had decreased over a 10year period from 1.44 million in 2005 to 1.19 million in 2014 (Lehohla, 2016). Prior studies attribute the underperformance of these entities to the owners‟ inability to plan and control the

financial activities of their organisation (Berry, 2011), the lack of knowledge and skills (Matsoso & Benedict, 2014) particularly the management accounting skills (Shaku, 2011:181), and the ineffective use of management accounting tools (MATs) (Maduekwe, 2015).

Management accounting tools (MATs) are instruments that enable management accountants to improve performance, facilitate decision-making, support strategic goals and objectives (CIMA, 2013:3). Management accounting consists of a set of tools for strategic management (balanced scorecard tool – BSC) and for planning and control (budgeting tool), to mention but a few (CIMA, 2013). These tools are briefly discussed below.

The BSC is a tool that assists organisations to transmit their strategies in the form of a set of operational goals to various parts of organisation (Iranzadheh, Nojehdeh & Emami , 2017), while a budget is a plan or document which predicts revenues and expenditure of a specific entity for a stated period (Abdullahi, Abubakar, Kuwata & Muhammad, 2015). These tools are some of the MATs that can be used to support sustainable business success (CIMA, 2013:5; Eldenburg, Brooks, Oliver, Wolcott, & Vesty, 2011:510). However, not all the MATs could be listed because it is practically impossible to investigate all that could be used by manufacturing SMEs in a single study. Hence, only a strategic management tool (SMT) such as the BSC and the budgeting tools are the focus of this study. These MATs were selected because they are extensively used by large organisations but also largely ignored by SMEs (Nandan, 2010). The focus of the study is the implication of the usage of these MATs on performance.

The performance of any business depends mostly on the employed techniques and tools which should be appropriate in order to accommodate changes, and achieve organisational goals (Alosani, AL-Dhaafri & Yusoft, 2016). The business performance can be viewed in terms of financial and non-financial performance, where financial performance refers to a measure of how well a company can use assets from its primary mode of business and generate revenue (Mill, 2008; Gichaaga, 2013). It is linked to profit, economic growth, wealth creation and sales growth (Reynolds, Bygrave & Autio, 2004; Idowu, Olusola, & Olawale, 2017). The non-financial performance refers to measures that provide the company information that cannot be measured in monetary units (Eldenburg et al., 2011:699) and it is associated with competitive advantage and increase in productivity (Reynolds et al., 2004; Idowua et al., 2017).

Martins and Mergulhao (2006) are of the opinion that the non–financial performance measures must be added with financial performance measures to reflect the complexity of most organisations. In this regard, this study emphasises on the BSC.

The BSC provides an overall structure of organisational management from basic objectives to high objectives, and clear and precise definitions of an organisation's objective can improve performance (Ramezani & Beiglou, 2014). The BSC captures four perspectives, under either the financial and non-financial perspectives, which are customer satisfaction, internal business processes, learning or growth (Mahmoud, 2014). These are the most fundamental drivers of a business success (Kairu, Wafula, Okaka, Odera & Akerele, 2013). Businesses are required to think in terms of all the four perspectives to prevent a situation in which improvements are made in one area at the expense of another (Chimtengo, Kandawire & Hanif, 2017). The other tool to be discussed is budgeting tool.

In order to attain certain objectives, decision-makers need to plan and control the activities of the business (Ankrah, Mensah & Atta, 2015). One of the major tools of effective business planning and control is the budget as it helps all types of companies to plan and control their operations (CIMA, 2008). In addition, budgets are also specified as an organisation activity performance measuring, control, and evaluation instrument which helps to detect the reason behind company successes and failures (Shcherbina & Tamuleviciene, 2016).

Despite the aforementioned potential advantages of the BSC and budgets to enterprises, past studies in other countries have revealed that most of these entities do not use the BSC while measuring their performance, and some decision-makers of these entities think that there is no reason to adopt the BSC because it is too time consuming to implement and use (Giannopoulos, Holt, Khansalar & Cleanthous, 2013).

Some prior studies in other countries also revealed that most of these entities do not adequately prepare budgets (Olusola & Oluwaseun, 2014,). Failure to budget has been identified as one of the causes of underperformance of businesses (Maduekwe & Kamala, 2016). This is because these entities lack knowledge on how to prepare budgets, and have a lack of adequate resources and MAT consciousness (Ocran, Gyabaah, Hope & Asare, 2017).

The aim of the study was to investigate the extent to which manufacturing SMEs in Cape Town use MATs, particularly the strategic management tool such as the BSC and budgets to improve their business performance, and get managers, accountants, and owners to share their views regarding these two MATs. Though the use of these tools by businesses has been lengthily researched over the years in developing countries, little has been done in South Africa (Maduekwe, 2015; Ahmad, 2012). Hence, there is a dearth of research on the use of MATs, particularly in the manufacturing SMEs. Given the importance of the manufacturing SMEs in job creation, and considering their underperformance it was vital that the use of MATs by these entities be investigated.

1.2 Statement of Research Problem

The problem to be investigated in this research is that the manufacturing SMEs operating in Cape Town are perceived to be underperforming partly due to their lack of utilisation of MATs, particularly the strategic management tool such as the BSC and budgets.

According to Giannopoulos et al. (2013), most SMEs do not use the BSC to measure their performance, and some decision-makers think that there is no reason to adopt the BSC because it is too time consuming to implement and use. Decision-makers of SMEs give more importance to the traditional financial measures (Matsoso, 2014), which do not present a complete picture of the businesses‟ performance, and does not ensure accuracy, neutrality and relevance of these measures in the business environment (Kaplan, 2012; Maduekwe & Kamala, 2016). In addition, decision-makers of these entities do not prepare budgets. According to Maduekwe and Kamala (2016) failure to budget has been identified as one of the causes of underperformance of SMEs.

Without the application of MATs, decision-makers may find it challenging to improve their performance and any improvement measure of their operation (Matambele & Van der Poll, 2017), and take decisions that will help them to achieve their goal.

1.3 Purpose of research

The main purpose of the study is to investigate the extent to which manufacturing SMEs in Cape Town use MATs, particularly the strategic management tools, such as the BSC and budgets, to improve their business performance. The manufacturing SMEs‟ sector was selected because it is one of the most important sectors of the South African economy in terms of output and employment, and most of the manufacturing activities are performed by SMEs (Olawale, Herbst & Lombard, 2010).

1.4 Research question, sub-questions, research methods and objectives

1.4.1 Research question

The research question for this study is:

To what extent do manufacturing SMEs in Cape Town utilise MATs such as the BSC and budgets to improve their business performance?

1.4.2 Sub-questions, research methods and objectives

The research sub-questions, method and objectives are shown in Table 1.1 below

Table 1.1: Sub-questions, research method and objectives

Research sub-questions	Research method	Research objectives
Do manufacturing SMEs in Cape Town use MATs such as the BSC and budgets?	Questionnaire underpinned by descriptive analysis and literature review	To determine whether the manufacturing SMEs in Cape Town use MATs, such as the BSC and budgets.
What types of the BSC measures and budgets are used by manufacturing SMEs in Cape Town?	Questionnaire underpinned by descriptive analysis and literature review	To ascertain the types of BSC measures and budgets used by manufacturing SMEs in Cape Town.
Are MATs, such as the BSC and budgets, used by manufacturing SMEs to improve their business performance?	Questionnaire underpinned by descriptive analysis and literature review	To find out whether manufacturing SMEs in Cape Town use MATs, such as the BSC and budgets to improve their business performance.
What are the perceptions of manufacturing SMEs in Cape Town on the effectiveness of the current MATs, such as BSC and budgets used in their organisation?	Questionnaire underpinned by descriptive analysis and literature review	To determine the perceptions manufacturing SMEs in Cape Town on the effectiveness of the current MATs, such as BSC and budgets used in their organisation.

1.5 Overview of the research methodology

1.5.1 The Empirical Study

The research was empirical and descriptive in nature since its main intention was to describe the research problem in the form of a perception. It fell within the ambit of the positivistic research paradigm. This refers to research where one observes and measures a specific study from an objective point of view (Bruwer, 2012). This research paradigm was found suitable for this study because it was mostly quantitative in nature, and the positivist research paradigm lends itself to recording some facts in terms of quantity or number that can be handled by utilising statistical techniques (Cilliers, Davis & Bezuidenhout, 2014:27).

1.5.2 Population and sample size

The target population included owners, managers and accountants of the manufacturing SMEs situated in Cape Town, more precisely in the areas of Kensington, Maitland, Bellville, Cape-Town. It was challenging if not impossible to test the complete population, due to the

absence of a complete list of manufacturing SMEs in Cape Town. Hence, a non-probability purposive sampling method was employed to select the research sample and not every unit had a chance to be selected. This method helped the researcher to identify the participants that were willing to take part in the survey. Given that the usage of alternative sample methods, such as random sampling, was not suitable thus, the researcher selected a sample size of 100, which was in line with the studies by Matsoso (2014) and Maduekwe (2015) who used a similar sample size.

1.5.3 Sampling method

As stated above, this study employed a non-probability purposive sampling method. This method was suitable for this research because it involves the identification and selection of people or groups of people who were well-informed about the use of MATs, such as the BSC and budgets, in their organisation.

1.5.4 The data collection instrument

The data collection instrument that was used in this research was a structured questionnaire. This survey instrument was appropriate for this research because the administration is inexpensive and easy when gathering data from a large number of respondents (Lawal, 2013). The questionnaire was compiled and designed through four different statements of objectives, as well as four sub-questions and one research question. The questionnaire was divided into four sections, which comprised 12 closed-ended questions. A letter of permission was attached which explained the objectives of the research as well as the importance of conducting the survey in the manufacturing SMEs located in Cape Town.

1.5.5 Data collection method

This study was carried out by collecting data from primary sources; by means of a self-administered questionnaire. The researcher gathered data from owners, managers and accountants by conducting door-to-door surveys within manufacturing SMEs in Cape Town. Some copies of questionnaires were dropped off and collected the same day from business owners, managers or accountants who were available and willing to immediately respond. Others were collected the following day or later depending on the participants.

1.5.6 Data analysis

This study utilised a quantitative method and the data gathered was captured and analysed using the Statistical Package for Social Sciences (SPSS) software (version 25) in order to check the validity and reliability of the input data. The software helped the researcher to generate a general and descriptive overview on 82 collected questionnaires that were presented in the form of graphs and frequency tables.

1.6 Significance of the Study

The findings of this research will firstly be of importance to decision-makers in the manufacturing SMEs in Cape Town, considering that SMEs continue to be key drivers of employment creation and economic development. It will enhance their knowledge on the use of MATs for improving their business performance, and inform them about the MATs, such as the BSC and budgets, that can enhance the sustainability of their companies. The results of this study are also significant to researchers who may replicate this study in other sectors. The result will also help future researchers, serving as a reference point for them.

The South African government could also draw on the results of this study, particularly the Department of Small Business Development. The findings of this study will enable them to develop more effective interventions related to training of SMEs‟ decision-makers on suitable MATs, hence averting the high underperformance rate of SMEs.

1.7 Delineation of the Study

All selected manufacturing SMEs were situated in Cape Town and have been in existence for at least one year. In order for the response to be regarded as valid, only managers, owners and accountants of the manufacturing SMEs participated in the survey. These were respondents with correct information regarding the use of MATs, such as the BSC and budgets, in their organisation and have been actively involved in the business operation.

1.8 Limitations of the Study

This study was limited to companies located in Cape Town within selected manufacturing SMEs and the results may not be generalised to all the manufacturing SMEs in South Africa. The researcher faced some limitation while distributing the questionnaires to owners, managers and accountants due to their busy schedule. It was difficult to get most of the participants to answer the questionnaires. In order to overcome this and get a high response rate the researcher paid several visits to such participants to convince them to participate in the survey.

1.9 Ethical Consideration

Consent was obtained from participants before conducting the research on respective SMEs. The data was only collected once the researcher received ethical clearance from Cape Peninsula University of Technology‟s (CPUT) ethics committee.

Only volunteers in full possession of the facts about the research project were used to answer the questionnaires. They were assured that they were free to withdraw from the

research process at any time, and informed that the information they had provided in response to the questions would be used for academic purposes and that their personal details will not be revealed. They were also given the choice to remain anonymous.

1.10 Contribution to the Study

This study investigates the extent to which manufacturing SMEs in Cape Town use MATs, such as the BSC and budgets, to improve their business performance. Hence, the study contributes to the existing body of knowledge on the use of MATs on the business performance of manufacturing SMEs by providing the importance of using MATs in the SMEs.

1.11 Definitions of Terms and Key Concepts

Key terms used in this study are defined as follows:

Table 1.2: Definitions of terms and concepts

Terms	Definitions
Small and medium enterprises	These are entities that are broadly defined as businesses with minimum requirements to set up, and have less legality if any (Matsoso, 2014:19).
Manufacturing firms	These are entities engaged in the production of commodities and or services that are aimed at meeting customers" demands (Mastoso & Benedict, 2015).
Management accounting	It is a process of identifying measuring, analysing, interpreting and communicating information in pursuit of organisation goals (Hilton & Platt, 2011).
Management accounting tools	MATs are a technique that improves performance, facilitates decision-making, support strategic goals and objectives (CIMA, 2013).
Performance	Performance is the process of quantifying the efficiency and efficacy of operations (Soltani, Nayebzadeh & Moeinaddin, 2014).
Business performance	This is a general method that helps the organisations to gain more comprehensive vision about their performance by the integration of the financial and non- financial scales (Al-Majali, 2018).

BSC tool	The BSC is a strategy measurable goal that transfers performance measurement systems from short term to long term (Ramezani & Beiglou, 2014),
Budgeting tool	It is a plan or document that predicts revenues and expenditure of a specific entity for a stated period (Abdullahi et al. 2015).

1.12 Outline of the Thesis

This thesis consists of five chapters. Chapter One presented the background of the study, the statement of the problem, the aim, sub-objective and sub-question of the study. This chapter also summarised the overview of the methodology used in this study. This was followed by the significance of the study, the delineation of the study, the limitation of the study, the ethical considerations and the contribution of the study. After this introductory chapter, the remaining chapters are as follows:

Chapter Two – Literature Review:

This chapter presents the theoretical framework, defines and discusses the manufacturing SMEs, MATs (budget and the BSC tool) and addresses the issue of whether or not decision-makers employ MATs in the SMEs.

Chapter Three – Research Design and Methodology:

This chapter discusses in detail the research method, research design, population, and the sampling method and data collection methods used in the study.

Chapter Four – Data Analysis and Discussion of Findings:

This chapter analyses, discuss and interpret the results that obtain from the population sample.

Chapter Five – Conclusion and Recommendations:

This chapter articulates the conclusion reached by the study and makes recommendations, both for the manufacturing SMEs and for further research.

1.13 Summary of the Chapter

This chapter presented the background of the study, the statement of the problem, the aim, sub-objective and sub-question of the study. This chapter also summarised the overview of the methodology used in this study. This was followed by the significance of the study, the delineation of the study, the limitation of the study, the ethical considerations and the contribution of the study and, lastly the outline of the thesis was presented.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter examines the theoretical framework, with relevant theory that is used to locate this study. It provides the definition of the manufacturing small and medium enterprise, and discusses their importance to the South African economy as well as the issues that face these entities and assert awareness on how they can avoid underperformance. The chapter also defines and discusses MATs, the strategic management tool (SMT), such as the BSC and budgets. It also addresses the issue of whether or not decision-makers employ MATs, particularly the BSC and budgets in the SMEs. Lastly, the chapter outline the gaps identifies in prior literature and research question that have remained unanswered.

2.2 Theoretical Framework

A theoretical framework refers to the theory that the researcher chooses to guide him/her in his/her research study (Imenda, 2014). It consists of a selected theory or theories that undergird the researcher‟s thinking with regards to how he/she understands and plans to research a topic as well as the concepts and definitions from that theory that are relevant to the topic (Grant & Osanloo, 2014). According to Cilliers et al. (2014), a theory is the grounding in which a research is rooted. Prior studies in management accounting have a long tradition with diversity of theories being adopted (Scapens & Bromwich, 2010; Maziriri & Mapuranga, 2017). In order to locate this study, this research adopts a contingency theory given that most studies into the adoption or use of MATs were grounded on the contingency theory.

Contingency theory of management accounting

According to Otley (1980), the application of the contingency approach to management accounting is based on the statement that there is no universal appropriate accounting system, which applies equally to all enterprises in all circumstances. It is recommended that particular features of an appropriate accounting system will depend on the specific circumstances in which an entity finds itself. The contingency theory is defined as any variable that moderates the effect of organisational characteristics on the business performance (Donaldson, 2001:7; Maziriri & Mapuranga, 2017).

The theory was coined by Burns and Stalker (1961), thereafter, developed by Woodward (1965). Reid and Smith (2000), Haldma and Laats (2002) and Badara (2017) postulated that that there is no perfect way to provide a good management accounting system (MAS) but rather depend upon some contingencies to dictate the best option of MAS in each particular condition. According to Gichaaga (2014), the contingency theory looks at some influential factors that will help management to choose appropriate MATs. Gichaaga (2014) added that these factors can be either technological changes or infrastructure of an enterprise. For instance, a manufacturing food enterprise may want to change the technology using a more modern hygienic and efficient method of handling, processing and packing food. It may then consider installing a computer-based system that must make its products; nevertheless, the type of qualified personnel required to operate such complex equipment will influence the type of MATs selected and production cost (Alleyne & Marshall, 2011).

The contingency theory has been identified as an important area of research in management accounting (Abba, Yahava & Suleiman, 2018). One of the earlier studies in management accounting research adopting a contingency perspective was Hofstede (1967). Hofstede (1967) found that economic, technological and sociological considerations had a significant impact on the budgeting systems. Dugdale (1994), who also used the contingency theory in his study, found that budgets play a critical role in business management as they continually inform and remind managers of planned revenue and expenditures and associated cash inflows and outflows. A study by Speckbacher, Bischof and Pfeiffer (2003) on the implementation of the BSC in Germany used a contingency theory to analyse the spread implementation and benefits of the different types of BSC. The study found that only a few firms (26%) used the BSC. Speckbacher et al. (2013) findings also reveal that companies using the BSC view it as a concept for improved shareholder value management, that they do not view it as tool for integrating stakeholders and their intangible investment into the existing management process in a better way.

The above review summarised the usage of contingency theory of management accounting research. Hence this theory will assist manufacturing SMEs decision makers to decide on appropriate MATs for their organisation. The next section defines and discusses the manufacturing SMEs.

2.3 Definition, Classification and Role of Manufacturing SMEs in South Africa

This section proceeds with the definition of SMEs as well as the classification of SMEs. This is followed by a discussion of their importance to the South African economy**.**

2.3.1 Definition and classification of SMEs

According to Obokoh (2009:44), there is no accepted definition of SMEs because the term covers a wide range of definitions and measures varying from country to country. For instance, in Kenya, Musando (2013) asserts that SMEs are defined as business organisations having a minimum of 10 and a maximum of 150 employees. In Botswana, Mutoko and Kapunda (2017) reported that SMEs are defined as companies having six or less employees (micro business), small business as ones with less than 25 employees, while the medium-sized enterprises as one having between 25 and 100 employees.

The official definition of SMEs in South Africa defined by the National Small Business Act 1996 amended by the national small business amendment acts (NSBA, 2019) is that an SME is "*a separate and distinct business entity, together with a branches or more predominantly carried on in any sector or subsector of the economy of the schedule and which can be classified as a micro, a small or medium enterprise".* Given that this study is conducted in the manufacturing SMEs, hence the manufacturing SMEs are defined and classified as:

- Medium enterprise as industry with a labour size with 51 to 250 workers or total annual turnover of less than or equal to 210 million.
- Small enterprise as industry with labour size with 11 to 50 employees or total annual turnover of less than or equal to 50 million.
- Micro enterprises as industry with labour size of not more than 10 employees or total annual turnover not more than or equal to 10 million.

As can be seen in the above, enterprises with between11 and 250 workers can be classified as manufacturing SMEs. This definition would be the basis of classifying enterprises as manufacturing SMEs for the purpose of this study. It is important to note that definitions change over time due to changes in price levels, advancements in technology or other considerations that may become necessary for the purpose of defining SMEs (Obokoh, 2009:45). The current study only focuses on SMEs because these entities are expected to have attained a size and sophistication that requires usage of MATs. Besides, unlike micro enterprises which typically lack adequate resources required to implement MATs, SMEs are expected to have the requisite resources to implement these tools (Armitage & Webb, 2013:13); Maduekwe, 2015).

2.3.2 Role of manufacturing SMEs in South Africa

In South Africa, the manufacturing SMEs are known for creating much-needed jobs, especially for unskilled and semi-skilled labour compared to other sectors (Dubihlela &

Nqala, 2017). Sunjka and Sklar-Chik (2012) revealed that these entities contribute 46% towards the total employment and 18% towards the manufacturing sector‟s income. The manufacturing SMEs are one of the largest contributors to the country‟s gross domestic product (GDP) and has the biggest potential to reduce the unemployment rate and enhance national economic growth (Abor & Quartey, 2010; Olawale & Grawe, 2010; Sifumba, Mothibi, Ezeonwuka, Qeke & Matsoso, 2017).

Albeit that in recent times there has been a decrease in employment in the manufacturing sector from 1.44 million in 2005 to 1.19 in 2014 (Lehohla, 2016), their contribution also decreased from 19% in 1993 to 17% in 2012 (Statistics South Africa, 2015). The manufacturing activities are often seen as the foundation of the economy and key driver of growth and development (Urban & Naibo, 2012; Sifumba et al., 2017), which is a result of less paperwork in the formation of business, unlike their counterparts, the large organisations, that require numerous legalities and complexities.

Additionally, the Department of Trade and Industry (DTI) (2012) reported that SMEs provide personalised services and also make a positive contribution to wealth creation in the South African economy. They serve as incubators for entrepreneurial talent and a testing ground for new products (Ramukimba, 2014). This point is expanded upon by Jackson (2004:6) who added that SMEs provided a variety of goods and services for customers to choose from, some of which might not be provided by large businesses.

Olosala and Oluwaseun (2014) pointed out that even though SMEs play an increasingly important role in providing new products and employment opportunity, they encounter many difficulties. This statement was supported by Urban and Naibo (2012), who affirm that these entities may act as facilitators of activities for the entire economy, but a lot of them underperform or fail.

For a business to succeed, every business owner or manager needs to make sure that their business operates as efficiently as possible. Improving the efficiency and effectiveness of the business requires an understanding of key factors within the organisation and a hands-on approach to implementing processes that will optimise these key factors (Barned, 2011). One of the main factors that may help improve the manufacturing SMEs is MATs. The next section discusses them.

2.4 Management Accounting Tools (MATs)

MATs are instruments that enable management accountants to improve performance, facilitate decision-making, and support strategic goals and objectives (CIMA, 2013:3). Shiled and Shelleman (2016) argue that MATs can assist SMEs to improve their performance, such

as the ability to deal with increasing complexity both internal and externally as the business grows, and to deal with a variety of problems and opportunities. The strategic management tool, such as the BSC and budgets, are modern tools that can provide organisations with the above-mentioned information.

2.4.1 Balanced scorecard (BSC)

According to Giannopoulos et al. (2013) the BSC is a performance measurement and strategic management system or tool which can be used by all types and sizes of businesses. This study views the BSC as a strategic management tool, given that the use of the BSC in the development of strategic initiatives helps managers to focus on issues that promote growth, (Kaplan, 1996b; Quesado, Guzman & Rodriges, 2018). Iranzadheh, Nojehdeh and Emami (2017) describe the BSC as a tool that assists organisations to transmit their strategies in the form of a set of operational goals to various parts of organisation. Thus, it transforms performance behaviour of the whole organisation.

The tool was developed by Kaplan and Norton (1992) to improve organisational performance in certain areas, including products, processes, customers and market development (Matsoso, 2014). In addition, Kaplan and Norton (1992) introduced the BSC as a reflection of the inadequacy of traditional management systems and their dependence on financial measures, which are lag indicators, that report on outcomes from the past (Salem, Hasmen & Osman, 2012).

The BSC provides strategy, with a deep insight into the overall organisation and assists managers to make informed decision about long and short term objectives, internal and external performance, financial and operational performance (Iyibildiren & Karasioglu, 2018).

When fully implemented it aligns everyone within an organisation so that all workers can understand how and what they can do to support strategy. It can also be used as a basis for compensation and provides feedback to management as to whether the strategy is working (Nopadol, 2011). CIMA (2013) points out that the BSC consists of four perspectives: financial, customer, internal, learning and growth perspectives. These four perspectives are linked to the company strategy and create a holistic model of its strategy that allows all workers to see how they can contribute to the success of the company (Nopadol, 2011). The four perspectives are illustrated in Figure 2.1 (next page).

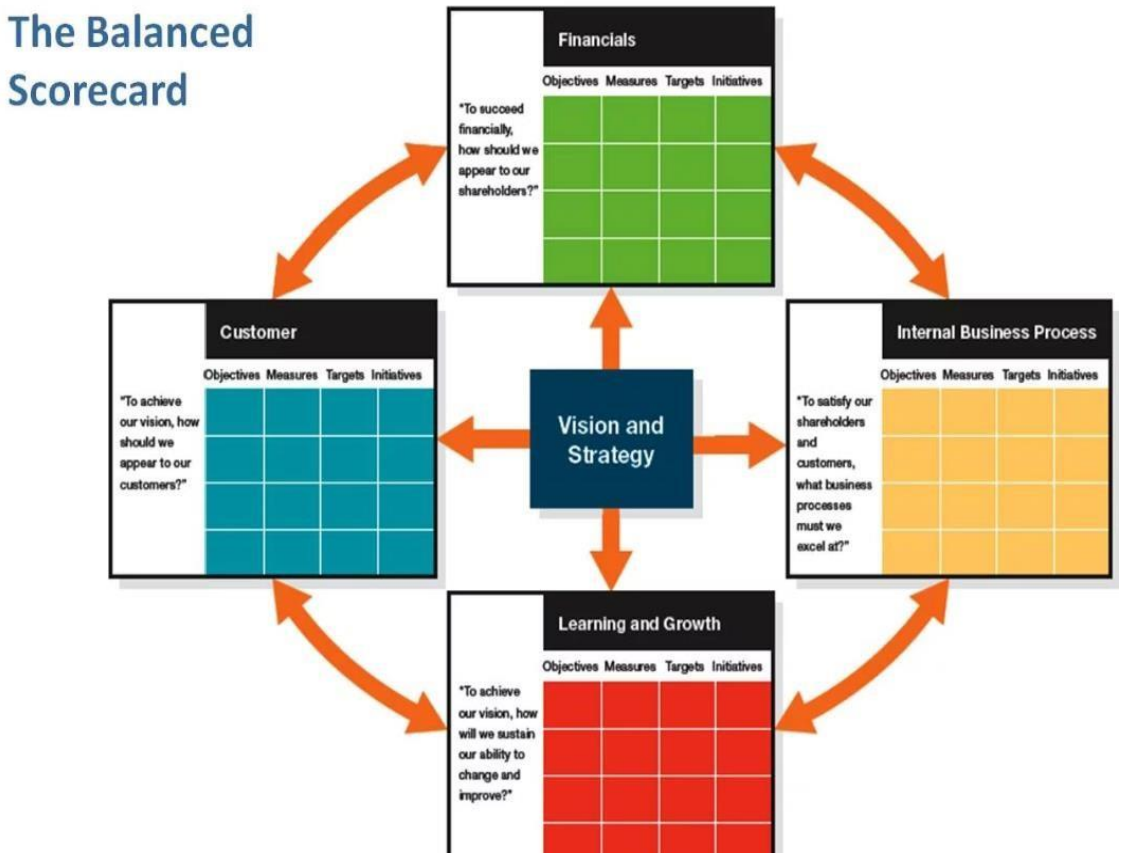

Figure 2.1: The balanced scorecard

(Source: Adapted from Kaplan & Norton, 1992)

As can be seen in Figure 2.1, the intention of the BSC is to translate the vision and strategy of a business unit into objectives and measures using four perspectives. As already stated, the perspectives of the BSC consist of the financial, customer, internal, and learning and growth measures, which are explained below.

2.4.1.1 Financial perspective

The financial perspective is considered the most important perspective among them all, mostly in relation to key strategy implementation and assessment of organisation performance (Al-Hosaini & Sofian, 2015). The financial perspective consists of a traditional set of measures, such as sales growth, cash flow, operating income, net profit margin, and

return on investment (Berkova, Adamova & Nyuvtova, 2017), that organisations use to measure and report their financial performance (Doran, Haddad & Chow, 2008). Their emphasis is on the past rather than future-oriented measures. According to Chimtengo, Kandawire, and Hanif (2017), this perspective gives results of all the other three perspectives, and without the financial perspective, the other perspectives can fail to take place, given the fact that this perspective is about financing the others. Nevertheless, using the financial measure as a performance management tool and the elimination of the other three perspectives have been criticised by several researchers (Love & Holt, 2000; Kaplan, 2012; Mastoso & Benedict, 2014; Maduekwe & Kamala, 2016).

Love and Holt (2000) pointed out that over-reliance on the financial perspective is regressive and out of date. In addition, it does not present a complete picture of business performance, and does not ensure accuracy, neutrality and relevance of these measures in the business environment (Kaplan, 2012; Maduekwe & Kamala, 2016).

However, Asa et al. (2013) argue that financial perspectives are still important because there is no guarantee that improved operating performance will lead to financial success. For instance, the financial measure, such as profitability of a company, is important to its success, thus cannot be dismissed. Iranzadeh, Nojehdeh and Eman (2017) assert that the financial measures tell organisations the type of results and achievement gained by the successful implementation of the objectives of other perspectives. They added that organisation can do their best to improve the other perspectives; however, if they do not result in tangible outcomes in the financial reports, they will not be of significant value.

2.4.1.2 Customer perspective

The customer perspective captures the ability of the organisation to secure qualitative goods and services, the effectiveness of their delivery and satisfaction (Kairu et al., 2013; Sahiti, Ahmeti, Sahiti & Aliu, 2016). In addition, it can describe how the firm wants to differentiate itself from competitors to attract, retain, and deepen relationships with target customers (Al Zwyalif, 2017). The customer perspective comprises a set of measures, such as the customer satisfaction and customer complaint and is described below.

Customer satisfaction measures

Khadka and Maharjan (2017:7) defined this measure as an overall evaluation based on the total purchase and consumption experience with goods or services over time. The customer satisfaction is the top priority for long-term business success (Suchanek, Richter & Kralova, 2017); if customers are dissatisfied, they will find other suppliers who meet their needs (Alshammari, 2012). Organisations that meet customer needs, creating value for customers, are more likely to produce desired financial results (Eldenburg et al., 2011:701). In other words, if organisations want to create a viable business structure in addition to good financial

performance, they need to produce products and services that customers value (Iyibildiren & Karasioglu, 2018). Tung (2013) asserts that the customer satisfaction has three elements, which are the perceived quality, perceived value, and perceived expectations.

The perceived quality is commonly referred to as consumers‟ judgment about the company‟s services or products, comprising overall excellence or superiority (Souki & Filho, 2008; Marakanon & Panjakajornsak, 2017), while the perceived value is an overall assessment of the utility of a product based on perception of what is received and what is given (Faryabi, Kaviani & Yasrebdoost, 2012). The perceived expectations are the consequences of previous experience with the company‟s product or service (Hashed Ahmed Nasser, Salniza & Hamid, 2012).

Therefore, from the above, it is common to believe that learning about customer satisfaction by creating a customer satisfaction survey among the target customers could help the organisation to prevent unfavourable service experience.

Customer complaints

The customer complaints may be referred to as a customer's expression of dissatisfaction towards a product or service (Mensah, 2016). Information from customer complaints is of great importance for the business or quality improvement, as it can be used to correct and learn about weaknesses in product quality, service and delivery system (Filip, 2013). The lack of complaints is thus, not a true indication of effective management. Companies need to encourage their clients to complain and provide them with the necessary means to do so (Shahin, 2015). Learning about the customers‟ complains will help companies to serve them correctly and prevent an unfavourable service experience.

2.4.1.3 Internal business perspective

According to Al-Zwyalif (2017), the internal perspective identifies the customer management, innovation, regulatory and social process in which the company must excel to achieve its customer, revenue growth, and profitability objectives. Similarly, Asa et al. (2013) assert that the aim of this perspective is to identify the key business process that create and deliver the company‟s products and services to customer, while developing measures to ensure the smooth operation of these processes. They further assert that by focusing on the key activities and processes required this reinforces the company's efforts to deliver the value expected by the clients, so that the actions taken from the customer‟s point of view will be supported. Basic measures of this perspective include on-time deliveries, product quality and manufacturing lead-time. These measures are described below.

On-time deliveries

In the very competitive market of today, where technological innovation and its growth are very significant, on-time delivery is a very important aspect, among many others, for the success of a product (Kamin, Samaranayake, Smith & Halgamuge, 2010). According to Ranjan, Mahesh and Sandesh (2014), on-time delivery is a measure of process and supply chain efficiency which measure the amount of finished goods or services delivered to customers on time and in full. They added that it helps to determine how efficiently companies are meeting their customer‟s needs or agreed deadlines. Furthermore, on-time delivery reflects whether perfect delivery has taken place or otherwise (Gunasekaran, Patel & McGaughey, 2004).

Product quality

This is the key issue for the clients – they believe in buying a product that will last long (Lekhanya & Dlamini, 2017). According to Jakpar, Goh Sze Na, Johari and Myint (2012), product quality set at a high level, increases customer retention, the financial performance as well as profitability. In the manufacturing approach, product quality originates from operation and production management; therefore, it is called a conformance to specifications (Jakpar et al., 2012). Matsoso (2014) asserts that a product that conforms to specifications should satisfy the customer‟s demand. The quality of the product must always exceed the expectations of the customer, because the standard of a company is determined by the customer who has experimented with the product and who used this experience and feelings to form an opinion against companies (Abdullah & Rozario, 2009).

Manufacturing lead-time

This is the amount of time required to convert a product from raw materials to a finished goods (Metzinger & Latif, 2003). It should enable organisations to reduce the cost of their product by reducing cycle times and eliminating non-value-added activities, and helps organisations gain a competitive advantage (Wejwitwarakul & Chompu-inwai, 2016).

2.4.1.4 Learning and growth perspective

The learning and growth perspective includes identification of the infrastructure that the business needs to develop in order to create long-term and sustainable growth and improvement (Sahiti et al., 2016). In addition, it has as objective to evaluate what is the value of the employment for the enterprise in three levels of contribution: as an individual, as a member of the team or somebody integrated to the organisational culture (Scaramussa, Reisdorfer & Ribeiro, 2010). Furthermore, it identifies which jobs (human capital), which systems (the information capital) and what kind of climate (the organisation capital) are required to support the value creating internal processes (Kaplan, 2005; Berkova, Adamova & Nyvltova, 2017). Measures of this perspective are as follows.

Employees‟ productivity

One of the factors that contribute to indicators of the success of the organisation or the well-being of the business is employees‟ productivity (Beaton et al., 2009). It is an assessment of the efficiency of a worker or group of workers (Massoudi & Hamdi, 2017) that involves measuring the time spent in the production of the desired outputs from employees as well as the measurement of the employees‟ related costs incurred by the organisation in the production of desired output (Buuri,2015:2).

Employees‟ turnover rate

It can be defined as a percentage figure that shows the rate at which employees move in and out of the organisation (Nugent, 2009; Ampomah & Cudjor, 2015). Generally, the employee turnover rate is grouped into two kinds, that is, voluntary and involuntary (Zhang, 2016). Voluntary employee turnover rate occurs when an employee willingly leaves the organisation, while the involuntary employee turnover rate, on the other hand, occurs when the employer terminates the employment contract (Rijamampinina, 2015). It is very important for employers to monitor the volume of employees who leave the organisation (Urbancova & Linharrtova, 2011) in order to meliorate the factors causing the turnover. If an entity determines the most common causes of the employee turnover, it would certainly be able to take the necessary steps for recruiting and retaining well-qualified personnel (Armstrong, 2006).

Job satisfaction survey

Job satisfaction gives an image to the company about how their employees perceive their work (Pratiwiand & Well, 2014). The measurement of employee satisfaction varies from organisation to organisation (Mafini & Pooe, 2013). Some companies use anonymous employee satisfaction surveys which are administered periodically to measure the levels of employee satisfaction (Deshpande, Arekar, Sharma & Somaiya, 2012; Mafini & Pooe, 2013) while in order organisations meetings are held between management and small groups of employees, where the latter are asked questions pertaining to their satisfaction (Ybema, Smulders & Bongers, 2010). Pepea, Addimando and Veronesea (2017) suggest that the best way to evaluate job satisfaction is to ask workers to rate one item on a 5-point scale, namely „How satisfied are you with your job?"" Evaluating job satisfaction is one of the most significant areas the organisation should focus on. When the satisfaction level of employees increases, then this will result in more returns to organisations (Javed, Balouch & Hassan, 2014). Javed, Balouch & Hassan (2014) added that the dissatisfaction of the employees has adverse effects on efficiency and effectiveness of the organisation.

2.4.1.5 BSC summary

The four perspectives of the BSC provide relevant feedback as to how well the company strategy plan is executed so that adjustment can be made as necessary (Snapka & Copikova, 2011). Snapka and Copikova (2011) added that within each perspective of the BSC, an entity must define the following:

- **Strategy objectives:** how strategy should be achieved in the particular perspective?
- **Measures:** How the progress of that perspective will be measured?
- **Targets:** The target value for each measure.
- **Strategic actions:** What will be done in order to reach the target?

Hence, by evaluating the four performance metrics, the BSC can assist companies in tracking all the important aspects of a company strategy as well as achieve constant improvement of partnership and teamwork (Awadallah & Allam, 2015). Hoque (2014) points out that among SMEs, the main use of the BSC is improving their chances of survival. For instance, the BSC could assist SMEs in measuring and addressing internal failure factors and internal processes, learning and growth perspectives and external factors, by aligning them to customer and financial perspectives and linking them to internal business processes (Awadallah & Allam, 2015).

The BSC makes it possible to evaluate capability, creates value for present and future customers, which are necessary to ensure long-term prospective growth of SMEs (Snapka & Copikova, 2011). Kaplan and Norton (2007) assert that without the BSC, most organisations are not able to achieve a similar coherence in vision and action when trying to change direction and introduce new strategies and new processes. Consequently, much attention is required to ensure that the manufacturing SMEs are well developed and that the BSC is in place.

2.4.2 Budgeting tools

A budget is a plan or document which predicts revenues and expenditure of a specific entity for a stated period (Abdullahi *et al.*, 2015). It provides information orientated towards the future that will control the performance of the company by underlining the areas in which the actual performance deviates from budgeted performance, so that a proper corrective action can be done (Anohene, 2011; Maduekwe & Kamala, 2016; Ocran et al., 2017).

Budgets also serve as financial planning. This is because in order for any company to make progress or achieve its goals, it needs capital, and to be able to make profit, it requires planning of its resources, which is done through budgeting (Siyanbola, 2013). This plan helps

the organisation to coordinate the activities needed to carry out the plan (Eldenburg et al., 2011:508). If applied as prescribed, the business entity can create and sustain superior performance (Ojua, 2016). In addition, budgets enable organisations‟ plans to be communicated to different units or departments within itself by creating directories of divisions, departments and sections, as well as responsibilities correctly defined (Edmund, Kwaning & Donko, 2015). Edmund et al. (2015) added that budget helps to allocate resources, perform coordination operation and provide a way to measure performance. Furthermore, budget facilities effective utilisation available fund, improve decision-making (Kamau, Rotich, & Anyango, 2017), and motivates employees to achieve certain goals and strive for the best (Cardos, 2014).

From the aforementioned, it emerges that budgets serve a variety of purposes and if properly used, the budget can provide a benchmark or comparison that will alert management to the first indication that their financial goal will not be met (Okaye & Odum, 2003). Okaye and Odum (2003) further state that in order for the budget to provide this kind of information and control, the following elements must be present:

- The budget must be well-conceived, and have been prepared or approved by management.
- The budget must be broken down into periods corresponding to the periodic financial statement.
- Financial statements must be prepared on a timely basis throughout the year and comparison made to the budget, right on the statement.
- Management must be prepared to take action where the comparison with the budget indicates a significant deviation.

There are different categories of budgets, which organisations can prepare depending on their purpose (CIMA, 2014:475). The next section describes the types of budgets selected for this study. According to Eldenburg et al. (2011:442) the type of budget used in an organisation depends on the nature of the organisation goods‟ or service and it accounting system. Given that this study is conducted in the manufacturing SMEs, the following budgets were selected.

2.4.2.1 Sales budget

The sales budget is the phase of accounting that deals with preparation of a plan forecast for the future sale of the company, and values of the sales (Ackaha, Gyamfi & Agboyi, 2014). It shows the expected number of sales units of a period and the expected price per unit as well as the total sale, which are simply the product of expected sales units and expected price per

unit (Saeed, Qi & Jalloh, 2016). Sales budgets should be given special attention as they have a major impact on other budgets (Zweni, 2017:49).

According to Zweni (2017:51), the lack of sales budgets in an organisation can cause the following difficulties:

- Inability to access the global performance of an organisation.
- Inability for an organisation to limit or reduce expenditure for products or other departments.
- Inability for an organisation to react swiftly to changing market conditions.
- Can influence management of an organisation to limit or reduce expenditure for products or other departments.
- Can cause impossibility of sale models and limit the identification of deviating in terms of sales targets.

2.4.2.2 Production budget

Kitere and Sungwasha (2017) emphasised that production budget is prepared after the sales budget. They added that the production budget lists the number of units that must be produced during each budget period to meet sales needs and provide for the desired ending inventory. Essentially, the production budget is the sales budget adjusted for inventory changes. Polimeni, Fabozzi and Adelberg (1991:380) opined that before much work is done on the production budget, it must be determined that the factory can produce the quantities estimated in the sales budget. Production can be calculated as the number of units sold, plus the desired ending finished goods inventory, minus the beginning finished good inventory (Drury, 2011). In planning production, an entity must give careful consideration to the productive capacity, availability of raw material and similar considerations (Walther & Skousen, 2009:20).

2.4.2.3 Direct material purchase budget

This budget specifies purchasing terms and the amount of raw materials, materials, and semi-products that need to be purchased to fulfil production assignments (Klychova, Faskhutdinova & Sadrieva, 2014). The amount of materials required to achieve planned production figures can be calculated as the material required for planned output minus materials in stock at the beginning of the period multiplying quantity of material units by purchase price to get materials‟ purchasing budget.

2.4.2.4 Direct labour budget

The direct labour budget determines the expected direct labour requirements by products that the company intends to produce (Johan, 2013). In addition, the direct labour budget is useful in predicting the number of employees that will be required to staff the manufacturing sector throughout the budget period (Bragg, 2017). He goes on to say that this allows management to anticipate hiring requirements, as well as the timing of scheduling overtime and probabilities of termination.

2.4.2.5 Factory overheads budget

According to Zimmerman (2014), the factory overhead budget is a cost not directly identifiable or traceable to specific products. These consist of costs of indirect materials, indirect labour, and expenses, such as taxes, insurance, depreciation, supplies, and repairs. Shaku (2011) is of the opinion that without a factory overhead budget, the manufacturing SMEs may fail to recognises the role of indirect manufacturing costs during the production process. Hence, this could result in SMEs under-costing and under-pricing their products (Hansen & Mowen, 2016), and may eventually lead to the underperformance of the organisation. The factory overhead budget can help SMEs to maintain a sustainable profit margin by costing products correctly and pricing them competitively, bearing in mind the total manufacturing cost (Groover, 2010; Agyei- Mensah, 2011).

2.4.2.6 Cash budget

Isaac, Lawal and Okoli (2015) emphasise that a cash budget is the estimation of cash receipts and payments for future plans after due consideration has been given to expected conditions and the overall budget plan. It helps decision makers to examine the inflow and outflow of cash in a business on a day-to-day basis. In addition, a cash budget helps an entity to determine when income is sufficient to cover expenses and when the organisation will need to seek external financing (Onduso, 2013:3). Moreover, cash budgets place business owners or managers in the position of thinking about their respective businesses‟ financial position and performance, and provide them with power to control and monitor the cash flow of their businesses (Gartenstein, 2014; Bruwer et al., 2015).

2.4.2.7 Budgeting tools summary

In conclusion, SMEs‟ decision makers need to budget their resources, which may comprise everything from raw materials to human resources to facilities and to make the best and most profitable use of what they have to work with (Segun & Olamide, 2011).

2.5 Prior Studies on the BSC

This section presents prior studies on the BSC related to the objectives of the study in order to eradicate duplication of what has been done and provide a clear understanding of the existing knowledge base on the problem.

Giannopoulos et al. (2013) conducted a questionnaire survey that examined the BSC usage and awareness by small enterprises in the UK and Cyprus. Out of the 20 responses received from UK small businesses. Giannopoulos et al. (2013) found that 80% of respondents did not know what the BSC was while the remaining 20% knew. The researcher also found that only 25% of the respondents with awareness of the BSC were using it.

On the other hand, out of 20 responses received from the Cyprus small companies, Giannopoulos et al. (2013) found that 55% of the respondents were not aware of the BSC while the remaining 45% were aware, and only 22% used it, while 57% said that they did not use it because they already used other performance measurement. From the total, 29% said it is inappropriate for use within small businesses, while 14% argued that there were no reasons to adopt the BSC because it is too time consuming to implement and use Giannopoulos et al. (2013). Although useful, studies were conducted in UK and Cyprus, which means their results may not be applicable to the businesses located in Cape Town.

Ismail (2007) in Egypt, investigated the performance evaluation measures and the obstacles that may limit the adoption of the BSC in 150 private sector companies. He found that most companies were shown the importance on financial and non-financial measures. The financial measure most used was the profit margin while the non-financial measure that was commonly used was customer satisfaction measure. Ismail (2007) further stated that the BSC was used by 60.5% of respondents while the remaining 39.5% did not. He added that factors that inhibited the non-adoption of the BSC were the inadequacy of implementing information systems.

A single study, conducted by Mahmoud (2014), investigated the adoption of the BSC in performance evaluation by 69 selected Bahrain manufacturing SMEs and large organisations. The study found that 49.3% of the sample size adopted the BSC while 50.7% of the sample size did not adopt the BSC, as those were exceptional SMEs. It was further revealed that the non-adopters were only relying on the financial measure in their performance evaluation. The study was conducted in Bahrain, thus their findings may not be applicable to the South African manufacturing SMEs. In addition, they did not investigate the purpose for which the BSC was used as well as the factors that prevent SMEs from adopting the BSC.

Monte and Fontenete (2012) investigated whether the BSC was used in monitoring the performance of 33 SMEs operating in the retail sector. The study found that most of those entities did not use the BSC as a tool to monitor the organisation"s strategy. The researchers also found that there were other factors, such as the lack of knowledge, and low level of education. In fact, 69.7% of respondents had no knowledge of the BSC, while 12.1% had an average knowledge of the BSC. Monte and Fontenete, (2012) studies was conducted in Portugal, thus their results may not be applicable to the South African manufacturing SMEs.

Alternatively, a study by Ahmad (2012) on the use of management accounting practices in Malaysia, comprising the use of performance evaluation systems, particularly the BSC, among 160 small and medium manufacturing enterprises which revealed an uptake of performance evaluation systems. The study revealed that 79% of the respondents used performance evaluation systems while the remaining 21% did not. The study further revealed that the financial measures, such as sales growth and operating income, were equally used by 78% of respondents. Other results were cash flow (76%), variance analysis (72%) and return on investment (71%). While the non-financial measures, such as on-time delivery, were used by 79% of respondents ,other results were the number of customer complaint (77%) ,customer satisfaction (76%), employee turnover and defect free delivery were equally used by 74% of respondents. Absentee rates (73%), the least used non-financial measure, were the number of warranty claims with 61% of respondents.

In Jordan, Al Sawalqa, Holloway and Alam (2011) employed a questionnaire survey to investigate the usage of BSC by 160 companies. They found that 35.1% of the survey companies used the BSC, 33.3% had not considered using the BSC, 17% were implementing the BSC, and 12% were considering it, while 1.8% that had first adopted the BSC had subsequently abandoned it.

Al Sawalqa et al (2011) further found a high uptake of the financial perspective by 100% of participants followed by the customer perspective (95%), while 88.1% of participants used that the internal perspective. They added that participants were mostly making use of the BSC in order to evaluate organisational performance (96.6%), to comply with legal requirement (89.8%) evaluate managerial performance (88.1%) and encourage improvement of the business processes (88.1%).

In Denmark, a survey of 53 respondents from medium and large manufacturing companies by Nielsen & Sorensen (2004) found that 82% had a high knowledge of the BSC and 18% had an average knowledge. However, the priority of the BSC was low. They added that this could be because almost half of the companies do not use the BSC. In fact, the degree of usage was 32%, which was distributed as 28% to companies with partial application, with 4%

of companies applying the BSC fully. Approximately 17% either considered or were not in the process of implementing it.

Elsewhere in India, Anand, Sahay and Saha (2005) found that 45.28% of respondents had adopted the BSC. The financial perspective was rated as the first perspective commonly used by respondents. The customer perspective was rated second followed by the shareholder perspective, internal perspective and learning and growth perspective.

2.6 Prior Studies on Budgeting Tools

This section presents prior studies on budgets related to the objectives of the study in order to eradicate duplication of what has been done and provide a clear understanding of the existing knowledge base on the problem.

A study conducted in the Cape metropole by Maduekwe and Kamala, (2016) employed a questionnaire survey to investigate the use of budgets by 100 SMEs. The study revealed that 79% of the respondents used budgets for the businesses‟ operation, while the remaining 21% did not. The study also revealed that the most commonly used budgets were sales, purchases and cash, which they use to monitor, measure their performance and for decision making. However, the majority of the respondents indicated that the lack of resources, such as computers and knowledge, inhibit them from adequately using budgets. It is relevant and was conducted in the Cape metropole particularly in the fast-moving consumer goods (FMCG). However, these findings were not related to the manufacturing firm. Thus, the finding was not applicable to the manufacturing firm.

Bruwer et al. (2015) examined the usage of cash budgets by 51 SMMEs. The researchers found that 50.98% of the respondents use cash budgets as a decision-making tool. Bruwer et al. (2015) further found that cash budgets were not effectively used by the respondents, mostly due to the lack of understanding, interpretation and usage of cash budgets. This study is useful, but due to the small size of the sample selected, the findings cannot be generalised. Furthermore, it was conducted in the Cape metropole, particularly in SMMEs operating in the retail sectors. Thus, the finding could not be applicable to the manufacturing firm. In addition, the study did not investigate the purpose for which budgets were used.

Bruwer et al. (2012) investigated the use of budgets by 40 retail clothing SMEs. The study revealed that the use of budgets with regards to decision making was as follows: 76% of respondents indicated that sales was the most used, while the production budget had a low adoption with 56% of respondents.

A study conducted in Ukrain by Shcherbina and Tamulevičienė (2016) employed a questionnaire survey to investigate how budgets were prepared and implemented by 384

SMMEs and large companies. The researcher reported that most of the entities compiled budgets. Out of the 384 respondents 90.98% prepared budgets while 9.02% said they do not prepare budgets in those those that were exceptionally micro enterprises. Tamuleviciene and Shcherbina (2016) also found that the main reason why micro enterprises were not using budgets was because of some factors, such as the lack of demand and their budgeting process were too expensive. Furthermore, the study revealed that among those that were using budgets, administrative expenses was the more popular budget as it was used by 95% of companies, followed by overhead budget used by 82.28%, direct labour budget 82.1%, sales budget 81.19%, production budget 76.92% and selling expense budget 69.65%. In addition, cost of goods manufacturing budget a low adoption as they were adopted by 31.53% of sample companies. Although insightful, Tamuleviciene‟s (2016) study was conducted in Ukraine and was based on SMMEs and large companies in various sectors; therefore, the applicability of the findings to the South African context is uncertain.

Ocran et al. (2015) conducted a survey on the use of MATs including budgets by 120 SMEs in Ghana. The study revealed that 85% of the respondents used budgets for their business operation, while the remaining 35% did not. The study further revealed that respondents purposively use budgets for measuring, monitoring their business performance, but the lack of top management, lack of adequate resources and MAT consciousness inhibit then from adequately using budgets.

A recent study done in KwaZulu-Natal by Mungal (2014) using a structured questionnaire revealed that 33.3% of respondents indicated that they did not have any knowledge of cash budgets. Mungal (2014) also found that 61.2% of the respondents indicated that they did not draw up cash budgets and only 29.9% of the respondents drew up cash budgets. Mungal (2014) concluded that the non-usage of cash budgets by respondents is because many of them do not have the skills or knowledge needed to draw the cash budgets.

In a similar study by Uwonda et al. (2013), that sampled 120 Ugandan SMEs, 41.8% of the sample SMEs did not prepare cash budgets, and 20.33% did not monitor their cash flow. Furthermore, 59% adhered to their cash budgets but 33% disregarded budgetary control. Uwonda et al. (2013) focused mostly on cash budgets. Therefore, did not investigate the usage of various types of budgets and their purposes. In addition, it was conducted in Uganda. Consequently, the findings may not be applicable to the South African context.

AL Smirat (2016) investigates the cash management practices of 270 SMEs in Jordan and their impact on the performance of these entities. He found that these entities faced a chronic shortage of cash, despite cash being crucial for their survival and growth. AL Smirat‟s (2016) study further revealed that only 28% of the sampled entities had the knowledge of how to prepare cash budgets while 72% did not. In addition, only 31% of the sampled SMEs tracked

cash payments while 69% did not. Furthermore, only 34% controlled their cash flows, while 66% did not.

AL Smirat"s (2016) study also revealed that only 35% of the sampled SMEs prepared cash budgets, while 65% did not. Those that did not prepare cash budgets indicated that they did not see the need for the budgets at the time of the study. The study only focused on cash budgets. Besides, the study was conducted in Jordan, thus the applicability of its findings to the manufacturing SMEs operating in South Africa is questionable.

2.7 Prior Studies on the Purpose for Which MATs (BSC and Budget Tools) are Used by SMEs

Giannopoulos et al. (2013) in their studies reported that SMEs in the UK were making use of the BSC in order to develop strategies and were satisfied with it as they considered it as a simple tool to help staff to understand strategy and vision of the organisation. In a similar study, Al Sawalqa et al. (2011) found that companies in Jordan were mostly making the use of the BSC in order to evaluate organisational performance, evaluate managerial performance and encourage improvement of the business process.

In India, Farrooq and Hussain (2011) investigated the role of the BSC and found that Indian organisations have incorporated dimensions of the BSC as a performance measurement tool and used it to create a change and improve performance.

With regard to budget, Ocran et al. (2015) conducted a study in Ghana on the use of MATs including budgets in SMEs and reported that SMEs purposively use budgets for measuring and monitoring their business performance.

Eton, Mwosi and Ogwel (2018) examined the role of cash budgeting in improving organisational performance of private business firms in Uganda. They found a strong correlation between cash budgets and organisational performance. They also found that cash budgeting stabilised profitability levels, and ensured that organisational expenditures are kept in line with planned cash flows, which also enhances the capacity to predict the likelihood of excess cash.

The above prior studies on the purpose of using MATs such as the BSC and budgets were conducted outside South Africa, thus the applicability of their findings to the manufacturing SMEs operating in South Africa is questionable.

2.8 Prior Studies on the Perception of the Effectiveness of MATs (BSC and Budget Tools) Used by SMEs

Although budgets are very important for most organisations, some managers are dissatisfied with their current system (Hansen, 2011). The study by Neely, Bourne and Adams (2003) found that budgets are too time consuming and costly to undertake performance. They said that the budget takes up to 20% of management time. Bartram (2006) agreed with this statement and found that even the most efficient organisations take 79 days to organise their budgets, while 210 days are spent in the worst organisations.

Neely et al. (2003) added that budgets limit responsiveness and flexibility, which often constitutes an obstacle to change; they are rarely strategic and often contradictory. Furthermore, budgets add little value and focus on reducing costs, not value creation. Neely et al. (2003) study was done in UK in 15 large companies; hence their findings are not applicable to the manufacturing SMEs located in South Africa.

The study by Libby and Lindsay (2007) found that from a total of 212 respondents 28% agree that budgeting is time consuming and costly, 64% said that budgets detect problems slowly while 51% disagree that budgets quickly become out to date. In addition, 76% disagree that the budget process lacks rigour and is based on unsupported assumptions, while 47% disagree that budgets cause adversarial relations rather than cooperative behaviour within organisations.

Libby and Lindsay (2007) concluded that even though budgets have some weaknesses, respondents indicated that they could not manage without budgets. To them, budgets are indispensable and they have chosen to improve their budgeting process and carry on. Libby and Lindsay"s (2007) study was conducted in America in large organisations only, therefore their finding are not generalised to the manufacturing SMEs located in South Africa.

Higgins (2005) also shared the view that many companies are highly dissatisfied with both the processes involved in and the results derived from their planning, budgeting, and forecasting efforts. Higgins (2005) found that 47% of respondents indicated that budgeting is mainly a number crunching exercise while 56% pointed out that the plan is not clearly linked to strategy. In addition, 63% of respondents pointed out that technology makes the process neither faster nor more effective and 40% indicated that their budget quickly becomes outdated.

Alternatively, Libby and Lindsay (2010) argue that the problem with budgeting is more to do with how it is used and some of the roles it is asked to play. They added that budgets have the potential to be extremely useful if used appropriately; 88% of respondents in Canada strongly agree with this statement.

In support to the above, Maduekwe (2015:84) found that the budget tools were effective; this was indicated by 59.84% of respondents. In addition, the study of Abogun and Fagbemi (2011) also revealed that budgets were effective for the purpose of planning and controlling.

Maduekwe‟s (2015:84) was conducted in the FMCG industry in Cape Town, while Abogun and Fagbeni‟s (2011) study was conducted in Nigeria, hence both studies may not be generalised to the manufacturing SMEs in Cape Town.

With regard to the BSC, Malina and Selto (2001) examine its effectiveness in communicating strategic objectives and serving as a management control device. They found evidence of an indirect relationship between the BSC management control function and improved performance on BSC measure. Furthermore, decision makers in their study perceived improved performance on the BSC would lead to improved efficiency and profitability.

Al-Khataneh and Al-Sa‟aydey (2010) in their studies reported that all firm managers of the Jordanian public shareholding and industrial companies appreciate highly the use of all BSC measures in strategic planning and performance evaluation.

The study by Chen, Yamauchi, Kato, Nishimura and Ito (2006) in China and Japan found that the first use of the BSC to compare hospital performance between China and Japan shows benefits that not only suggest performance improvements in individual hospitals but also reveals effective heath factors allowing implementation of valid national health policies.

The study by Anand et al. (2005) in India found that the usage of BSC has led to the identification of cost reduction opportunities in the respondents‟ companies, which have resulted in improvement in the bottom line.

In conclusion, one can only wonder why some firm have been successful if MATs are inherently flawed, thereby giving the researcher good reason to survey the literature for evidence from the field.

2.9 Gaps Identified in the Prior Studies on MATs

The following gaps were identified from the review of the previous studies.

- No study has established a strong causal link between the usage of MATs and improved business performance of the manufacturing SMEs located in Cape Town. Hence, there is a dearth of research on the use of MATs, particularly in manufacturing SMEs operating in Cape Town South Africa.
- Most prior studies were not conducted in South Africa.
- Most prior studies were conducted in other sectors than the manufacturing SMEs.
- Some studies only focused on one MAT and therefore, did not cover the two MATs examined in this study.

- Other studies had small sample size while others were dated and conducted in large companies.
- Some results of the past studies seem to contradict each other.

From the above, the researcher can conclude that the outcome of those prior studies may not be generalised to South Africa. Therefore, due to the dearth of research on the use of MATs (BSC and budgets) in the manufacturing SMEs in South Africa, this gave rise to this research study. Hence, the following research questions remain unanswered:

- Do manufacturing SMEs in Cape Town use MATs, such as the BSC and budgets?
- What types of the BSC measures and budgets are used by manufacturing SMEs in Cape Town?
- Are MATs, such as the BSC and budgets, used by manufacturing SMEs in Cape Town to improve their business performance?
- What are the perceptions of manufacturing SMEs in Cape Town on the effectiveness of the current MATs, such as BSC and budgets, used in their organisation?

2.9 Summary of the Chapter

This chapter defined and presented the theoretical framework, as well as the theory used to locate this study such as the contingency theory. The chapter also presented some studies that used the contingency theory on MATs and indicates that there are no universally appropriate MATs that can be adapted to all business in all circumstances. This chapter also provided an overview of manufacturing SMEs within South Africa; the issues that face these entities were also discussed in order to assert awareness on how they can avoid underperforming. This was followed by the review of literature on the significance of MATs in the manufacturing SMEs. Subsequently, the chapter discussed the importance of using MATs, such as the strategic management tools (the BSC and budgets) and indicated how those MATs can improve the business performance of the manufacturing SMEs.

The chapter also reviewed previous studies on the BSC and budgets, related to the four objectives of the study. Most studies in the literature review revealed a gap between the knowledge of the non-financial measures, such as the customer, internal, learning and growth perspective and their usage. It also revealed that SMEs were given more prominence to the financial measures. Others indicated a low usage of the BSC, while the majority revealed a high usage of budgets, mostly the traditional budget. Studies indicated that most respondents were making use of MATs (BSC and budgets) for measuring, monitoring, and

evaluating their business performance and decision making as well as to develop strategy. With regards to the effectiveness of MATs, it was revealed that some respondents were dissatisfied with their system but they could not managed without it, and have chosen to improve their system and carry on, while others indicated that MATs were very effective. Lastly, from prior studies some gaps were identified, which gave rise to this research study.

The next chapter presents the methodology adopted in this study.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides details of the methodology that was adopted in the study. The positivist research paradigm is discussed in section 3.2, followed by the research method in section 3.3, the research process in section 3.4, which covers the population and sample size of the study, the sample method, the data collection instruments, the data collection method and data analysis method adopted in the study. The ethical consideration follows in section 3.5 followed by the limitations of the study. Lastly, section 3.6 provides the summary.

3.2 Positivist Research Paradigm

This study fell within the positivistic research paradigm. This refers to research where one observes and measures a specific study from an objective point of view (Bruwer, 2012). This research paradigm was found suitable for this study for numerous reasons. To begin with, this study was mostly quantitative in nature, and the positivist research paradigm lends itself to recording some facts in terms of quantities or numbers that can be handled by utilising statistical techniques (Cilliers et al., 2014:27). In addition, this paradigm helps to understand the object through empirical tests and methods, such as sampling measurement, questionnaires, and group discussions. Hence, the information provided by the researcher has a high quality standard in terms of validity and reliability and can be generated for a large population (Johnson & Onwuegbuzie, 2004). Furthermore, the aim of this study was to investigate the extent to which manufacturing SMEs in Cape Town utilise MATs, such as the BSC and budgets, to improve their performance. This goal required quantitative data to decide the percentage of manufacturing SMEs that use MATs. Hence, the positivist paradigm, which is quantitative, was considered more suitable to achieve this goal.

3.3 Research Method

Methods are the specific techniques and procedures used to collect and analyse data (Scotland, 2012). Of the two types of methods quantitative and qualitative**,** this study adopted a quantitative research method in order to suit the paradigm discussed earlier. It's therefore elaborated below.

3.3.1 Quantitative research method

The quantitative method is a research approach that involves the collection and analysis of data (Bryman, 2012:35). This method was found appropriate for this study for a number of reasons. Firstly, the quantitative findings are likely to be generalised to a whole population or

a sub-population because it involves the larger sample which is randomly selected (Rahman, 2017). Secondly, the data analysis is less time consuming as it uses the statistical software, such as SPSS (Rahman, 2017).Thirdly, the quantitative research places emphasis on numbers and figures in the collection and analysis of data while the qualitative research does not use numbers which makes it difficult or impossible to simplify findings and observations (Eyisi, 2016).

3.4 Research Design

A research design embraces the structure of the study and the procedures followed to obtain answers to the research questions (Cooper & Schindles, 2011:147). The research was empirical and descriptive in nature since its main intention was to describe the research problem in the form of a perception. The study describes the extent to which manufacturing SMEs use MATs (BSC and budgets) to improve their business performance. It is important to note that descriptive research is concerned with determining the frequency with which something occurs or the relationship between variables (Bryman & Bell, 2003).

3.5 Research Process

3.5.1 Population and sample size

A population is an aggregate gathering of individuals from whom data is required (Wiid & Diggines, 2013:186).The target population included owners and managers of the manufacturing SMEs situated in Cape Town, particularly in the Kensington, Maitland Bellville, Cape-Town areas. It was challenging if not impossible to test the complete population, due to the absence of a complete list of manufacturing SMEs in Cape Town. Hence, a nonpurposive probability sampling method was employed to select the research sample and not every unit had a chance to be selected. This method helped the researcher to identify the participants that were willing to take part in the survey. Given that the usage of alternative sample methods, such as random sampling, was not suitable; thus, the researcher selected a sample size of 100. The sample size was in line with the study by Matsoso (2014) and Maduekwe, (2015) who used a similar size.

3.5.2 Sampling method

This study utilised a non-purposive sampling method. It was employed to select the 100 SMEs sampled. This technique helped to identify those companies that were able to take part in the research study and could provide relevant data for subsequent analysis. This method was suitable for this research because it involves the identification and selection of people or groups of people who are well informed about the use of MATs, such as the BSC and budgets, in their organisation.

3.5.3 Data collection instruments and justification

The study adopted a structured questionnaire. This survey instrument is appropriate for this research because the administration is inexpensive and easy when gathering data from a large number of respondents (Lawal, 2013). Secondly, most people are familiar with surveys and some of them feel more comfortable responding to a survey than participating in an interview. The information for the development of this instrument was taken from Matsoso (2014) and Maduekwe (2015) studies, albeit with some slight modification.

3.5.4 Questionnaire design

The questionnaire was divided into five sections, which comprised 12 closed –ended questions. Akbayrak (2000) posit that the main advantage of the close ended question is that it has greater uniformity of measurement and so has higher reliability; making respondents answer in manner fitting the response category. In addition close questions are easy to administer, easily codes and analysed, and are more likely to produce fully completed questions while avoiding irrelevant responses (Bird, 2009). Specific sections of the questionnaire are organised and described below.

3.5.4.1 Section A1: Use of the BSCs

Question 1 of Section A1 of the questionnaires tries to establish whether the manufacturing SMEs used the BSC or not. The following questions one were based on “Yes or No” criteria.

Question 1: *Does your business use the BSC?* This question had the aim of determining whether the participants use the BSC or not. Those who pointed out that they do not use the BSC were asked to move to Section A2 (budgeting tools). On the other hand, respondents who pointed out that they use the BSC were asked to answer Question 2 of Section B1.

3.5.4.2 Section B1: Types of the BSC measures: financial and non-financial used in your organisation

Question 2: *How often does your business use the following types of BSC measures (financial and non-financial)?* The purpose of this question was to establish how frequently the manufacturing SMEs use different types of the BSC measures on their business performance. The question was made up of four types of financial measures and eight nonfinancial measures on a 5-point Likert scale ranging from “Never” to “All the time”.

3.5.4.3 Section A2: Use of budgets

Section A2 consists of one question; the researcher asked for particular details regarding the use of budgets. The following questions was based on “Yes or No"" criteria.

Question 3: *Does your business use budgets?* This question had the aim of determining whether the participants use budgets or not. Those who pointed out that they do not use budgets were asked to move to Section C. On the other hand, respondents who pointed out that they use budgets were asked to answer Question 4 of Section B2.

3.5.4.4 Section B2: Types of budgeting tools

Question 4: *How often does your business use the following types of budgets?* This question was aimed to find out the types of budgets most used by manufacturing SMEs. The question was made up of six types of budgets on a 5-point Likert scale ranging from "Never" to "All the time".

3.5.4.5 Section C: Purpose of using management accounting tools

This section focused on the purpose of using MATs. It was designed to answer the investigative question (**Question 5**): *Are MATs, such as the BSC and budgets, used by manufacturing SMEs to improve their business performance.* The aim of Question 5 was to find out whether the manufacturing SMEs use MATs to improve their business performance. It was made up of one purpose that was based on "Yes or No" criteria.

3.5.4.6 Section D: Perceptions on the effectiveness of MATs used in your organisation

This section consists of one question based on a 5-point Likert scale ranging from "Very ineffective" to "Very effective" and represents the participant opinions about the effectiveness of MATs, such as the BSC and budgets, used in their organisations. It was designed to answer the investigation question (**Question 6**): *What are the perceptions of manufacturing SMEs regarding the effectiveness of the current MATs, such as the BSC and budgets that are used in their organisation?*

3.5.4.6 Section E: Biography

This section comprises six questions (Questions 7 to 12). The researcher asked for particular details concerning the business profile, the existence of the business, the number of employees as well as the background of the responded. Section 6 was asked last so as to impede the participants from answering the questions that are of most importance.

3.5.5 Data collection method

Data collection was done through self-administered questionnaires. The researcher administered questionnaires to owners, managers and accountants through a door-to-door survey process of manufacturing SMEs. Some questionnaires were dropped and collected the same day from business owners, managers or accountants who were available and

willing to immediately respond. Other questionnaires were collected the following day or later depending on the participants. This method was deemed appropriate as it affords a high response rate and allowed the researcher to explain unclear or difficult question to managers, accountants, and owners within the manufacturing SMEs in Cape Town.

3.5.6 Data analysis methods

This study utilised a quantitative method and the data gathered was captured and analysed using the SPSS software, Version 25. This software was adopted because it can generate a general and descriptive overview of the information through frequency tables, graphs and charts. It can also provide all analyses, such as hypothesis tests, T-test, chi-square, z-test, and analysis of variance (Bird, 2009; Chamanlal, 2014). In addition, this software is regarded as the fastest and most reliable statistical analytical tool for quantitative data (Sarantakos, 2007:118). It also helps a researcher to eliminate errors in calculation.

Furthermore, this study used a descriptive statistics to analyse and present the data. The descriptive statistics is concerned with determining the frequency with which something occurs or the relationship between variables (Bryman & Bell, 2003). This method assisted the researcher to summarise the data from the sample of 100 manufacturing SMEs.

3.5.7 Reliability and data validity

Reliability and validity are the two most important and fundamental features in the evaluation of any measurement instrument for a good research (Mohajan, 2017).

3.5.7.1 Reliability of the research instrument

According to Drost (2011), reliability is consistency of measurement or stability of measurement over a variety of conditions in which the same results should be obtained.

For this study, reliability was tested to ensure the reproduction of similar outcomes if the questionnaire somehow managed to be directed to a similar population utilising a similar methodology at a different time. To accomplish this, a test of the reliability of the questionnaire was conducted during the experimental stage.

3.5.7.2 Validity of the research instrument

Validity is concerned with whether our research is believable and true and whether it is evaluating what it is supposed or purports to evaluate (Zohrabi, 2013). In other words, validity is an indication of the extent to which a research instrument measures what it is expected to measure (internal), and the extent to which it leads to a valid conclusion (external) (Leedy & Ormrod, 2005:31). Hence, validity of a research instrument may be internal or external.

3.5.7.3 Internal validity

Internal validity refers to the similarity of the research findings with reality, it also deals with the degree to which the researcher observes and measures what is supposed to be measured (Zohrabi, 2013). There are different types of internal validity. While three are discussed below, for the purposes of this study, only construct and content validity were deemed necessary.

3.5.7.3.1 Construct validity

Construct validity refers to the extent to which an instrument accurately measures a theoretical construct that it is designed to measure (Ghzali, 2016). According to Rowley (2002), the best way of ensuring construct validity is through the use of a pilot test. In this study, as it was earlier stated, the questionnaire was handed to four academics with experience in questionnaire design. Throughout this process, academics were led to deepen their understanding of each question and to point out conceivable gaps that undermined the construct validity of the questionnaire. The questionnaire was modified according to the proposed modifications to improve its construct validity.

3.5.7.3.2 Content validity

Content validity is the extent to which a research instrument accurately measures all aspects of a construct (Heale & Twycross, 2015). According to Mohjan (2017), content validity always depends on the judgment of experts in the field. To improve the content validity of the study, the opinions of four academics with vast experience in questionnaire design were obtained regarding the adequacy and coverage of the questions included in the questionnaire, hence unclear and obscure questions were amended, and ineffective and non-functioning questions were discarded.

3.5.7.3.3 External validity

External validity refers to the degree to which research findings based on a sample can be generalised to the population from which the sample is taken or to other comparable populations in terms of contexts, people, times, and settings (Leedy & Ormrod, 2005:105). To achieve external validity, a random sampling technique is usually recommended to ensure that the sample is representative of the population (Brynard & Hanekom, 2006:48). In the absence of a complete list of manufacturing SMEs in the Cape Town, this study could not use this technique. Nevertheless, a large target sample size of 100 companies was set to increase the representativeness of the sample. Consequently, external validity was deemed to have been achieved to some extent.

3.6 Ethical Considerations

Research ethics are moral principles that govern researchers‟ actions and activities; a code which researchers must conform to in order to protect both themselves and their research subjects (Cohen, Manion & Morrison, 2011). According to Kumar (2005:212), there are ethical issues concerning research participants that need to be taken into consideration when conducting a research. The ethical issues the researcher considered in this research are discussed below.

3.6.1 Informed consent

Consent was obtained from participants before conducting the research on respective SMEs. The data was only collected once the researcher received ethical clearance from CPUT‟s ethics committee. Participants were assured that they were free to withdraw from the research process at any time, and informed that the information they had provided in response to the questions would be used for academic purposes only.

3.6.2 Confidentiality and anonymity

The information from the respondents was treated in strict confidentiality. Participants were assured that their personal details were not going to be revealed. In addition, the participants were given the choice to remain anonymous.

3.6.3 Voluntary participation

Only volunteers in full possession of the facts about the research project were used to answer the questionnaires. Participants were invited to participate on the clear understanding that they were under no obligation to do so, and that there were no negative consequences for them if they did not.

3.7 Summary

This chapter discussed the approach adopted to conduct the research study and the methods used. The research plagiarism adopted in this study was first discussed in this chapter. Thereafter, the chapter discussed the research method, and the research design employed. The chapter also described the research process, which included the research population, the sample techniques used, the data collection instrument and justification for the questionnaire survey adopted, the data collection method, the data analysis method, the descriptive statistics employed to analyse the data, and the measures taken to ensure the reliability and validity of the research. Lastly, the ethical consideration was discussed.

CHAPTER FOUR
ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

The previous chapter provided an overview of the research methods employed in the study. The purpose of this chapter is to present an analysis and discussion of the results of the survey questionnaire administered to investigate the use of MATs, such as the BSC and budgets, to improve the business performance of manufacturing SMEs in Cape Town.

4.2 Restatement of Research Objectives

The aim of this study was to investigate the extent to which manufacturing SMEs utilise MATs, particularly the strategic management tool, such as the BSC and budgets, to improve their business performance. To accomplish this aim, the study was guided by the following objectives:

1. To determine whether the manufacturing SMEs in Cape Town use MATs, such as the BSC and budgets.
2. To ascertain the types of BSC measures and budgets used by manufacturing SMEs in Cape Town.
3. To find out whether manufacturing SMEs use MATs, such as the BSC and budgets, to improve their business performance.
4. To determine the perceptions of manufacturing SMEs on the effectiveness of the current MATs, such as BSC and budgets, used in their organisation.

4.3 Response Rate

A total of 100 questionnaires were distributed to manufacturing SMEs in Cape Town. Out of them all, 82 were completed 18 were not completed. They were either lost or could not be retrieved from respondents despite multiple attempts resulting in the response rate of 82%. Compared to some previous similar studies, this rate was high (Ahmad, 2012; Ocran et al., 2017). According to Mugenda and Mugenda (2003) and Musando (2013) a response rate of 50% is adequate for a study, 60% is good, and 70% is excellent for a study. Thus, the response rate of 82% was ideal for the study. The following table represents the response rate.

Table 4.1: Response rate

	Number of participants	Percentage %
Target participants	100	100%
Not retrieved	-18	-18%
Response received	82	82%
Total	**82**	**82%**

(Source: own source)

4.4 MATs analysis and discussion

This section analyses and discusses the results of the questionnaire survey.

4.4.1 The use of the BSC by manufacturing SMEs

The segmentation of the pie chart in Figure 4.1 are the responses of Question 1 of the questionnaires on whether manufacturing SMEs use the BSC or not. With a target sample population of 82%, 68.3% of respondents said that they do not use the BSC, while the remaining 31.7% do. Those findings corroborate the study of Mahmoud (2014), who found that 50.7% of respondents in Bahrain do not use the BSC. They are also in line with the study of Monte and Fontenete (2012) who found that 69.7% of participants in Portugal do not use the BSC. Hoque (2014) asserts that among SMEs, the main use of the BSC is improving their chances of survival. Given the high percentage of respondents that do not use the BSC, these results are equivalent to the problem statement, which states that the underperformance of manufacturing SMEs could be influenced by the non-usage of BSC. Those findings can be clarified by the fact that only a minority of participants holds an academic degree, that is, 17% of respondents (14.6% have degrees plus 2.4% have post graduate diplomas). This is seen in Figure 4.6 on the participants‟ level of education. Given that the BSC is taught in higher education, the personal willingness to use or adopt it may also be linked to the level of knowledge that the participants have.

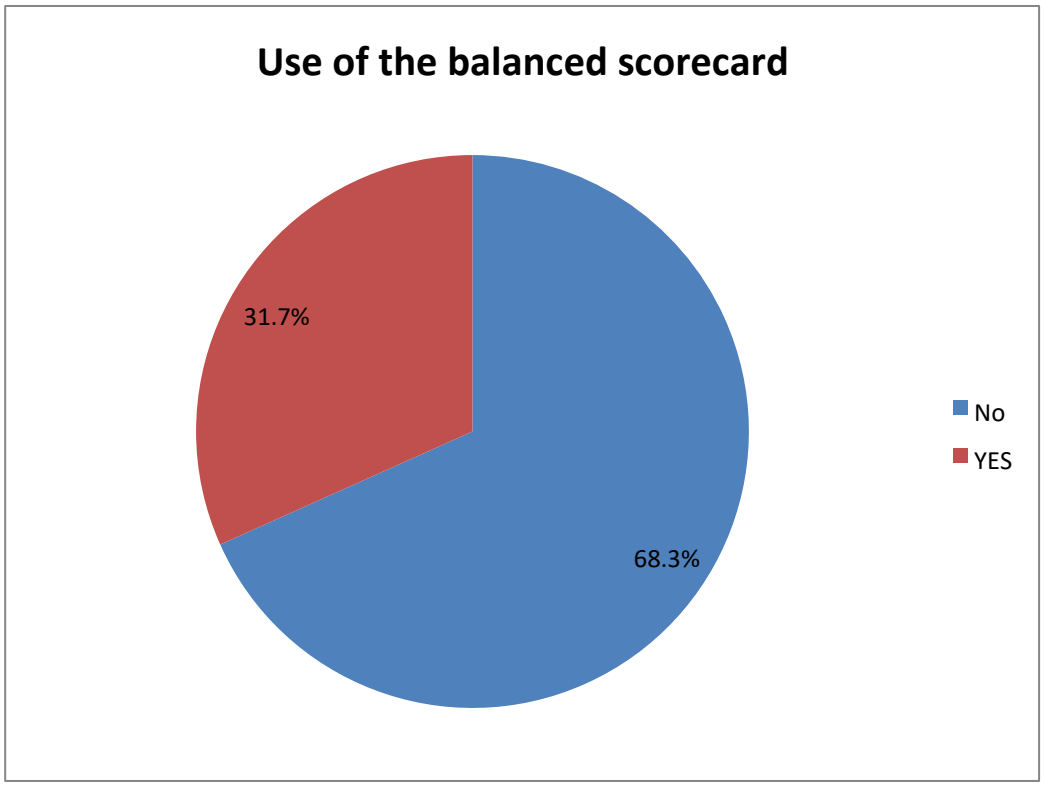

Figure 4. 1: Use of the balanced scorecard (Source: own source)

4.4.2 The use of numerous types of the BSC measures (financial and non-financial) by manufacturing SMEs

Respondents who indicated in Question 1 that their businesses used the BSC were asked to answer Question 2 of the questionnaire on how often SMEs evaluate their business using the two parts of the BSC, that is, the financial and non-financial measures. The financial measures consisted of sales growth, cash flow, net operating income, net profit margin and return on investment, while the non-financial measures consisted of the number of complaints from customers, customer satisfaction survey, on-time deliveries, product quality, manufacturing lead time, employees" turnover rate and job satisfaction survey. Participants were asked to select the frequency ranging from “never”, “seldom”, “sometimes”, “most of the time” to “all the time”.

Table 4.2: How often various types of the BSC measures are used by manufacturing SMEs

Balanced Scorecard Tool	Percentage that used the BSC all the time	Participants N=26	Standard Deviation
Financial Measures		**Mean**	
Sales growth	92.3%	4.31	0.618
Net operating income	76.9%	3.92	1.017
Net profit margin	76.9%	4.12	1.177
Cash flow	65.4%	3.88	0.864
Return on investment	57.7%	3.65	1.325
Non-Financial Measures			
Number of on time Delivery	73.1%	3.88	0.766
Product quality	69.2%	4.31	0.938
Employee productivity	69.2%	3.88	0.993
Number of complaints from customers	65.4%	3.69	1.644
Manufacturing lead time	53.8%	3.85	1.255
Employee turnover rate	46.2%	3.39	1.289
Job" satisfaction survey	42.3%	3.42	0.987
Customer Satisfaction Survey	38.5%	3.27	1.185

Scale: 1= never; all the time (Source: Field work)

For more precision, the percentage of participants who stated that their businesses used the BSC measures (financial and non-financial) the responses “most of the time” and “all the time” were combined and presented as a percentage of respondents that used the BSC measures all the time. Hence, those who stated that their business “never”, “seldom”, and “sometimes”, used the BSC measures were treated as having not used it. This method was applied by other researchers, such as Ahmah (2012), Maduekwe (2015), and Ocran et al (2017), who stated that the words “sometimes” and “seldom” suggest infrequent to almost non-usage of BSC.

The results show that the respondents were given more prominence to the financial measures. Among all the financial measures listed in Table 4.2, sales growth was the most used, as they were used by 92.3% of the participants, followed by the net operating income and the net profit margin, which were equally used by 76.9% of the respondents; 65.4% of respondents mostly used the cash flow. The least used financial measure was the returns on investment, used by 57.7%. These results were confirmed by the mean value of 4.31, which shows that sales growth was the most used financial measure. The standard deviation of more than one shows that the respondents did not agree about the frequency usage of all the financial measures expect for sales growth and cash flow.

The findings are consistent with the study of Ahmah (2012) who revealed that the most commonly used financial measure was sales growth, followed by net operating income. The study is also aligned with that of Chimwani et al. (2013). However, Chimwani et al.‟s (2013) finding shows some difference in rating; they rated sales growth as the most commonly used financial measure, followed by cash flow. The results are also consistent with the study of Al Sawalqa et al. (2011) who found a high uptake of the financial measures by 100% of participants in Jordan.

Regarding the non-financial measures, the type most used is the number of on-time delivery (73.1%). Product quality and employee productivity were equally used by 69.2% of respondents, while number of complaints from customers had 65.4%, manufacturing leadtime had 53.9%, employee turnover rate had 46.2%, and job satisfaction survey had 42.3%. The least commonly used non-financial measure was the customer satisfaction survey used by 38.5% of respondents. The standard deviation of more than one shows that the respondents did not agree about the frequency usage of all the non-financial measures except for product quality, employee productivity, number of complaints from customers and job satisfaction.

The above finding concurred with the finding of Ahmah (2012) who found that on-time delivery was the mostly used non-financial measure (79%).

4.4.3 The use of budgets

Demonstrated in Figure 4.2 are the responses of Question 3 of the questionnaires on whether SMEs use budgets or not. From a population of 82 making 82%, 70.7% pointed out that their businesses used budgets while 29.3% said they do not. A high percentage of respondents indicated that their businesses use budgets. These results are contrary to the problem statement, which states that the underperformance of manufacturing SMEs could be influenced by the non-usage of budgets. However, those results are in line with the study of Ocran et al. (2017) who found that 70.83% of Ghanaian SMEs used budgets.

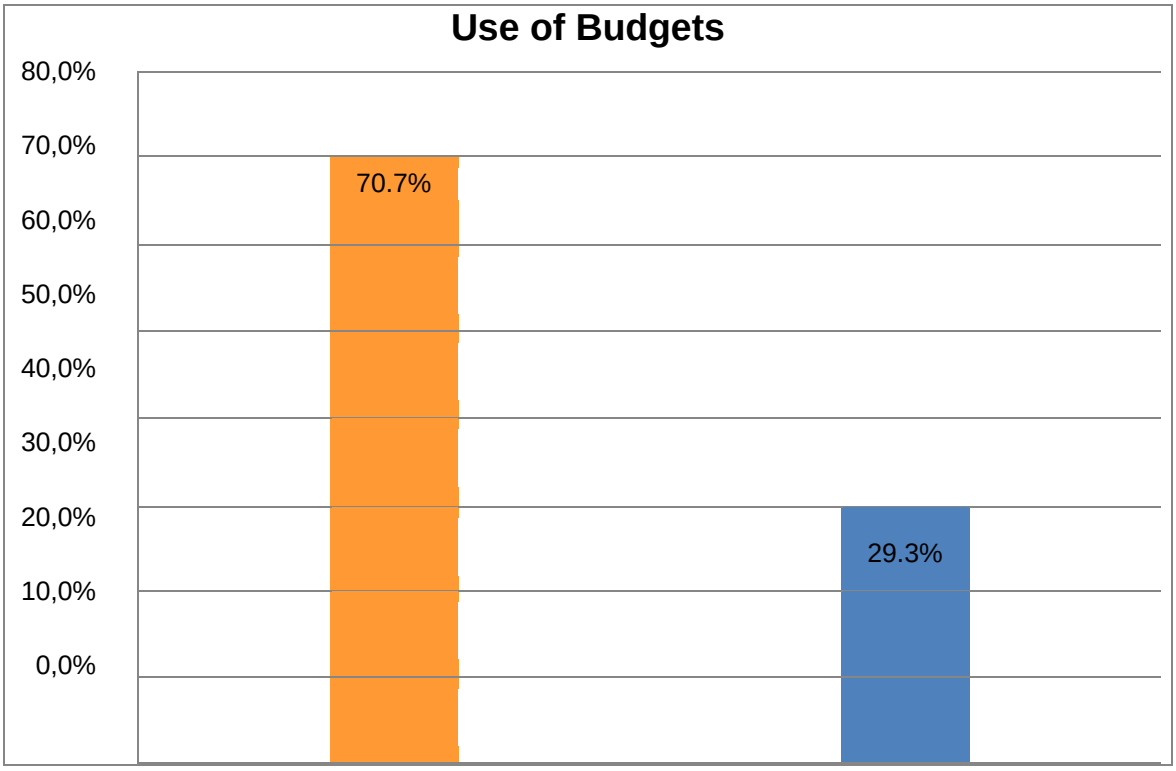

Figure 4. 2: Use of budgets (Source: Field work)

4.4.4 The use of numerous types of budgets by manufacturing SMEs

Participants who pointed out in Question 3 that their businesses used budgets were required to answer Question 4. Table 4.3 shows the percentage categories from respondent‟s reaction of Question 3 on the various types of budgets most used in their businesses. These comprised sales budget, production budgets, direct materials budgets, direct labour budgets, manufacturing overheads budget, and cash budget, whose answers was assigned on a 5point Likert scale. This is indicated below.

The number of participants that use various types of budgets is 58 (this is 70.7% out of 82 participants).

Table 4.3: How often various types of budgets are used by manufacturing SMEs

TYPE OF BUDGETS	Percentage that used budgets all the time	PARTICIPANTS N=58	STANDARDS DEVIATION
		Mean	
Cash Budget	72.4%	4.14	1.357
Production budget	69.0%	4.21	1.104
Sales budget	67.2%	4.19	1.177
Direct Materials budgets	60.3%	3.71	1.026
Direct Labour budget	55.2%	3.71	1.243
Manufacturing overheads budget	50.0%	3.14	1.369

Scale: 1= never; all the time (Source: Field work)

For more precision, the percentage of participants who stated that their businesses used different types of budgets “most of the time” and “all the time” were combined and presented as percentage of respondents that used budgets all the time. Hence, those who stated that their business “never”, “seldom”, and “sometimes” „"used budgets were treated as having not prepared budgets. This method was applied by researchers such as Ahmah (2012), Maduekwe (2015), and Ocran et al (2017) who stated that the words sometimes and seldom suggest infrequent to almost non-usage of budgets.

Descriptive analysis

As shown in Table 4.3, the most commonly used budget was cash budget adopted by 72.4% of participants, followed by production budget adopted by 69.0% and sales budget used by 67.2% of the participants. In addition, 60.3% of the participants used direct material, followed by direct labour budget used by 55.2% of participants. The least commonly used budget was

the manufacturing overheads used by 50.0% of the participants. These results were confirmed by the mean value of 4.14 that shows that cash budget was the most used budget. The standard deviation of more than one shows that the respondents did not agree about the frequency usage of all the types of budgets.

The aforementioned results are in line with the finding of Tamuleviciene (2016) in Ukraine. Nonetheless, perceptions regarding budgets that are commonly used showed some difference in the rating. Tamuleviciene (2016) rated administrative expenses as the highest followed by overhead budget and direct labour budget.

4.4.5 Whether manufacturing SMEs‟ use MATs (BSC and budgeting tools) to improve their business performance

With regard to the purpose of using the BSC and budgets, only respondents who stated in Question 1 that they use the BSC and Question 3 that they use budgets were asked to answer Question 5. This was sought to find out whether the manufacturing SMEs use MATs, such as the BSC and budgets, to improve their performance. Their answers were assigned either a “Yes” or “No”. The results are illustrated in Table 4.4 below.

The number of participants that use the BSC is 26 (this is 31.7% of 82 participants). The number of participants that use budgets is 58 (this is 70.7% of 82 participants).

Table 4.4: Whether manufacturing SMEs‟ use MATs to improve their business performance

Purpose of using MATs	Percentage that do not use MATs to improve business performance	Percentage that use MATs to improve business performance
BSC		
To improve business performance	11.5%	88.5%
Budgeting tools		
To improve business performance	17.2%	82.8%

(Source: Field work)

Descriptive analysis

The data collected show that from the 26 individuals who indicated that their businesses use the BSC, 88.5% of respondents indicated that they were making use of the BSC in order to improve their business performance while the remaining 11.5% do not use the BSC to improve their business performance. On the other hand, from the 58 participants who stated that their companies used budgets, 82.8% said that they were making use of budgets to improve their business performance, while 17.2% do not use budgets to improve their business performance.

The overall result showed that the purpose for which participants used MATs (such as the BSC and budgets) the most was to improve their business performance (BSC had 88.5% and budgeting tools had 82.8%).

The study is consistent with the study of Farrooq and Hussain (2011) who reported that organisations in India use the BSC to improve their business performance. The study is also is consistent with the study of Eton et al. (2018) who revealed that organisations in Uganda use budgets to improve their business performance.

4.4.6 Perceptions on the effectiveness of MATs (BSC and budget tools) used by manufacturing SMEs

Demonstrated in Table 4.5 are the responses of managers, accountants and owners of the manufacturing SMEs in Cape Town on the perceived effectiveness of the BSC and budgets that are used in their organisations. The percentage of participants who stated that the BSC or budgets used in their companies was “somewhat effective” and “very effective” were combined and presented as a percentage of respondents that indicated that the BSC or budgets was perceived to be effective. Thus, those who stated that their businesses perceived the BSC or budgets to be “very ineffective”, “ineffective” and “neutral” were treated as ineffective.

The number of participants that use the BSC is 26 (this is 31.7% of 82 participants). The number of participants that use budgets is 58 (this is 70.7% of 82 participants).

`Table 4.5: Perception on the effectiveness of MATs (BSC and budget tools) used by manufacturing SMEs

Management Accounting Tools	Percentage that perceived the MATs used to be effective	Mean	Standard Deviation
BSC tool	76.9%	4.31	1.158
Budgeting tools	62.1%	3.69	1.173

Scale: 1= very ineffective; very effective (Source: Field work)

From the results, it is perceived that the BSC was the most effective with a 76.9% rating. Budgeting tools were rated second by 62.1% of respondents. The overall result showed that MATs were perceived to be effective (BSC with 76.9% and budgeting tools with 62.1%). These results were affirmed by the BSC tool mean value of 4.31 and the mean value of budgeting tool (3.69) that shows that MATs were perceived to be effective. The standard deviation of more than one shows that the respondents did not agree about the effectiveness of the MATs used.

The results are consistent with the study of Anand et al. (2005) who found that the BSC was effective. Anand et al. (2005) added that the usage of the BSC has led to the identification of cost reduction opportunities in the respondents‟ companies, which have resulted in an improvement of the bottom line. The results are also consistent with the study of Maduekwe (2015) who found that budgeting tools were perceived to be effective; this was indicated by 59.84% of respondents.

4.5 Respondents‟ Biography Discussion

In this section of the questionnaire, respondents were required to provide information regarding their personal profile and the company profile. This was comprised of their gender, the range of age, their position in their organisation, the level of education, the years of experience and the number of employees that their business had.

4.5.1 Participants‟ genders

In Question 9 of the questionnaire, respondents were asked to indicate with a cross whether they were male or female. From the 82% of individuals who completed the questionnaire,

36.6% were males while the remaining 63.4% were female. The findings are an indication that females are more dominant in the manufacturing SMEs. The results are shown in Figure 4.3 below.

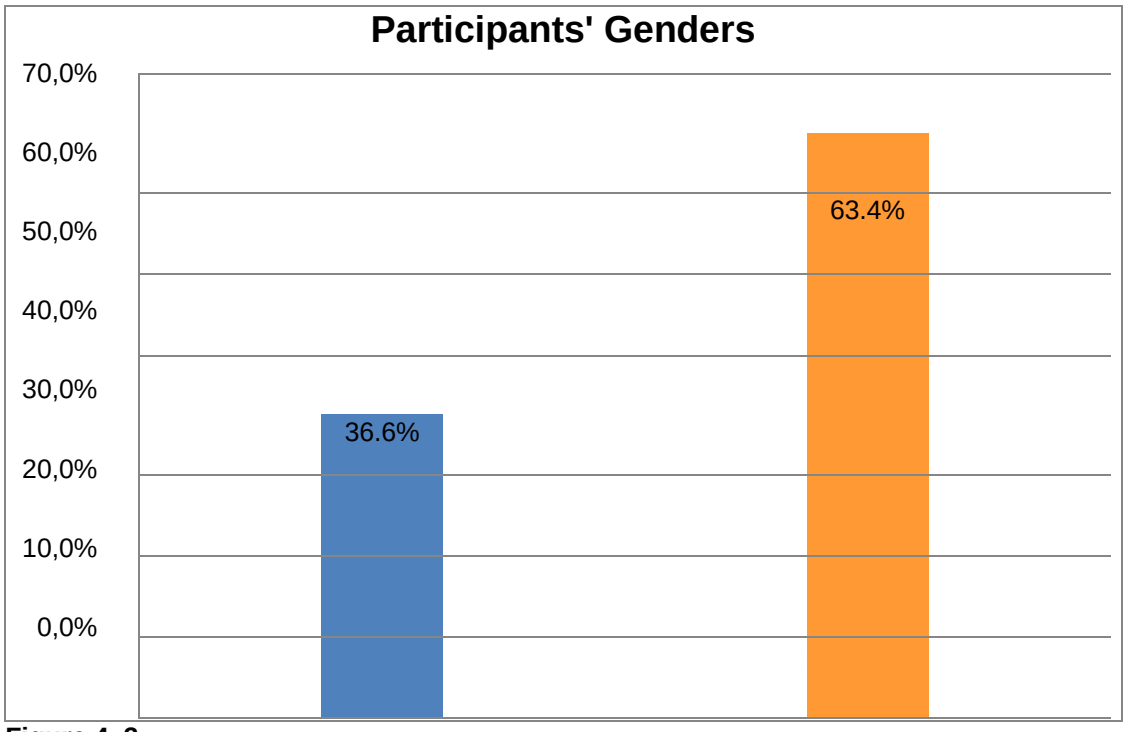

Figure 4. 3: Participants‟ genders

4.5.2 Participants‟ range of age

When asked in Question 10 on the range of age that the respondents were falling under, as shown in Figure 4.4, 2.4% of the respondents stated that they were under the age of 21; 11% between the ages of 21-30; 26.8% between the ages of 31-40; 43.9% between the ages of 41-50; 13.4% between the ages of 51-60; and 2.4% were older than 60. The responses given are illustrated in Figure 4.4.

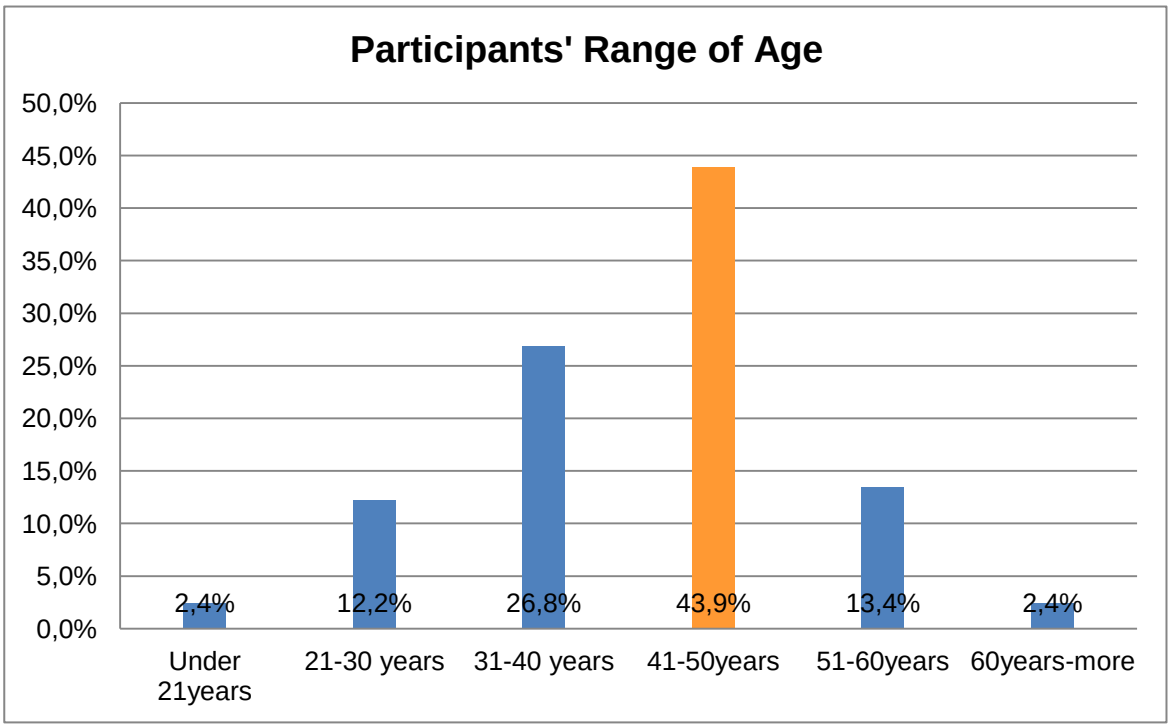

Figure 4. 4: Participants" range of age

4.5.3 Participants" position in the organisation

The sample respondents were required to indicate their position in their companies. From a population total of 82%, 37.8% pointed out that they were owners, 52.4% were managers, while the remaining 9.8% were accountants. Given the fact that only managers, owners and accountants completed the questionnaire, these results confirm that these were respondents with correct information regarding the use of MATs in their business operations. This is indicated in Figure 4.5 .

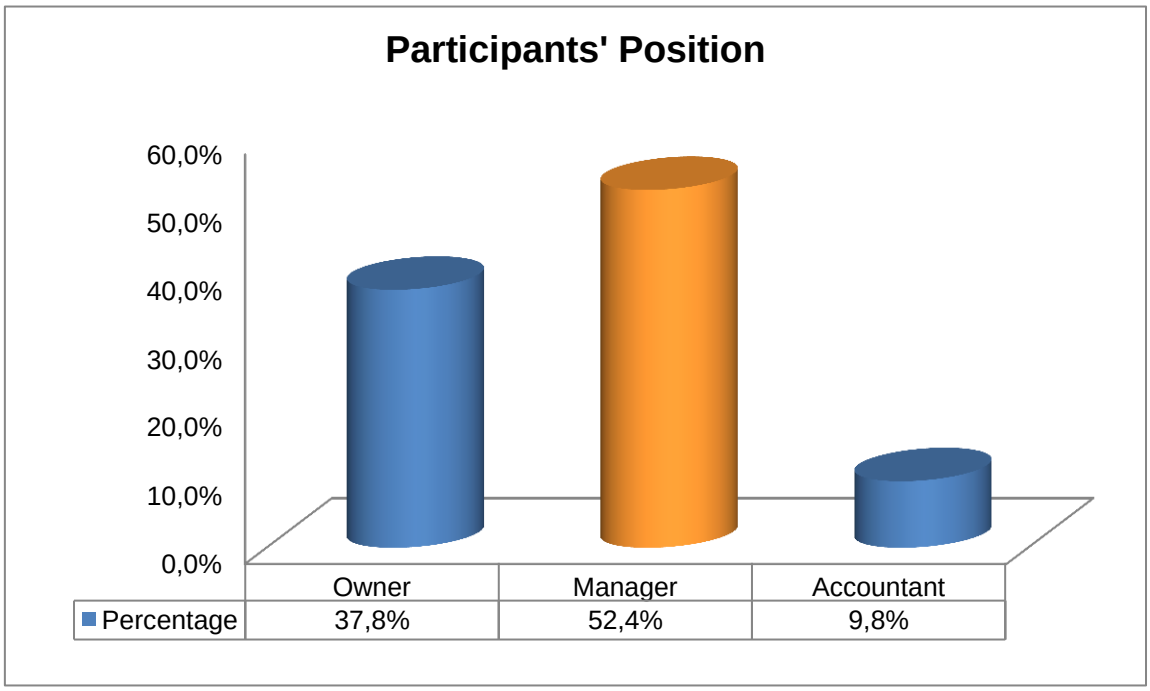

Figure 4.5: Participants' position

4.5.4 Participants' level of education

Regarding the level of education of the participants, the results show that 6.1% of respondents did not complete matric, 41.5% have only completed matric, 12.2% have national certificates, 23.2% have diplomas, and 14.6% have degrees while the remaining 2.4% have post graduate diplomas. The results are illustrated in Figure 4.6 below.

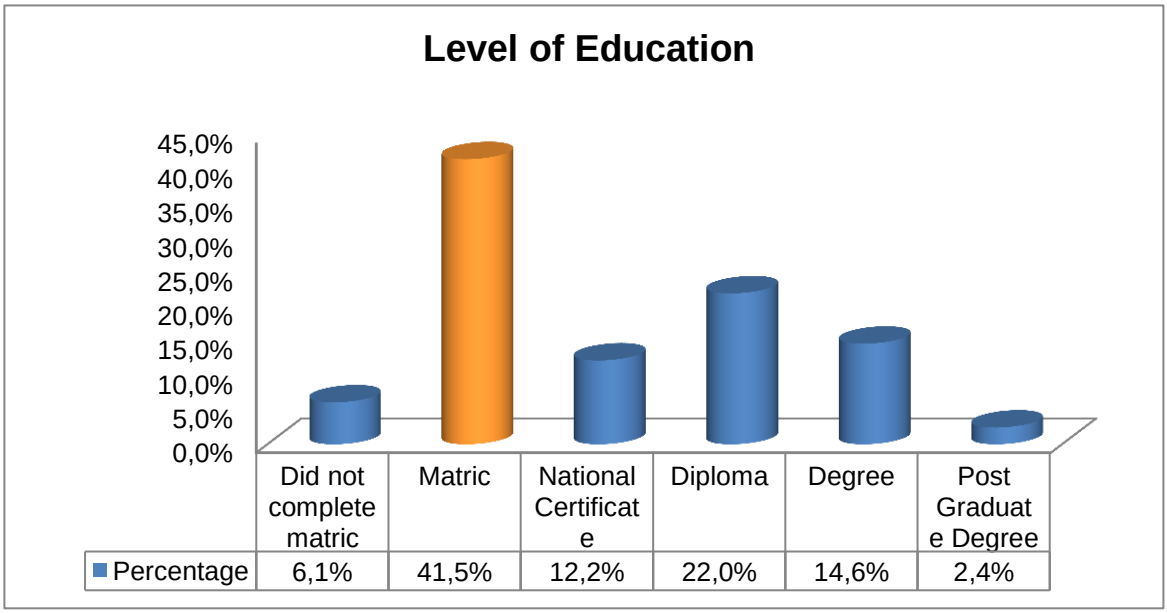

Figure 4.6: Participants' level of education

4.5.5 Participants" years of experience

With regard to the participants" years of experience, 13.4% of respondents indicated that they have been working for a particular organisation for less than one year, 18.3%between 1-5 years, 48.8% between 6-10 years, while 19.5% for more than 10 years. This is an indication that more than half of respondents were very experienced in their field of work.
The results are shown in the Figure 4.7 below.

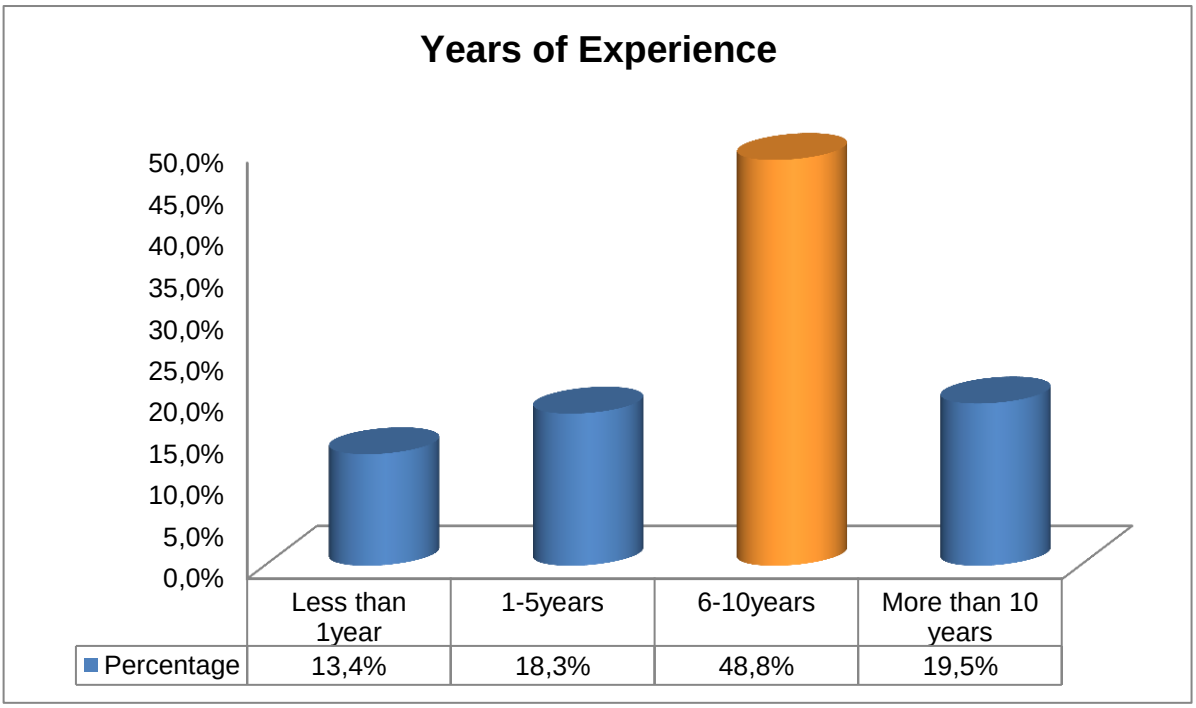

Figure 4.7: Participants" Year's Of experience

4.5.6 Participants" numbers of employees

Given that this study was based on manufacturing SMEs, only companies that had between 11 and 250 employees were allowed to answer the questionnaires. Hence, out of the 82 respondents, 24.4% indicated that they had 11-20 employees, 26.8% had 21-50 employees, while 48.8% had 51-250 employees. This is indicated in the Figure 4.8 (next page).

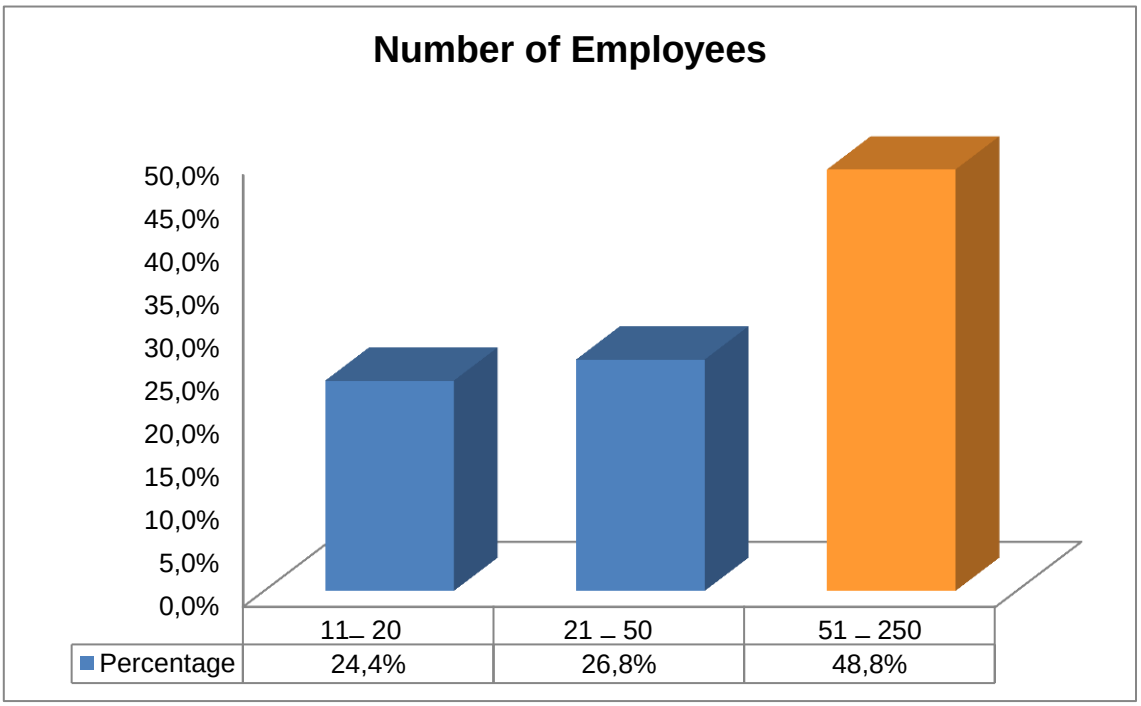

Figure 4.8: Participants' number of employees

4.6 SUMMARY OF THE CHAPTER

This chapter discussed and analysed the results obtained from managers, accountants and owners of the manufacturing SMEs in Cape Town on the use of MATS, such as the BSC and budgets. It also explored the type of BSC measures and types of budgets that they employed, the purpose for which they use MATs (BSC and budgets) and their perception on the effectiveness of the current MATs, such as the BSC and budgets, used in their organisation.

With regard to the use of the BSC, the analysis data revealed that 31.7% of respondents use the BSC. The financial measures used most of the time were sales growth (92.3%), operating income and the net profit margin equally (76.9%), the cash flow (65.4%). The most used financial measure was the returns on investment by 57.7%. On the other hand, the nonfinancial measure used most of the time was the number of on-time delivery (73.1%). Product quality and employee productivity were equally used by 69.2% of respondents, as well as number of complaints from customers (65.4%), manufacturing lead time (53.8%), employee turnover rate (46.2%), job satisfaction (42.3%). The least used non-financial measure was customer satisfaction used by 38.5% of respondents.

With regard to the use of budgets, the analysis data revealed that 70.7% of respondents used them. The most common type of budgets used by respondents were cash budget (72.4%), production budget (69.0%), sales budget (67.2%), direct material budget (60.3%),

and direct labour budget (55.2%). The least used budget was the manufacturing overheads budget used by 50.0% of the participants.

Concerning the purpose for which MATs are employed, the analysis data revealed that MATs are used for improving the business performance (BSC with 88.5% and budgets with 82.8%)

Lastly, the results in the data analysis showed that the BSC was the most effective with 76.9% rating, while budgeting tools were rated second (62.1%).

The next chapter will present the summary and conclusion of the study. In addition, the chapter will discuss limitations of the study, and make some recommendations for further research.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The main purpose of this study was to investigate the extent to which manufacturing SMEs use MATs, particularly the strategic management tools, such as the BSC and budgets, to improve their business performance. Given the fact that the use of these tools was lengthily researched over the years in developed countries, little was done in South Africa. Hence, there was a dearth of research on the use of MATs (BSC and budgets) particularly in the manufacturing SMEs. It was vital that the use of MATs by these entities be investigated. This chapter is represented as follows:

- Section 5.2 summarises the research problem, aim and research objectives presented in Chapter One.
- Section 5.3 summaries the analysis and discussion of the results that were presented in Chapter Four.
- Section 5.4 discusses the limitation of the study
- Section 5.5 and 5.6 presents the conclusion and provides some recommendations and suggestions for future studies.

5.2 Summary of the Research Problem, Aim and Research Objectives

5.2.1 Problem statement

There is a perceived lack of utilisation of MATs, particularly the strategic management tool, such as the BSC and budgets, by manufacturing SMEs in Cape Town. This lack of utilisation of the BSC and budgets in their operation can lead to business failure. Without the application of budgets and the BSC, managers may find it challenging to improve their performance and take decisions that will help them to achieve their goals.

5.2.2 Aim of the study

The aim of the study was to investigate the extent to which manufacturing SMEs in Cape Town use MATs particularly the strategic management tools, such as the BSC and budgets, to improve their business performance.

5.2.3 Objectives of the study

In order to address the problem statement, the following objectives were formulated:

1. To determine whether the manufacturing SMEs in Cape Town use MATs, such as the BSC and budgets.
2. To ascertain the types of BSC measures and budgets used by manufacturing SMEs in Cape Town.
3. To find out whether manufacturing SMEs use MATs, such as the BSC and budgets, to improve their business performance.
4. To determine the perceptions of manufacturing SMEs on the effectiveness of the current MATs, such as BSC and budgets, used in their organisation.

5.3 Summary of the Findings: Analysis and Discussion of Result

The results that were presented in Chapter Four are summaries in different sections according to the four objectives of the study stated above.

5.3.1 Research objective 1A: Use of the BSC by manufacturing SMEs

With regard to the usage of the BSC, the results revealed that a few respondents use the BSC. Given that only a few respondents use the BSC, the findings then confirmed the problem statement, which stated that the underperformance of manufacturing SMEs could be influenced by the non-usage of the BSC. The usage of the BSC by manufacturing SMEs is very important because it could assist them to measure and address internal failure factors and internal process, learning and growth perspectives, and also addresses external factors, by aligning them to customer and financial perspectives and linking them to internal business processes.

5.3.2 Research objective 2A: Types of the BSC measures (financial and nonfinancial) used by manufacturing SMEs

Regarding the types of financial measures of the BSC used by manufacturing SMEs, the results revealed that the three most commonly employed financial measures of the BSC by respondents were sales growth, operating income, the net profit margin, while the least used financial measures were the returns on investment. On the other hand, the three nonfinancial measures used by respondents most of the time were the number of on-time delivery, product quality and employee productivity; the least commonly used non-financial measure was customer satisfaction.

5.3.3 Research objective 1B: Use of budgets by manufacturing SMEs

With regard to the usage of budgets, the analysis data revealed that the majority of respondents use budgets. Hence, given the high percentage of respondents that indicated that their businesses use budgets, these results are contrary to the problem statement, which

states that the underperformance of manufacturing SMEs could be influenced by the non-usage of budgets.

5.3.4 Research objective 2B: Types budgets used by manufacturing SMEs

Regarding the types of budgets used by manufacturing SMEs, the results showed that the three most common types of budgets used by respondents were cash budgets, production budgets and sales budgets; the least commonly used budgets was the manufacturing overheads budget.

5.3.5 Research objective3: Whether manufacturing SMEs‟ use MATs (BSC and budgeting tools) to improve their business performance

Concerning the purpose for which the BSC and budgets are employed by manufacturing SMEs, the analysis data showed that manufacturing SMEs were making use of MATs for improving their business performance.

5.3.6 Research objective 4: Perceptions on the effectiveness of MATs such as the BSC and budgets used by manufacturing SMEs

As far as perceptions of decision-makers of the manufacturing SMEs regarding the effectiveness of the MATs, such as the BSC and budgets, used by these entities is concerned, the results in the data analysis revealed that the BSC was perceived to be the most effective MAT, while budgeting tools were rated second.

5.4 Limitations of the study

This study has the following limitations:

- This research only focused on the manufacturing SMEs because it is one of the most important sectors of the South African economy in terms of output and employment, and most of the manufacturing activities are performed by SMEs. Hence, the finding cannot be generalised to all SMEs situated in Cape Town.
- Only managers, owners and accountants of manufacturing SMEs were considered as decision-makers, while there may well be others who should have been included.
- The research only focused on budgets and the BSC, which may not reflect greatly on the performance of manufacturing SMEs. Hence, the results cannot be generalised to the use of other tools not included in this research.
- The researcher faced some limitations while distributing the questionnaires to owners, managers and accountants. Due to their busy schedules, it was difficult to get most of the participants to answer the questionnaires.

5.5 CONCLUSION, SUGGESTIONS AND RECOMMENDATION

5.5.1 Conclusion

MATs are very important given that they can assist manufacturing SMEs to improve their performance. This includes the ability to deal with increasing complexity, both internally and externally, as the business grows and to deal with a variety of problems and opportunities. The purpose of this study was to investigate the extent to which manufacturing SMEs use MATs, particularly the strategic management tools, such as the BSC and budgets, to improve their business performance. A quantitative method was used, a questionnaire was constructed, submitted for field trial with practitioners in the field, and this questionnaire was reconstructed in order to meet the expectation of the respondents. Data was collected from three employee groups, namely managers, accountants and owners in the selected manufacturing SMEs. In addition, a non-probability purposive method was used. A questionnaire was used to gather data. The collected data was captured using SPSS software from which illustrations showing the relationships between the variables under study were shown. The findings revealed that of the two MATs, only a few respondents used the BSC, while the majority of respondents used budgeting tools. The results also indicate that certain respondents mostly used the BSC and budgets for improving their business performance and the BSC was perceived to be the most effective MATs, while the budgeting tools were rated second. The above findings do in fact confirm that the underperformance of manufacturing SMEs could be influenced by the non-usage of BSC. With regard to budgets, the findings do not confirm that the underperformance of manufacturing SME could be influenced by the non-usage of budgets.

5.5.2 Suggestions for further research

Given that this study was conducted in the manufacturing SMEs operating in Cape Town only, further studies on MATs could be conducted on other sectors to find out if they consider MATs as important and establish the frequency of usage of these tools.

In addition, this study was of a quantitative nature. Further studies could be conducted on qualitative research through interviews that will provide a deeper understanding of how MATs improve the business performance of manufacturing SMEs.

Moreover, this study did not investigate the factors that inhibit manufacturing SMEs to adopt the BSC and budgets, therefore, future researchers should investigate particular factors as to why some manufacturing SMEs in Cape Town are not making use of MATs, particularly the BSC, given that it was found in this study that a minority of respondents used it.

5.5.3 Recommendation

- If possible some training programmes could be developed for use within the various sector education and training authorities (SETAs), which will assist in educating the SMEs‟ decision-makers on the importance and process of implementing MATs.

- Based on the findings of this study, the researcher recommends that it is imperative for SMEs to utilise MATs (BSC and budgets) in order to identify opportunities and survive potential risks in the face of the prevailing failure rates. MATs are instruments that enable management accountant to improve performance, facilitate decision-making, and support strategic goals and objectives. As such MATs are important tools which SMEs owners/managers can utilise to manage the business more efficiently and effectively. Failure to utilise MATs in managing businesses can lead to business failure among SMEs.

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APPENDICES
Appendix A: Permission Letter

PERMISSION LETTER

The use of management accounting tools to improve the business performance of small and medium manufacturing enterprises in Cape Town

Dear Respondent**,**

I, Sandrine Reine Kibangou, am doing research towards a master's degree in Cost and Management Accounting at the Cape Peninsula University of Technology in Cape Town. You are invited to participate in a study entitled: The use of management accounting tools to improve the business performance of small and medium manufacturing enterprises in Cape Town.

This study is for academic purposes only .The aim of the study is to investigate the extent to which manufacturing SMEs in Cape Town use MATs such as budgets and the balanced scorecard tool to improve their business performance.

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

Your participation in this study is voluntary and you are free to withdraw your participation at any time without obligation. The information provided will be kept in strict professional confidence. You are not required as the respondent to reveal your identification information as all responses will be recorded anonymously.

For enquiries please contact Sandrine via the email address provided below

Sandrinekibs02@gmail.com

Thank you for your time.

Signature ---------- Date……

P.O. Box 1906 • Bellville 7535 South Africa •Tel: +27 21 4603291 • Email: fbmsethics@cput.ac.za
Symphony Road Bellville 7535

Office of the Chairperson **Research Ethics Committee**	**Faculty:** **BUSINESS AND MANAGEMENT SCIENCES**

At a meeting of the Faculty's Research Ethics Committee on **21 August 2018**, Ethics **Approval** was granted to **Sandrine Kibangou (212054775)** for research activities of **Master of Management** at Cape Peninsula University of Technology.

Title of dissertation/thesis/project:	THE USE OF MANAGEMENT ACCOUNTING TOOLS ON IMPROVING THE BUSINESS PERFORMANCE OF SMALL AND MEDIUM MANUFACTURING ENTERPRISES IN CAPE TOWN Lead Researcher/Supervisor: Prof L Obokoh

Comments:

Decision: Approved

	**21 August 2018**
Signed: Chairperson: Research Ethics Committee	**Date**

Appendix B: Questionnaire

QUESTIONNAIRE

Section A1

Use of the Balanced scorecard

Please respond to the following question by indicating with an (x) in the appropriate box

1. **Does your business use the balanced scorecard?**

YES	NO

If "Yes", please proceed to question 2 , if "No" please proceed to „"Section A2

Section B1

Types of the Balanced scorecard measures: financial and non-financial

Please use the following scale to answer question 2 by indicating with an (x) in the appropriate box

1= NEVER 2= SELDOM 3=SOMETIMES 4= MOST OF THE TIME 5= ALL THE TIME

2. How often does your business use the following types of balanced scorecard measures?

Financial measures	1	2	3	4	5
2.1 Sales growth	1	2	3	4	5
2.2 Cash flow	1	2	3	4	5
2.3 Net operating income	1	2	3	4	5
2.4 Net profit margin	1	2	3	4	5
2.5 Return on investment	1	2	3	4	5
Non -financial measures					
2.6Number of complaints from customers	1	2	3	4	5
2.7 Customer Satisfaction	1	2	3	4	5
2.8 Manufacturing lead time	1	2	3	4	5
2.9 Number of on time Delivery	1	2	3	4	5

2.10 Product quality	1	2	3	4	5
2.11 Employee productivity	1	2	3	4	5
2.12 Job" satisfaction survey	1	2	3	4	5
2.13 Employees" turnover rate	1	2	3	4	5

Section A2

Use of Budgeting Tools

Please respond to the following question by indicating with an (x) in the appropriate box

3. Does your business use budgets?

YES	NO

If "Yes", please proceed to question 4,5 and 6 , if "No" please proceed to "Section E""

Section B2

Types of budgeting tools

Please use the following scale to answer question 4 by indicating with an (x) in the appropriate box

1= NEVER 2= SELDOM 3=SOMETIMES 4= MOST OF THE TIME 5= ALL THE TIME

4. How often does your business use the following types of budgets?

4.1Sales budget	1	2	3	4	5
4.2 Production budget	1	2	3	4	5
4.3 Direct Materials budgets	1	2	3	4	5
4.4 Direct Labour budget	1	2	3	4	5
4.5 Manufacturing overheads budget	1	2	3	4	5
4.6 Cash Budget	1	2	3	4	5

SECTION C

PURPOSE OF USING MANAGEMENT ACCOUNTING TOOLS

5. Does your business use management accounting tools for the following purpose? (Please tick the appropriate box).

	YES	**NO**
Balanced scorecard Tool		
5.1 To improve the business performance		
Budgeting Tool		
5.2 To improve the business performance		

SECTION D

PERCEPTIONS ON THE EFFECTIVENESS OF MANAGEMENT ACCOUNTING TOOLS USED IN YOUR ORGANISATION

Please use the following scale to answer question 8 by indicating with an (x) in the appropriate box

1=Very Ineffective, 2=Ineffective, 3 =Neutral, 4=Somewhat Effective, 5=Very Effective

6. What are your perceptions regarding the effectiveness of the following management accounting tools?

6.1 Balanced scorecard tool	1	2	3	4	5
6.2 Budgeting tools	1	2	3	4	5

SECTION E

BIOGRAPHY

Please respond to the following questions by indicating with an (x) in the appropriate box

7. Gender

Male	Female

8. In which range of age do you fall under?

Under 21years	21-30 years	31-40 years	41-50years	51-60years	60yearsmore

9 . What is your position in the organisation?

Owner	Manager	Accountant

10. What qualification do you possess?

Did not complete matric	Matric	National Certificate	Diploma	Degree	Post Graduate Degree

11. How long have you been working for this company?

Less than 1year	1-5 years	6-10 years	More than 10 years

12. How many employees does the company currently have employees?

11 – 20 employees [ ] **21 – 50 employees [ ]**

51 – 250 employees [ ]

Thank you for your time and participation. If you would like feedback on the findings of this study, please e-mail Sandrine at the following e-mail address: sandrinekibs02@gmail.com

Appendix C: Frequency Distribution

FREQUENCIES VARIABLES=AQ1
/STATISTICS=STDDEV MEAN /ORDER=ANALYSIS.

Frequency Table

Does your business use the balance scorecards?					
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**	**Frequency**
Valid	NO	56	68.3	68.3	68.3
	YES	26	31.7	31.7	100.0
	TOTAL	82	100.0	100.0	

FREQUENCIES VARIABLES=AQ 2.1 AQ2.2 AQ2.3 AQ2.4
AQ2.5 /STATISTICS=STDDEV MEAN /ORDER=ANALYSIS.

STATISTICS

How often does your business use the following financial measures of the balance scorecard?					
	Sales growth	Cash flow	Net operating income	Net profit margin	Return on investment
N Valid	26	26	26	26	26
Missing	56	56	56	56	56
Mean	4.31	3.88	3.92	4.12	3.65
Std. Deviation	.618	.864	1.017	1.177	1.325

Frequency Table

Sales growth					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	SOMETIMES	2	2.4	7.7	7.7
	MOST OF THE TIME	14	17.1	53.8	61.5
	ALL THE TIME	10	12.2	38.5	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		
Total		82	100.0		

Cash flow					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	SELDOM	1	1.2	3.8	3.8
	SOMETIMES	8	9.8	30.8	34.6
	MOST OF THE TIME	10	12.2	38.5	73.1
	ALL THE TIME	7	8.5	26.9	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		

Total		82	100.0		

Net operating income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SELDOM	4	4.9	15.4	15.4
	SOMETIMES	2	2.4	7.7	23.1
	MOST OF THE TIME	12	14.6	46.2	69.2
	ALL THE TIME	8	9.8	30.8	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		
Total		82	100.0		

Net profit margin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SELDOM	5	6.1	19.2	19.2
	SOMETIMES	1	1.2	3.8	23.1
	MOST OF THE TIME	6	7.3	23.1	46.2
	ALL THE TIME	14	17.1	53.8	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		
Total		82	100.0		

Return on investment					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	NEVER	1	1.2	3.8	3.8
	SELDOM	6	7.3	23.1	26.9
	SOMETIMES	4	4.9	15.4	42.3
	MOST OF THE TIME	5	6.1	19.2	61.5
	ALL THE TIME	10	12.2	38.5	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		
Total		82	100.0		

```
FREQUENCIES VARIABLES=AQ2.6 AQ2.7 AQ2.8 AQ2.9 AQ2.10 AQ2.11 AQ2.12 AQ2.13
/STATISTICS=STDDEV MEAN   /ORDER=ANALYSIS.
```

Frequencies

STATISTICS

How often does your business use the following non- financial measures of the balance scorecard?

	Number of complaints from customers	Customer Satisfaction	Manufacturing lead time	Number of on time Delivery	Product quality	Employee productivity	Job‟ satisfaction survey	Employees‟ turnover rate
N Valid	26	26	26	26	26	26	26	26
Missing	56	56	56	56	56	56	56	56
Mean	3.69	3.27	3.85	3.88	4.31	3.88	3.42	3.69
Std. Deviation	1.644	1.185	1.255	.766	.928	.993	.987	1.289

Frequency Table

Number of complaints from customers

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	NEVER	6	7.3	23.1	23.1
	SOMETIMES	3	3.7	11.5	34.6
	MOST OF THE TIME	4	4.9	15.4	50.0
	ALL THE TIME	13	15.9	50.0	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		
Total		82	100.0		

Customer Satisfaction					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	NEVER	9	11.0	34.6	34.6
	SOMETIMES	7	8.5	26.9	61.5
	MOST OF THE TIME	4	4.9	15.4	76.9
	ALL THE TIME	6	7.3	23.1	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		
Total		82	100.0		

Manufacturing lead time					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	NEVER	2	2.4	7.7	7.7
	SOMETIMES	10	12.2	38.5	46.2
	MOST OF THE TIME	2	2.4	7.7	53.8
	ALL THE TIME	12	14.6	46.2	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		
Total		82	100.0		

Number of on time Delivery					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	SELDOM	1	1.2	3.8	3.8
	SOMETIMES	6	7.3	23.1	26.9
	MOST OF THE TIME	14	17.1	53.8	80.8
	ALL THE TIME	5	6.1	19.2	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		
Total		82	100.0		

Product quality					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	SELDOM	1	1.2	3.8	3.8
	SOMETIMES	6	7.3	23.1	26.9
	MOST OF THE TIME	14	17.1	53.8	80.8
	ALL THE TIME	5	6.1	19.2	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		
Total		82	100.0		

Employee productivity					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	SELDOM	3	3.7	11.5	11.5
	SOMETIMES	5	6.1	19.2	30.8
	MOST OF THE TIME	10	12.2	38.5	69.2
	ALL THE TIME	8	9.8	30.8	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		
Total		82	100.0		

Job‟ satisfaction survey					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	NEVER	1	1.2	3.8	3.8
	SELDOM	2	2.4	7.7	11.5
	SOMETIMES	12	14.6	46.2	57.7
	MOST OF THE TIME	7	8.5	26.9	84.6
	ALL THE TIME	4	4.9	15.4	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		
Total		82	100.0		

Employees‟ turnover rate					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	SELDOM	6	7.3	23.1	23.1
	SOMETIMES	8	9.8	30.8	53.8
	ALL THE TIME	12	14.6	46.2	100.0
	Total	26	31.7	100.0	
Missing	System	56	68.3		
Total		82	100.0		

```
 FREQUENCIES
VARIABLES=BQ3
/ORDER=ANALYSIS.
```

Frequencies

Does your business use budgets?					
	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**	**Frequency**
Valid	NO	24	29.3	29.3	29.3
	YES	58	70.7	70.7	100.0
	TOTAL	82	100.0	100.0	

STATISTICS

How often does your business use the following types of budgets?						
	Sales budget	Production budget	Direct Materials budgets	Direct Labour budget	Manufacturing overheads budget	Cash Budget
N Valid	58	58	58	58	58	58
Missing	24	24	24	24	24	24
Mean	4.19	4.21	3.71	3.71	3.14	4.14
Std. Deviation	1.177	1.104	1.026	1.243	1.369	1.357

```
FREQUENCIES VARIABLES=BQ4.1 BQ4.2 BQ4.3 BQ4.4 BQ4.5 BQ4.6
/STATISTICS=STDDEV MEAN   /ORDER=ANALYSIS.
```

Sales budget					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	SELDOM	8	9.8	13.8	13.8
	SOMETIMES	11	13.4	19.0	32.8
	MOST OF THE TIME	1	1.2	1.7	34.5
	ALL THE TIME	38	46.3	65.5	100.0
	Total	58	70.7	100.0	
Missing	System	24	29.3		
Total		82	100.0		

Production budget					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	SELDOM	6	7.3	10.3	10.3
	SOMETIMES	12	14.6	20.7	31.0
	MOST OF THE TIME	4	4.9	6.9	37.9
	ALL THE TIME	36	43.9	62.1	100.0
	Total	58	70.7	100.0	
Missing	System	24	29.3		
Total		82	100.0		

Direct Materials budgets					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	SELDOM	9	11.0	15.5	15.5
	SOMETIMES	14	17.1	24.1	39.7
	MOST OF THE TIME	20	24.4	34.5	74.1
	ALL THE TIME	15	18.3	25.9	100.0
	Total	58	70.7	100.0	
Missing	System	24	29.3		
Total		82	100.0		

Direct Labour budget					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	NEVER	3	3.7	5.2	5.2
	SELDOM	7	8.5	12.1	17.2
	SOMETIMES	16	19.5	27.6	44.8
	MOST OF THE TIME	10	12.2	17.2	62.1
	ALL THE TIME	22	26.8	37.9	100.0
Missing	Total	58	70.7	100.0	
	System	24	29.3		
Total		82	100.0		

Manufacturing overheads budget					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	NEVER	11	13.4	19.0	19.0
	SELDOM	8	9.8	13.8	32.8
	SOMETIMES	10	12.2	17.2	50.0
	MOST OF THE TIME	20	24.4	34.5	84.5
	ALL THE TIME	9	11.0	15.5	100.0
	Total	58	70.7	100.0	
Missing	System	24	29.3		
Total		82	100.0		

Cash Budget					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	NEVER	1	1.2	1.7	1.7
	SELDOM	14	17.1	24.1	25.9
	SOMETIMES	1	1.2	1.7	27.6
	MOST OF THE TIME	2	2.4	3.4	31.0
	ALL THE TIME	40	48.8	69.0	100.0
	Total	58	70.7	100.0	
Missing	System	24	29.3		
Total		82	100.0		

```
FREQUENCIES VARIABLES=Q5.1 Q5.2
  /STATISTICS=STDDEV MEAN
/ORDER=ANALYSIS.
```

Statistics

Whether Manufacturing SMEs‟ used MATs to Improve their Business Performance		
	Balance Scorecard	Budgeting tool
	To improve business performance	To improve business performance
N Valid	26	58
Missing	56	24
Mean	1.12	1.17
Std. Deviation	0.326	0.381

Whether Manufacturing SMEs‟ used the Balanced scorecard to Improve their Business Performance					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	23	28.0	88.5	88.5
	No	3	3.7	11.5	100.0
	Total	26	31.7	100.0	
Missing System		56	68.3		
Total		82	100.0		

Whether Manufacturing SMEs‟ used the budgeting tools to Improve their Business Performance					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	48	58.5	82.8	82.8
	No	10	12.2	17.2	100.0
	Total	26	58	70.7	100.0
Missing	System	56	24	29.3	
Total		82	82	100.0	

```
FREQUENCIES VARIABLES=Q6.1 Q6.2
  /STATISTICS=STDDEV MEAN
/ORDER=ANALYSIS.
```

Perceptions on the effectiveness of management accounting tools used by manufacturing SMEs		
	Balanced scorecard	Budgeting tools
N Valid	26	58
Missing	56	24
Mean	4.31	3.69
Std. Deviation	1.158	1.173

STATISTICS

How often does your business use the following types of budgets?						
	Sales Gender	In which ranges of age do you fall under?	Direct What is your position in the organisation ?	What qualification do you possess?	Manufacturing How long have you been working for this company?	How many employees does the company currently have employees?
N Valid	82	82	82	82	82	82
Missing	0	0	0	0	0	0

Frequency Table

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	30	36.6	36.6	36.6
	Female	52	63.4	63.4	100.0
Total		82	100.0	100.0	

In which range of age do you fall under?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 21years	2	2.4	2.4	2.4
	21-30 years	9	11.0	11.0	13.4
	31-40 years	22	26.8	26.8	40.2
	41-50years	36	43.9	43.9	84.1
	51-60years	11	13.4	13.4	97.6
	60yearsmore	2	2.4	2.4	100.0
Total		82	82	100.0	

What is your position in the organisation?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Owner	31	37.8	37.8	37.8
	Manager	43	52.4	52.4	90.2
	Accountant	8	9.8	9.8	100.0
Total		Total	82	100.0	

What qualification do you possess?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Did not complete matric	5	6.1	6.1	6.1
	Matric	34	41.5	41.5	47.6
	National Certificate	10	12.2	12.2	59.8
	Diploma	19	23.2	23.2	82.9
	Degree	12	14.6	14.6	97.6
	Post Graduate Degree	2	2.4	2.4	100.0
Total		82	82	100.0	

How long have you been working for this company?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1year	11	13.4	13.4	13.4
	1-5years	15	18.3	18.3	31.7
	6-10years	40	48.8	48.8	80.5
	More than 10 years	16	19.5	19.5	100.0
Total		82	82	100.0	

How many employees does the company currently have employees?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11 – 20 employees	20	24.4	24.4	24.4
	21 – 50 employees	22	26.8	26.8	51.2
	51 – 250 employees	40	48.8	48.8	100.0
Total		82	82	100.0	