

# THE USAGE OF MANAGEMENT ACCOUNTING TOOLS BY SMALL AND MEDIUM ENTERPRISES IN CAPE METROPOLE, SOUTH AFRICA

by

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## DECLARATION

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#### ABSTRACT

This study sought to determine the extent to which Small and Medium Enterprises (SMEs) in the Cape Metropole use Management Accounting Tools (MATs), namely budgeting tools, Performance Measurement Tools (PMTs) and pricing tools, which are considered critical for the survival of these entities. Specifically, the study aimed to determine the types of MATs used by SMEs; the purpose for which MATs are used by SMEs; the perception of SMEs regarding the effectiveness of these tools and the possible factors that could inhibit SMEs from using the tools. The study was motivated by a lack of research on the usage of MATs by SMEs. Data was collected by means of a questionnaire that comprised closed-ended questions.

The findings of the study reveal that most of the sampled SMEs used, albeit to some extent, the three MATs that were investigated in this research. The findings also suggest that the sampled SMEs used MATs mostly for the purposes of measuring and monitoring the performance of their businesses. With regard to the perceived effectiveness of the MATs, the findings revealed that the MATs investigated were perceived to be moderately effective, with PMTs being perceived to be more effective, followed by pricing tools, then budgeting tools.

Concerning the factors that possibly inhibit SMEs in the Cape Metropole from using MATs, the findings suggest that a lack of top management support as well as qualified personnel were the main inhibiting factors.

This study does not only contribute significantly to the literature on the usage MATs by filling in the gap in the literature, it also provides invaluable insights on the usage of these tools. These insights could be used to inform future endeavours of the Government when developing interventions meant to avert the high failure rates of these entities. The findings may also assist SMEs to gauge and review their usage of MATs with a view to optimising the benefits derived from these tools, as well as overcoming the factors that inhibit them from using the tools in the first place.

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# DEDICATION

This Thesis is dedicated firstly to God Almighty, and then to my husband Mr Elvis Oji and all my loved

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# **TABLE OF CONTENTS**

DECLARATION i
ABSTRACTii
ACKNOWLEDGEMENTSiii
DEDICATIONiv
CHAPTER ONE: BACKGROUND AND PROBLEM STATEMENT
1.1 BACKGROUND
1.2 Problem statement 4
1.3 Purpose Statement
1.4 Research question; sub-questions and objectives
1.4.1 Research question
1.4.2 Sub-questions, research methods and objectives6
1.5 IMPORTANCE OF THE STUDY
1.6 RESEARCH DESIGN
1.6.1 The empirical study7
1.6.2 Sampling method
1.6.3 Data collection, analysis and interpretation8
1.7 ETHICAL CONSIDERATION
1.8 DELINEATION OF THE RESEARCH9
1.9 THE SIGNIFICANCE OF THE STUDY
1.10 LIMITATIONS AND CONSTRAINTS9
1.11 CONTRIBUTION OF THE RESEARCH 10
CHAPTER TWO:LITERATURE REVIEW
2.1 INTRODUCTION 11
2.2 DEFINITION AND DESCRIPTION OF MANAGEMENT ACCOUNTING AND MATS 11

2.2.1 Definition of Management Accounting	11
2.2.2 Budgeting tools	12
2.2.3 Performance Measurement Tools (PMTs)	13
2.2.4 Pricing tools	15
2.3 DEFINITION OF SMES AND THEIR IMPORTANCE TO THE SOUTH AFRICAN ECONOMY	16
2.3.1 Definition of SMEs	17
2.3.2 Importance of SMEs	18
2.4 PRIOR STUDIES ON THE TYPES OF MANAGEMENT ACCOUNTING TOOLS EMPLOYED BY SMES	19
2.4.1 Budgets	19
2.4.2 Performance Measurement Tools (PMTs)	23
2.4.3 Pricing Tools	27
2.5 PRIOR STUDIES ON THE PURPOSE FOR WHICH MATS ARE USED	33
2.6 PRIOR STUDIES ON PERCEPTIONS OF SMES REGARDING THE EFFECTIVENESS OFMATS EMPLOYED	
2.7 PRIOR STUDIES ON THE FACTORS THAT INHIBIT SMES FROM USING MATS	39
2.8 GAPS IDENTIFIED IN THE REVIEW OF THE PRIOR LITERATURE	42
2.9 SUMMARY AND CONCLUSION	43
CHAPTER THREE:RESEARCH DESIGN AND METHODOLOGY	46
3.1 INTRODUCTION	46
3.2 POSITIVIST RESEARCH PARADIGM	47
3.3 JUSTIFICATION FOR THE QUESTIONNAIRE SURVEY METHODOLOGY	47
3.4 RESEARCH POPULATION AND SAMPLING TECHNIQUE	48
3.4.1 Research population	48
3.4.2 Sampling technique	48

3.5 DESIGN	I OF THE QUESTIONNAIRE	48
3.5.1 Gen	eral description of the questionnaire design	48
3.5.2 Des	cription of the specific sections of the questionnaire	49
3.5.2.1	Section One: Management accounting tools	49
3.5.2.2	Section Two: Management accounting reports	52
3.5.2.3	Section Three: Perception of the effectiveness of management accounting	52
tools us	ed	52
	Section Four: Factors that inhibit preparation of management accounting	52
3.5.2.5	Section Five: Respondent and business profile	53
3.6 PILOT S	STUDY	53
3.7 DATA C	OLLECTION PROCESS	54
3.8 DESCR	IPTION OF DATA ANALYSIS METHODS ADOPTED	54
3.8.1 Des	criptive statistics	55
3.9 MEASU	RES TO ENSURE RELIABILITY AND VALIDITY	55
3.9.1 Reli	ability of the research instrument	55
3.9.2 Valio	dity of the research instrument	57
3.9.2.1	nternal validity	57
3.9.2.2 (	Construct validity	57
3.9.2.3 (	Content validity	57
3.9.2.4 E	xternal validity	58
3.10 LIMITA	TIONS OF THE QUESTIONNAIRE SURVEY	58
3.11 Ethical	considerations	60
3.11.1 Info	ormed Consent	60
3.11.2 Co	nfidentiality and anonymity	60

3.12 SUMMARY	60
CHAPTER FOUR: ANALYSIS AND DISCUSSION OF RESULTS	62
4.1 INTRODUCTION	62
4.2 RESTATEMENT OF RESEARCH OBJECTIVES	62
4.3 RESPONSE RATE	63
4.4 RESPONDENTS' PERSONAL AND THEIR BUSINESSES' PROFILE	63
4.4.1 Respondents' position in the business	64
4.4.2 Respondents' years of experience	65
4.4.3 Respondents'highest level of education	65
4.4.4 Whether respondents' highest level of education was accounting related	66
4.4.5 Respondents' business industry	67
4.4.6 Respondents' business number of employees	68
4.5 TYPES OF MATs USED BY SMES	69
4.5.1 Usage of budgets by SMEs	69
4.5.2 Frequency of usage of various types of budgets by SMEs	70
4.5.3 Frequency of usage of various methods of budgeting by SMEs	72
4.5.4 Usage of PMTs by SMEs	73
4.5.5 Frequency of usage of different types of performance measurement tools	74
by SMEs	74
4.5.6 Usage of pricing tools by SMEs	77
4.5.7 Frequency of usage of various types of pricing tools by SMEs	77
4.6 PURPOSE FOR WHICH MATS ARE USED BY SMES	80
4.6.1 Preparation of budgetary, performance measurement and pricing reports	80
4.6.2 Frequency of usage of management accounting reports for various purposes	81
4.7 PERCEVED EFFECTIVENESS OF THE MATs USED BY SMEs	84

4.8 FACTORS THAT INHIBIT THE USAGE OF MATs	85
4.8.1 Factors that inhibit the respondents from using budgetary tools	87
4.8.2 Factors that inhibit the respondents from using PMTs	87
4.8.3 Factors that inhibit the respondents from using of pricing tools	88
4.9 SUMMARY OF THE CHAPTER	88
CHAPTER FIVE:SUMMARY AND CONCLUSIONS	91
5.1 INTRODUCTION	91
5.2 CHAPTER 1 - RESEARCH PROBLEM AND OBJECTIVES	91
5.3 CHAPTER2-SUMMARY AND CONCLUSION OF REVIEW OF PRIOR STUDIES ON USE OF MATS	
5.4 CHAPTER 3- SUMMARY AND CONCLUSION OFRESEARCH DESIGN AND METHODOLOGY	93
5.5 CHAPTER 4-SUMMARY OF ANALYSIS AND DISCUSSION OF RESULTS	93
5.5.1 Population, response rate, respondents' and businesses' profiles	94
5.5.2 Types of MATs used by SMEs	94
5.5.2.1 Budgets and budgeting methods used by SMEs	94
5.5.2.2 Performance measurement tools	95
5.5.2.3 Pricing tools	95
5.5.3 Purpose for which MATs are used by SMEs	96
5.5.4 Perceived effectiveness of the MATs currently used by SMEs	96
5.5.5 Factors that inhibit SMEs from using MATs	96
5.6 CONTRIBUTION AND SIGNIFICANCE OF THE STUDY	96
5.6.1 Contribution of the study	96
5.6.2 Significance of the study	97
5.7 LIMITATIONS OF THE STUDY	98
5.8 SUGGESTIONS FOR FURTHER STUDIES	99

BIBLIOGRAPHY	<sup>′</sup>	101

# LIST OF FIGURES

Figure 4.1: Respondents' position in the business	64
Figure 4.2: Respondents' years of experience	65
Figure 4.3: Respondents' highest level of education	66
Figure 4.4: Respondents accounting related qualifications	67
Figure 4.5: Respondents' business industry	68
Figure 4.6: Respondents' number of employees	69
Figure 4.7: Respondents' usage of budgets	70
Figure 4.8: Usage of performance measurement tools	73
Figure 4.9: Usage of pricing tools/strategies	77
Figure 4.10: Preparation of management accounting reports	81

# LIST OF TABLES

Table 1.1: Research sub question, research method, Research objectives	6
Table 2.1: Classification of small businesses in South Africa	17
Table 2.2: Classification of SMEs for the purpose of this study	18
Table 3.1: Cronbach Alpha	56
Table 4.1 Response rate	63
Table 4.2: How often various types of budgets were used by SMEs	71
Table 4.3: How often various types of budgeting methods were used by SMEs	72
Table 4.4: How often various performance measurement tools were used by SMEs	75
Table 4.5: How often various pricing tools/strategies were used by SMEs	78
Table 4.6: How often management accounting reports were used for various	
purposes by SMEs	82
Table 4.7: Perceived effectiveness of MATs usedby SMEs	84

# Table 4.8: Factors that inhibit the usage of MATs

# **APPENDICES:**

Appendix A: Consent Letter	110
Appendix B: Questionnaire	111
Appendix C: Cronbach Alpha Coefficient Test	118
Appendix D: Frequency Distribution	132

86

# GLOSSARY

Abbreviatio	n Definitions/Explanations
CIMA	Chartered Institute of Management Accountants
CSM	Cranfield School of Management
OECD	Organisation for Economic Co-operation and Development
FMCG	Fast Moving Consumer Goods
BSC	Balanced Score Card
MATs	Management Accounting Tools
MAP	Management Accounting Practices
PMTs	Performance Measurement Tools
SMEs	Small and Medium Enterprises
ZBB	Zero Based Budgeting

# CHAPTER ONE BACKGROUND AND PROBLEM STATEMENT

## **1.1 BACKGROUND**

Given the high unemployment rate in South Africa, Small and Medium Enterprises (SMEs) have become of paramount importance because they create employment opportunities and impart entrepreneurial skills, both of which are critical for the alleviation of poverty and are key drivers of economic growth (SEDA, 2012; Fatoki, 2012). In South Africa, SMEs account for about 70% of the labour force in the private sector as well as for an estimated 80% of the newly created jobs (Ramukumba, 2014; Fatoki & David, 2010; Tuner, Varghese & Walker, 2008:15).

Notwithstanding the importance of SMEs in South Africa, research evidence suggests that most of these entities do not survive for more than three years (Bruwer, 2010: 2). In fact, 80% of all SMEs in South Africa fail within the first five years of operation, a failure rate considered to be one of the highest in the world (Phenya, 2011:1; Mbogo, 2011:110). To avert the high failure rate of SMEs, the Government has initiated various support measures aimed at developing and promoting SMEs (SBP Alert, 2013; Falkena, Abedian, Blottnitz, Coovadia, Davel, Madungandaba, Masilela & Rees, 2001:13). Key among the measures include the creation of the National Skills Authority, which introduced the National Skills Development Strategy meant to stimulate and support skills development, given that vital skills were perceived to be lacking among SMEs (SEDA, 2012; South Africa, 1998).

Despite the introduction of the National Skills Development Strategy, prior research has indicated that most decision-makers of SMEs lack critical business skills, particularly the management accounting skills required for effective management of their businesses (Tlhomola, 2010; Nandan, 2010). This is because most of the decision-makers venture into business out of necessity rather than opportunity, given the lack of job opportunities in South Africa (Turner et. al., 2008:17). As a result, most SMEs are managed by people who are functionally illiterate, and/or who typically lack management accounting skills (Shaku, 2011:4).

Without management accounting skills, most decision-makers of SMEs in South Africa largely rely on their gut feeling, rules of thumb, and personal whims, as well as other trial and error techniques, which are inappropriate especially in the wake of intense competition (Gape, 2007). Given the crude techniques employed by SMEs' decision-makers, it is not surprising that these entities continue to fail at an alarming rate. The persistent failure of SMEs suggests that the National Skills Development Strategy introduced by the Government is either ineffective or inappropriate and that more research is needed to inform the strategy (Rajaram, 2008:10).

Unlike the crude techniques employed by most decision-makers of SMEs, Management Accounting Tools (MATs) provide tools for planning (budgeting tools), monitoring and evaluating the performance of businesses (PMTs) (Proctor, 2009). In addition, MATs provide tools that are useful for strategic decisions such as pricing decisions (pricing tools), to mention but a few (Latif & Alnawaiseh, 2013).

Although management accounting provides many useful tools for large and small businesses alike, only budgeting tools, PMTs and pricing tools are the focus of this study because they are extensively used by the large companies but also are largely ignored by SMEs (Nandan, 2010; CIMA, 2009). Besides, it is not practically feasible to investigate all the MATs that could possibly be used by SMEs in a single study. The next section elaborates on the benefits of the three MATs that are the focus of this study.

Budgets provide future-oriented information that facilitates control of business performance by highlighting areas in which actual performance deviates from the budgeted performance, so that an appropriate corrective action can be taken (Anohene, 2011). In addition, these tools facilitate the coordination and alignment of different departments within a business towards common objectives (John & Ngoasong, 2008). Furthermore, budgets provide a useful yardstick for evaluating employee performance and for rewarding good results to motivate employees. Most importantly, budgets are essential in writing a business plan (Abogun & Fagbemi, 2012). This is particularly important for SMEs because these entities, unlike their larger counterparts, need to present convincing business plans when raising capital but typically have little or no success track record and are thus perceived to be high-risk ventures by the providers of capital. Without a successful track record, the decision-makers of SMEs are required to demonstrate convincingly that their business has a clear strategy and a realistic plan to make profit (Abogun & Fagbemi, 2012). A coherent and realistic budget is therefore an essential component of an SME's business plan for raising capital (Olatunji, 2013).

PMTs, such as the Balanced Score Card (BSC), provide businesses with a holistic view of their operations and dynamic information that enables them to establish their current performance and to continuously monitor their progress over time (Salem, Hasnan & Osman, 2012). In addition, these tools expose a business's weaknesses, as well as opportunities for improvement, which are then used to review and clarify objectives and priorities. As a result, a business is able to understand its internal and external contexts, which can compel it to adopt better strategies for improving its management processes as well as its business performance in general. Besides, balanced and multi-dimension PMTs can capture non-financial factors such as customer loyalty, employee satisfaction, internal processes and innovation, which are the real drivers of value within modern businesses that make their future performance predictable (Farooq & Hussain, 2011).

Pricing tools provide businesses with vital information on the appropriate pricing strategy to employ to not only cover their costs but also to compete effectively and generate revenue for growth (Singh, 2013). Specifically, sound pricing tools are vital for businesses to ensure viability (prices that cover costs), and affordability for their customers (to ensure adequate demand), as well as competitiveness when facing fierce competition (Singh, 2013).

Notwithstanding the afore-mentioned potential benefits of MATs to all types of businesses, only a few studies have been conducted to determine the extent to which SMEs employ these tools (Nandan, 2010:65). Some prior studies have indicated that many SMEs no not prepare budgets, and those that do, neither continuously update the budgets nor monitor their progress against the budgets (CIMA, 2009).

By contrast, other studies have revealed a high uptake of budgets by SMEs (Mahfar & Omar, 2004; Uyar, 2010; Ahmad, 2012). However, these studies have indicated a widespread dissatisfaction among SMEs with the budgets once adopted (Uyar 2010; Ahmad, 2012). Specifically, budgets have been criticised as an impediment to optimal allocation of resources as they are perceived to encourage myopic decision-making and other dysfunctional budgeting tactics. In addition, the budgeting process has been perceived to be too time consuming, too costly, too distorted by tactics employed and too focused on cost control (Abogun & Fagbemi, 2011). More importantly, the process has been perceived to be divorced from the overall strategic direction of businesses. The foregoing criticisms raise questions regarding the

effectiveness of the budgets employed by SMEs and whether the budgets serve their intended purpose (Alleyne & Marshall, 2011).

Yet other prior studies have documented a high uptake of financial performance measures by SMEs (CIMA, 2009). However, the uptake of non-financial performance measures, except the ones related to customers, has remained dismally low among these entities (Ahmad, 2012). Among reasons provided for the low uptake of non-financial performance measures is the inadequacy of the information systems of SMEs in providing these measures, and the complexity of the performance measures which render them incomprehensible and unusable, as well as the general perception that these measures are not as important as the financial ones (Ahmad, 2012; Mabesele, 2009).

Some prior studies have also revealed that most SMEs do not optimise on their prices (Gape 2007; Carson, Gilmore, Cummins, O'Donnell & Grant, 1998:74). This is because these entities lack a technical approach to pricing and are more likely to take pricing decisions in a haphazard or chaotic way as opposed to an orderly, sequential and structured approach (Gape, 2007). Accordingly, SMEs' decision-makers over-rely on cost-plus pricing tools but are unable to accurately determine the unit cost of their products in the first place (Indounas, 2006). As a result, they tend to under-price their products and are unable to make a profit, a situation which forces some of these entities to close down. For those that survive, they fall into a trap of pricing at whatever price buyers are willing to pay, or at a price dictated by competitors rather than at a price that reflects the true value of the product (Singh, 2013). Worse still, most of the decision-makers of SMEs tend to rely on haphazard pricing techniques such as their gut-feeling and other thumb-sucking techniques that eventually lead to poor pricing decisions (Gape, 2007).

#### **1.2 Problem statement**

The problem to be investigated in this research study is that SMEs particularly those in FMCGs sector in South Africa are perceived to be failing partly due to a lack of or ineffective use of MATs such as budgets, PMTs and pricing tools. Given that most decision-makers of SMEs in South Africa lack conventional management accounting skills, they largely rely on unconventional techniques such as their gut-feeling, rules of thumb, personal whims, as well as

trial-and-error techniques when making their budgeting, performance measurement and pricing decisions, which are inappropriate in the modern competitive business environment. As a result, most of the decisions made by SMEs tend to be haphazard, chaotic and ineffective as they are not informed by a well-thought-out, orderly, sequential and structured approach of MATs.

Many reasons have been provided to explain the high failure rate of SMEs. Notable among these reasons is their inability to make use of essential business management tools such as budgets, PMTs and pricing tools (Ahmad, 2012:18). Many SMEs fail to prepare budgets; those that do fail to continuously update their budgets and monitor their progress against the budgets, or are dissatisfied by the ineffectiveness of the budgets developed or the budgeting process (Ahmad, 2012:18). In addition, most SMEs focus only on financial performance measures but ignore the more strategic non-financial measures. Furthermore, some SMEs do employ inappropriate pricing techniques that do not secure optimum prices for their products (Hudson, Smart & Bourne, 2001).

Despite the importance of SMEs in South Africa and their relatively high failure rate, little research has been conducted in the country to determine the extent to which these entities employ budgets, PMTs and pricing tools (Nandan, 2010). Given the many potential benefits that SMEs can derive from using these tools, it is imperative that their usage of these tools be investigated.

#### **1.3 Purpose Statement**

The main purpose of this study is to determine the extent to which decision-makers of SMEs in the Fast Moving Consumer Goods (FMCG) sector in the Cape Metropole employ MATs to manage their businesses. Specifically, this study will determine the extent to which decision-makers of SMEs employ budgets, PMTs and pricing tools, as these tools are considered to be critical for SMEs' survival (CIMA, 2009). The FMCG sector was selected because it is one of the sectors in South Africa with the highest number of SMEs (Steenkamp, 2010:26).

# 1.4 Research question; sub-questions and objectives

# **1.4.1 Research question:**

The research question for this study is:

To what extent do the decision-makers of Small and Medium Enterprises in the Fast Moving Consumer Goods sector in the Cape Metropole employ Management Accounting Tools for decision-making in their businesses?

## 1.4.2 Sub-questions, research methods and objectives:

The research sub-questions and objectives together with the method of investigating each objective are presented schematically as follows:

Research sub-questions	Research Methods	Research Objectives
What types of MATs are employed by SMEs?	Questionnaire underpinned by descriptive analysis and literature review.	To determine the types of MATs employed by SMEs.
For what purposes are MATs used by SMEs?	Questionnaire underpinned by descriptive analysis and literature review.	To determine the purposes for which MATs are used by SMEs.
What are the perceptions of decision-makers of SMEs regarding the effectiveness of the MATs currently employed by these entities?	Questionnaire underpinned by descriptive analysis and literature review.	To determine the perceptions of decision-makers of SMEs regarding the effectiveness of MATs currently employed by these entities.
What factors inhibit SMEs from using MATs?	Questionnaire underpinned by descriptive analysis and literature review.	To determine the factors that inhibit SMEs from using MATs.

Table 1.1: Research sub-objectives, research Methods and research Objectives

#### **1.5 IMPORTANCE OF THE STUDY**

Notwithstanding the high failure rate of SMEs in South Africa and the growing research evidence from other countries that partly attributes the failure rate of SMEs to a lack of or ineffective use of MATs (Mbogo, 2011), only a limited number of studies have been conducted on the usage of MATs by SMEs in South Africa. As a result, little is understood about the extent to which SMEs in the country use these tools to manage their businesses. It is thus important that this gap be filled, if only to avert the high failure rate of SMEs in the country.

Usage of MATs can benefit SMEs in the various ways highlighted above (See Section 1.2). Without research such as this one, it would be impossible for institutions such as the Government to gauge how well SMEs are using these tools which are critical for the survival of these entities. A study such as this one is therefore important to inform the Government's interventions that are meant to ensure that SMEs do not only survive, but that they also thrive.

This study exposes the decision-makers of SMEs to the benefits of MATs adopted by their peers and even larger competitors. This should enable them to benchmark their own businesses' usage of these tools against the best practices and possibly adopt the best practices or improve on their current usage of these tools. Without a study such as this one, the decision-makers can continue using their own unconventional techniques for managing their businesses to their peril.

#### **1.6 RESEARCH DESIGN**

#### 1.6.1 The empirical study

Given that the main purpose of this study is to determine the extent to which the decisionmakers of SMEs in the FMCG sector employ MATs, a positivist approach was employed. This approach was selected because it is based on the assumption that the reality is objectively given and is measurable using methods that are independent of the researcher and the research instruments. Therefore, knowledge resulting from positivist research is deemed objective and quantifiable, which falls under the ambit of quantitative research (Mabesele, 2009:5-6; Ahmad, 2012: 23; Bruwer, 2010:4).

## 1.6.2 Sampling method

Purposive sampling technique was employed to select 100 SMEs in the Cape Metropole. This technique was deemed suitable for this study because it involves a sample being drawn from that part of the population which contains the characteristics or the attributes of the population that serve the purpose of a study (De Vos, Strydom, Fouche & Delport, 2011:232). Besides, the technique was used because it focuses on a small sample and has been widely used by other researchers (Ndwiga, 2011; Bruwer, 2010:30).

#### 1.6.3 Data collection, analysis and interpretation

Bearing in mind that the researcher seeks to gather objective information relating to the usage of MATs by SMEs in the Cape Metropole, primary data was collected from owners, managers or accountants of the selected SMEs by means of a self-administered, closed-ended questionnaire. This survey instrument is pragmatic when a large volume of information is to be collected from a large number of respondents in a short period of time and at a relatively low cost (Brynard & Hanekom, 2006). Besides, questionnaire surveys are useful for collecting data from a sample in order to conduct statistical analyses and generalise results to a population (Brynard & Hanekom, 2006). The quantitative data collected was analysed and interpreted using descriptive statistics to enhance the validity of the findings.

The questionnaire was divided into five sections to ensure clarity. Section one focused on the types of MATs employed. Section two dealt with the purpose for which MATs are used by SMEs. Section three focused on the respondents' perception on the effectiveness of MATs currently employed by their businesses. Section four was designed to collect data on the factors that could inhibit the use of MATs and finally section five was aimed at obtaining respondents' business profile.

#### **1.7 ETHICAL CONSIDERATION**

Bearing in mind that human participants would be involved in this study, an approval to conduct this research was obtained from the Cape Peninsula University of Technology's Ethics committee before commencing data collection. The ethics committee requires that the respondents of such a study be protected from any potential negative repercussion that may arise as a result of participating in the research.

#### **1.8 DELINEATION OF THE RESEARCH**

This study was limited to SMEs that employ between six and 100 employees in the FMCG sector and that are located in the Cape Metropole. This was because the businesses with less than five employees are less likely to adopt MATs (Armitage & Webb, 2014). Only owners, managers, and accountants were deemed to be the decisions-makers of the SMEs. In addition, the study only analysed the usage of three MATs, namely budgets, PMTs and pricing tools as these are the tools that are typically employed by SMEs.

#### **1.9 THE SIGNIFICANCE OF THE STUDY**

The findings of this study are of significance to the decision-makers of SMEs as they will be enlightened on the best practice in the usage of MATS and the types of MATs that are vital for their businesses' survival that have been adopted by their competitors. The decision-makers will also be enlightened on various uses of MATs, the MATs perceived to be effective and the factors that inhibit SMEs from using these tools. This should enable them to evaluate their own usage of the MATs and decide whether to improve, change or continue with their current usage. The decision-makers will also benefit from recommendations made in this study on various ways to overcome the factors that inhibit the uptake of MATs by SMEs. The South African Government, whose initiatives to promote SMEs are widely perceived to be ineffective, may also draw on the findings of this research to inform its future intervention strategies, particularly relating to the National Skills Development Strategy meant to avert the high failure rate of these entities.

## **1.10 LIMITATIONS AND CONSTRAINTS**

Given that only a few studies have been conducted on the usage of MATs by SMEs, this study was informed by limited prior literature. In addition, the study only focused on SMEs from the FMCG sector located in the Cape Metropole. Accordingly, the findings obtained may not be applicable to all SMEs in South Africa.

Due to the busy schedule of the targeted respondents, it was difficult to get them to answer the questionnaire and some of them were reluctant to answer some questions. To increase the response rate, the respondents were visited severally to encourage them to participate in the survey and to respond to all the questions in the questionnaire. Given the well-documented

tendency of respondents to complete questionnaires in a biased manner, the respondents of this study were encouraged to be truthful when completing the questionnaire.

One of the well-documented weaknesses of a questionnaire survey method is a low response rate which leads to a non-response bias (De Vos, et al., 2011). This undermines the generalisability of the results to the entire population. Apart from visiting respondents severally and encouraging them to participate in the survey, the risk of a low response rate was mitigated by drawing up a relatively short questionnaire comprising closed-ended questions. Given that the researcher was in most cases asked to drop off the questionnaire without meeting the respondents face to face, an opportunity was missed to engage with the respondents in order to explain or clarify ambiguous terms and concepts, which could have undermined the response rate (De Vos, et al., 2011). To mitigate this problem, the researcher made an attempt to meet face to face with the respondents.

Considering the sensitive nature of the information elicited in this research as well as the risk involved in disclosing it, one can justify the unwillingness of some respondents to partake in the study (De Vos, et al., 2011). To overcome this limitation, the researcher reassured the respondents of the confidentiality of the survey when distributing the questionnaire to them.

#### **1.11 CONTRIBUTION OF THE RESEARCH**

This study was intended to fill a gap in research on the usage of MATs by SMEs in South Africa. Although many studies have been conducted on the usage of these tools in other countries, little research has been conducted on the same in South Africa (Ahmad, 2012). The few studies that investigated the usage of PMTs in South Africa did not focus on the FMCG sector, nor did they investigate the usage of budgets or even pricing tools (Mabesele, 2009). Hence, the findings of this research will contribute to the debate on the usage of MATs and their application in the unique context of SMEs. The next section discusses the literature review of prior studies on the usage of the three MATs that are the focus of this study.

#### CHAPTER TWO

#### LITERATURE REVIEW

### **2.1 INTRODUCTION**

The main aim of this chapter is to review the prior literature on the usage of Management Accounting Tools (MATs) by Small and Medium Enterprises (SMEs). By so doing, the chapter identifies gaps in the literature with regard to the types of MATs that are used by SMEs, the purpose for which the tools are used, the perceptions of the decision-makers of SMEs regarding the effectiveness of the tools used, and factors that inhibit SMEs from using these tools.

#### 2.2 DEFINITION AND DESCRIPTION OF MANAGEMENT ACCOUNTING AND MATS

This chapter proceeds with the definition of the term management accounting as well as the three MATs that are the subject of this study; namely budgeting tools, performance measurement tools and pricing tools, in Section 2.2. This is followed by the definition of SMEs and a discussion of their importance to the South African economy in Section 2.3. Section 2.4 reviews prior studies on the types of MATs employed by SMEs. This is followed by a review of prior studies on the purpose for which MATs are used in Section 2.5. Section 2.6 reviews prior studies on perceptions of SMEs regarding the effectiveness of the MATs employed by these entities. The chapter then reviews the prior studies on factors that inhibit SMEs from using MATs in Section 2.7. Section 2.8 presents the gaps identified in the review of the prior literature as well as the research questions that have remained unanswered. The summary and conclusion of this chapter is then provided in Section 2.9.

## 2.2.1 Definition of Management Accounting

According to the Institute of Management Accounting (IMA) (2008:1) management accounting is defined as:

... a profession that involves partnering in the management decision- making, devising planning and performance measurement systems, and providing expertise in financial reporting and control to assist management in the formulation and implementation of an organisation's strategy.

On the other hand, the International Federation of Accountants (IFAC) (1989:99) defines management accounting as:

... the process of identification, measurement, accumulation, analysis, preparation, interpretation, and communication of information used by management to plan, evaluate and control within an entity and to assure appropriate use of and accountability for its resources.

The above definitions suggest that MATs are primarily used for planning, measuring performance and controlling operations of entities, and assist the management of an entity to formulate and implement strategies. For entities to plan, measure, control their performance and implement their strategies, they employ MATs such as budgeting tools, PMTs and pricing tools which are defined below.

#### 2.2.2 Budgeting tools

A budget is a quantitative expression of a plan for a defined period of time meant to attain a certain objective (Anohene, 2011:24: Wildavsky, 2002:18). It expresses strategic and operating plans of business units, organisations, activities or events in measurable terms. Budgets provide a method of allocating scarce resources within an organisation (Drury, 2004). They also enable the management of an organisation to monitor and control operations by setting standards expected and addressing any deviations from the set standards (Hanson & Mowen, 2006; Olatunji, 2013:1131). In addition, budgets are useful in promoting forward thinking by managers, communicating an entity's goals to employees and evaluating their performance (Voigt, 2010). Accordingly, budgets can be used to motivate employees to achieve set targets, co-ordinate different departments within an entity and align them towards shared objectives.

The types of budgets employed in an entity depend on the nature of business it is engaged in (Badu, 2011:17). For instance, production budgets which are relevant to manufacturing businesses are not relevant to retail businesses. However, there are certain types of budgets that are universally relevant to all types of businesses irrespective of the nature of their activities (Hanson & Mowen, 2006). For instance operating budgets, which deal with recurrent income and expenses of a business such as sales budgets, cash budgets, marketing budgets, and personnel budgets are universally relevant, and are briefly described below.

Sales budgets are detailed schedules of expected sales in monetary terms and units for the budget period (usually one year), whereas cash budgets are projected short-term cash inflows

and outflows of an entity, for the budget period (Badu, 2011:17-18). Marketing budgets refer to estimated projection of costs required to promote sales of a business' products (Suttle, 2014). A marketing budget will typically include all promotional costs, such as marketing communication on a website, advertising and public relations costs, as well as the costs of employing marketing staff and utilising office space for marketing purposes. Personnel budgets refer to projections in terms of cost and number of personnel required by an entity in a particular budget period (Dodson, 2008:309).

Another universally applicable budget is the capital budget which refers to a long-term investment plan that relates to durable items such as new machinery, replacement machinery, new plants, new products, and research development projects (Hanson & Bowen, 2006; Maroyi & Van der Poll, 2012:9280).

As opposed to budgets, budgeting is the process by which an entity creates and manages its budgets (John & Ngoasong, 2007). Most notable among the budgeting processes commonly employed are fixed budgeting, flexible budgeting, zero-based budgeting and incremental budgeting (Anohene, 2011:25). Fixed budgeting is a process or method of budgeting whereby the budget remains static in the budget period irrespective of the level of activity (such as sales volume) (CIMA, 2008:6). By contrast, flexible budgeting is a process or method of budgeting whereby a budget is adjusted or flexed according to changes in the level of activity (Anohene, 2011:26).

Zero-based budgeting is a method of budgeting which requires that all expenses be justified for each new period (Badu, 2011:15). This budgeting approach starts from a 'zero base' as every function within an entity is analysed for its needs and costs. In short, according to this method, no amounts are carried over from prior years, as every budget is prepared afresh ('from scratch'). By contrast, incremental budgeting is a method based on which a new budget is prepared by making slight changes on the preceding period's budget or on the actual results (Kavanagh, 2012; Badu, 2011:15).

#### 2.2.3 Performance Measurement Tools (PMTs)

Larsson and Kinnunen (2007) describe Performance Measurement (PM) as the process of measuring the degree to which a business achieves its goals and objectives. PM has also been defined as the process of quantifying the efficiency and effectiveness of business activities or courses of action (Naude, 2007). In essence, PM evaluates how effectively and efficiently a

business pursues its objectives. According to Drury (2004), PM tools are used to evaluate performance of an entity on an on-going basis. Therefore PM should be a recurring event, the results of which ought to be benchmarked against the prior period's performance to determine the emerging trend and improve performance (Naude, 2007).

Traditional PM, which focuses mainly on financial measures, has been criticised as these measures are historical and short-term oriented as opposed to the non-financial performance measures which are forward-looking, long-term and thus are of more strategic value (Mabesele, 2009:22). Since the mid-1980s, different PM frameworks have been developed to cater for the ever increasing need of non-financial measures (Kaplan & Norton, 1992). One such framework is the Balanced Scorecard (BSC) which enables an entity's management to look at the performance of a business from four perspectives, namely financial perspective, customer perspective, internal processes perspective, as well as innovation and learning perspective (Farooq & Hussain, 2011:38).

The financial perspective evaluates the financial performance of a business, and includes measures such as cash flows, sales growth, operating income and return on equity (Mackay, 2004:13; Mabesele, 2009:22). It addresses the question, "How do investors see the entity?" The customers' perspective emphasises satisfying the needs of customers by encouraging the identification of measures that answer the question, "How do customers see the entity?" (Kaplan & Norton, 1992:71-79). It includes measures such as percentage of repeat customers, customers' satisfaction surveys and number of customers' complaints.

The internal process perspective focuses on all activities and key processes required in order for a business to excel at providing the value expected by customers (Farooq & Hussain, 2011:38). It encourages identification of measures that answer the question, "What must an entity excel at?". Relevant measures for this perspective include response time, delivery time, turn-around time and waiting time (Kaplan & Norton 1992:71-79).

The innovation and learning perspective which deals with the ability of an entity to continuously improve and learn encourages the identification of measures that answer the question, "How can an entity continue to improve, create value and innovate?" (Mackay, 2004:17). It includes measures such as time taken to develop a new generation of products, life cycle to product maturity, time to market of an entity's products versus that of its competitors (CIMA, 2008:5; Kaplan & Norton, 12:71-79).

#### 2.2.4 Pricing tools

Pricing refers to the method adopted by an entity when setting selling prices for its products or services (Bizguide, 2011; Gape, 2007). The method adopted when setting selling prices is important because it determines the profit that a business makes and its future survival (Gape, 2007:22). Generally, various factors are taken into account when setting selling prices. These include the cost of a product, competitors' prices of similar products, the quality of a product, demand for a product, availability of perfect substitutes and the regulatory requirements applicable to a product (Roth, 2007:2).

Different methods of pricing can be employed by businesses (Singh, 2013:147; Hanson & Mowen, 2006). These include: cost plus pricing, incremental pricing, market- oriented pricing, target pricing, high-low pricing, pay as you want pricing, competitive pricing and discrimination pricing, to mention but a few. These pricing techniques are briefly described below.

Cost-plus pricing is a cost-based method of setting prices of goods and services (Indounas, 2006:416). Under this method, a business totals all the costs related to a product (Hanson & Mowen, 2006). To the total cost, a mark-up percentage is added to determine the selling price. Market-oriented pricing on the other hand is a method of setting prices based on research and analysis of data collected from a target market (Gape, 2007: 62). According to this method, product prices are set depending on results of a market research. For instance, if the market research reveals that competitors are pricing their products at a lower price, the business could decide to either price its products at a price above that of competitors' or below, depending on its objective (Kijewski & Yoon, 1990: 13).

Competitive pricing is a method of pricing where an entity offers customers a price lower than that of its' competitors, or makes its price more attractive by using added incentives such as longer payment terms (Roth, 2007:04).By contrast, target pricing is a pricing method whereby the selling price of a product is calculated to produce a pre-determined rate of return on investment (Gape, 2007:152).

Incremental pricing is the method of pricing a product based on which, the price of a unit produced (after all fixed costs of production have been met) is based on variable costs (and not on the total cost) incurred in its production (Singh, 2013:148). Pay as you want pricing is a pricing method where buyers determine the amount to pay for a given commodity, which in some cases includes paying nothing at all (Mak, Zwick & Rao, 2010:3-4). In other cases, a

minimum (floor) price could be set or suggested to provide an indication or guidance to the buyer (Schmidt, Spann & Zeithammer, 2012:1; Mak, Zwick & Rao, 2010:3-4). The buyer may also decide to pay a higher amount than the recommended price.

High-low pricing is a pricing strategy based on which an entity initially sells a product at a high price (Singh, 2013:149). Later when the product's popularity declines, the entity then sells the product to customers at a discount or through clearance sales. By contrast, predatory pricing, also referred to as undercutting, is a pricing strategy based on which, the selling price of a product is set at a low price with the intention of driving competitors out of the market or creating barriers to entry for new potential competitors (OECD, 1989:7; Cranet, 2005:1). If competitors or potential competitors are unable to match the prices or lower their prices they go out of business or choose not to enter the market.

Loss leader pricing is a pricing strategy where a product referred to as a loss leader is sold at a price below its cost to stimulate other sales of more profitable products (Roth, 2007). The pricing strategy is used to draw customers into a store where they are likely to buy other goods. An entity that adopts this strategy expects that its typical customer will purchase other products at the same time as the loss leader and that the profit made on the other products will make up for the loss incurred by the loss leader (Roth, 2007).

Contribution margin-based pricing is a pricing strategy that maximises the profit derived from an individual product based on the difference between the product's price and variable costs (contribution margin per unit) (Indounas, 2006:418). The approach requires clearly defined assumptions on the relationship between a product's price and the number of units that can be sold at that price (Indounas, 2006:418). A product's contribution to total profit of an entity is maximised when a price is chosen that maximises contribution margin per unit multiplied by number of units sold.

# 2.3 DEFINITION OF SMES AND THEIR IMPORTANCE TO THE SOUTH AFRICAN ECONOMY

# 2.3.1 Definition of SMEs

The definition of SMEs varies in different countries, but generally depends on, number of employees, annual turnover and gross assets held. In the South African context, the most cited definition of SMEs is provided by the National Small Business Act No. 102 of 1996 as amended by National Small Business Amendment Act of 2003 and 2004 which defines a small business as: a separate and distinct business entity, including co-operative enterprises and non-governmental organisations, managed by one owner or more, which including its branches or subsidiaries, if any, is predominantly carried on in any sector or sub-sector of the economy.

The Act further classifies small businesses as summarised in Table 2.1

Size of enterprise	Number of	Annual turnover (Rand	Gross assets,
	employees	value)	excluding fixed property
Micro enterprise	Less than 5 employees	Less than R150 000	Less than R100 000
Very small enterprise	Less than 10 or 20 employees depending on industry	Less than R200 000 or R500 000 depending on sector	Less than R150 000 or R500 000 depending on sector
Small enterprise	Less than 50	Less than R2million or R25 million depending on sector	Less than R2 million or R4.5 million depending on sector.
Medium enterprise	Less than 100 or 200 depending on industry	Less than R4 million or R50 million depending on the sector	Less than R2 million or R18 million depending on sector

#### Table 2.1: Classification of small businesses in South Africa

Source: National Small Business Act Amendment No.26 of 2003.

For the purpose of this study, SMEs will be classified as shown in Table 2.2.

Category	Description
Small Enterprise	6-50 employees.
Medium Enterprise	51-200 employees

Table 2.2. Classification of SMEs for the purpose of this study

Source: Small Business Amendment Act, No. 26 of 2003.

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).

## 2.3.2 Importance of SMEs

SMEs are important because they create jobs that engage low skills and contribute towards the Gross Domestic Product (GDP) of both developed and developing economies (SBP Alert, 2013:2)). With regard to job creation, SMEs on average provide over 90% of employment in countries such as Malaysia, Nigeria and Indonesia (Ahmad, 2012). Given the relative large number of SMEs when compared to large enterprises, they contribute significantly to the GDP of the countries in which they operate (Berry, Bloltnitzz, Rashad, Kesper, Rajaratnam & Seventer, 2002; Ahiawodzi & Adade, 2012:34; SEDA, 2012:5).

In the South African context, SMEs employ over 60% of the country's labour force (Abor & Quartey, 2010:218). Through job creation, SMEs alleviate social problems that arise due to unemployment such as suicide, crime, prostitution and over-reliance on welfare services (Fan, 2003:3). Apart from job creation, SMEs contribute about 50% of South Africa's GDP (Abor & Quartey, 2010:218; SEDA, 2012:5). They do so as customers of the larger enterprises, particularly for the industrial goods and also as producers of domestic goods (Ahiawodzi & Adade, 2012:35).

SMEs further contribute to redistribution of wealth and reduction of wealth disparity by inculcating an entrepreneurial spirit perceived to be lacking among the previously

disadvantaged South Africans who ordinarily may not have had an opportunity to earn a living (SBP Alert, 2013:2). SMEs also serve as a source of technological innovation which provides practical solutions to local problems (Fan, 2003; OECD, 2000:7). Given their competitive disadvantages when compared to their larger counterparts, SMEs often have to resort to innovation to compete effectively with their larger counterparts (Fan, 2003). As a result, they develop more innovative products that benefit consumers (OECD, 2000:4). Besides, by competing with the larger entities, SMEs provide consumers with a wider variety of products and at a low price. In so doing they improve the overall competitiveness of the country (Fan, 2003: 8).

Given that SMEs operate in virtually every corner of South Africa, they aid in improving the local infrastructure and in reducing regional and sector imbalances in the economy (Monks, 2010:15). In addition, as sub-contractors, SMEs promote specialisation, which improves the productivity of the country (Fjose, Grunfeld & Green, 2010:03).

## 2.4 PRIOR STUDIES ON THE TYPES OF MANAGEMENT ACCOUNTING TOOLS EMPLOYED BY SMES

#### 2.4.1 Budgets

In general, prior studies on the usage of budgets are scarce. The few that are available were conducted in other countries, mostly the developed countries. One of such studies was in form of a questionnaire survey conducted by Abdel-Kader and Luther (2006) to investigate the usage of budgets by 245 companies in the UK's food and beverage industry. Abdel-Kader and Luther (2006) found that despite the limitations of conventional budgets, they remained a central pillar for management accounting and were frequently used in 'what if?' analyses. Specifically, the researchers found that budgets were either 'often' or 'very often' used for planning and for controlling costs by 84% and 73% of the companies respectively. Abdel-Kader and Luther (2006) also found that the usage of budgets for planning and control was considered as either 'important' or 'moderately important' by more than 90% of the companies. The researchers concluded that almost all sampled companies used budgets for planning and control.

Abdel-Kader and Luther (2006) further found that 32% of the sampled companies used flexible budgeting 'often' or 'very often' and considered it 'important' but 29% did not use this budgeting method at all. In addition, the flexible budgets were seldom used for 'what if?' analysis. Abdel-

Kader and Luther (2006) also found that Activity Based Budgeting (ABB) ABB was considered to be either 'moderately important' or 'important' by 63% of the companies. However, only 19% of companies used it 'often' or 'very often'. Nonetheless ABB was perceived to be more important than Activity Based Costing (ABC) and thus was used more frequently than the latter. This finding prompted the researchers to conclude that budgeting was more valuable than costing.

Surprisingly, Zero Based Budgeting (ZBB) was perceived by a majority of companies (58%) to be unimportant. In sum, 83% of the sampled companies rated budgeting as an important part of their long-term strategic planning. Although informative, Abdel-Kader and Luther's (2006) study was conducted in the UK, therefore its findings may not be generalisable to South African SMEs. Besides, the study focused on companies and was conducted more than eight years ago. Therefore the validity of its findings is questionable at present.

In a similar study, CIMA (2009) conducted a global survey on the usage of budgets alongside other MATs by 439 companies that varied from small to very large enterprises. CIMA's (2009) findings revealed that the sampled companies used a range of budgeting tools and methods as on average, each company used four out of the nine possible budgets and methods that were investigated. The nine budgets and methods comprised beyond budgeting, flexible budgeting, rolling forecasts, priority based budgeting, ZBB, cash forecasts, ABB, incremental budgeting and financial year forecasts. By far the most popular budgets were financial year forecasts which were used by 80% of the companies regardless of their size. By contrast, the least popular budgeting method was beyond budgeting which was used by less than 20% of the companies irrespective of their size.

CIMA's (2009) survey further revealed that the smallest companies made the least use of operational budgeting tools, and preferred lesser sophisticated budgeting techniques. CIMA (2009) attributed these findings to a greater control and oversight of expenditure by the owners of smaller companies. However, company size did not seem to affect the usage of the top three most popular strategic budgeting tools – financial year forecasts, cash forecasts and rolling forecasts – as these tools were used to the same extent by all types of companies regardless of their size.

Surprisingly, CIMA's (2009) study did not find significant differences in the usage of budgeting tools in different regions such as the UK, the rest of Europe, Asia, Africa and the rest of the

world, with the exception of usage of rolling forecasts and financial year forecasts. With regard to the latter two, Africa trailed the other regions included in the study. Although CIMA's (2009) study seems informative, it was conducted globally to determine the usage of various MATs and thus it does not focus on the usage of budgeting tools in South Africa. Besides, the study also did not focus on SMEs as it covered the usage of the tools in a variety of companies ranging from small to very large companies. Given this lack of focus on SMEs, it is plausible that the findings of this study may not be generalisable to these entities operating in South Africa.

In a related but more recent Canadian in-depth interview survey, Armitage and Webb (2013) investigated the usage of contemporary MATs, which included budgets for decision-making by eleven SMEs. The researchers found that operating budgets such as master budgets, quarterly and rolling budgets were perceived to be important by the SMEs and were indeed used by 10 out of eleven of these entities, often at highly sophisticated levels. In addition, Armitage and Webb's (2013) study found that the smaller the company, the more likely it was to focus on the cash component of the operating budget. Furthermore, as the size of an SME increased, so did the sophistication of its operating budget.

By contrast, Armitage and Webb's (2013) study found that capital budgets were used by less than half of the SMEs surveyed, mostly for amounts required for maintenance and upgrading activities, as opposed to capital activities such as acquisition of other firms and new technologies. Even when used, the intensity of usage of capital budgets was deemed to be typically low. Worse still, only 18% of the surveyed SMEs used flexible budgeting method that takes into account the consequences of volume changes. Although fairly recent, Armitage & Webb's (2013) study was conducted in Canada, a developed country. Therefore its findings may not be generalisable to SMEs operating in a developing country such as South Africa.

Elsewhere in India, Joshi (2001) conducted a questionnaire survey that examined the management accounting practices, including the usage of budgets by 60 large and medium size manufacturing companies. Joshi (2001) found the adoption of traditional budgeting tools to be higher than that of the more recently developed budgeting techniques, the adoption rate of which was rather slow.

Among the budgets with a high adoption rate were day to day operating budgets (100%), budget variance analysis (100%), cash flow budgets (95%), budgets for coordinating activities

across business units (95%), budgets for controlling costs (93%), and budgets for planning financial position (91%). In addition, capital budgeting tools had a relatively high adoption rate as they were adopted by 85% of the sampled companies. Joshi's (2001) study further revealed that 63% of the Indian companies prepared a formal strategic plan, 58% prepared long-range forecasts and that 53% of the companies developed strategic plans that were separate from budgets. By contrast, only 37% of the sampled Indian companies prepared strategic plans that included budgets. Likewise, only 25% of the companies prepared budgets for compensating managers. Among the least adopted budgets were ABB (7%) and ZBB (5%).

Joshi (2001) concluded that the future emphasis in India was on traditional practices and less on the new techniques because of higher benefits that were derived from such techniques. Size of a company in terms of total assets was also an influential factor in the adoption of the newly developed practices. Joshi (2001) added that Indian management generally avoids risk, is quite conservative and less innovative in adopting new management accounting techniques. Although insightful, Joshi's (2001) study is dated and was conducted in India. Therefore its findings might not be applicable to South African SMEs at present.

In a similar Asian questionnaire survey, Ahmad (2014) investigated the usage of budgets alongside other management accounting practices of 160 Malaysian SMEs from the manufacturing sector. Ahmad's (2014) study revealed that 76% of the SMEs employed a budgeting system, although the medium enterprises had a significantly higher usage (81%) of the same than their smaller counterparts (64%). Among the various types of budgets used, sales budgets were the most popular as they were used by 71% of the sampled companies, followed by cash flow budgets which were used by 70% of the SMEs, whereas purchases budgets were used by 70% of the SMEs, whereas purchases budgets were used by 70% of the SMEs.

With regard to budgeting methods (approaches) used by the SMEs, Ahmad's (2014) study revealed that flexible budgeting was the more popular approach as it was used by 63% of the sampled SMEs, followed by incremental budgeting used by 59%, then continuous budgeting used by 58% of the entities. Consistent with Joshi's (2001) findings, ZBB was the least-used approach, as it was used by only 50% of the sampled SMEs. Although informative and recent, Ahmad's (2014) study was conducted in Malaysia. Therefore its findings may not be generalisable to SMEs operating in South Africa.

#### 2.4.2 Performance Measurement Tools (PMTs)

Few studies have examined the usage of PMTs by SMEs in South Africa and globally. One of such studies was conducted in the UK by Hudson, Smart and Bourne (2001:1106) to evaluate the appropriateness of strategic PM system development processes for Eight SMEs, using semi-structured interviews. To this end, Hudson et al. (2001) developed six critical dimensions (measures) of performance that covered quality, time, flexibility, finance, customer satisfaction and human resources.

The study of Hudson et al. (2001) revealed that none of the sampled SMEs had measures that covered all the six critical dimensions of performance identified. Instead, all sampled companies employed a plethora of financial measures. Although three companies employed human resource performance measures, these measures were very rudimentary and only covered issues such as staff turnover. In addition, none of the companies surveyed attempted to measure flexibility. Furthermore, many of the measures in use in each company had significant flaws key among which was a lack of reference to a company's strategy. Besides, the measures adopted varied widely from company to company, with some maintaining a small number of simple and practical measures, whereas others had measures that were mostly either obsolete or designed essentially for monitoring historical data. Interestingly, these companies complained that the measures produced an overload of data that was either too complex or outdated and thus unusable. Even where the data was usable, only one SME had a formal feedback system, via monthly review meetings.

The study of Hudson et al. (2001) is however outdated as it was conducted in 2001. Therefore its findings may not be valid at present. Besides, the study was conducted in the UK and employed a small *ad-hoc* sample, which undermines the generalisability of the findings to South African SMEs.

Abdel-Kader and Luther's (2006:4) study cited earlier in Section 2.4.1 also investigated the usage and perceived importance of four groups of performance measures among 245 sampled companies in the UK's food and beverage industry. The four groups of performance measures included traditional financial measures, Economic Value Added (EVA), benchmarking and non-financial measures related to customers, operations innovation and to employees. Predictably, a majority of the sampled companies (78%) rated financial measures as important and used these measures frequently. Interestingly, non-financial measures related to customers and to

operations innovation were considered to be very influential as they were perceived to be at least moderately important by 87% and 77% of the sampled companies respectively.

Notwithstanding the perceived importance of non-financial measures related to customers and to operations innovation, 38% of the sampled companies either did not produce such measures or rarely did so. Likewise, 41% of the companies had never produced employee related measures and neither EVA nor benchmarking had gained popularity among UK food and beverage companies. As indicated in Section 2.4.1, the generalisability of the findings of Abdel-Kader and Luther's (2006) study to South African SMEs is questionable as it was conducted in the UK, among large companies.

Joshi's (2001:94) study cited in Section 2.4.1 above also investigated the use of performance evaluation tools among a sample of 60 large and medium size Indian manufacturing companies. Joshi (2001) found that financial measures were by far more popular as 100% of the sampled companies used return on investment, budget variance analysis and divisional profits to evaluate their performance. In addition, 83% and 80% used control of profit and cash flow return on investment respectively to evaluate their performance. One notable exception in the overwhelming preference of financial performance measures by most of the sampled companies was the usage of residual income by only 43% of the companies.

With regard to non-financial performance measures, Joshi (2001) found that 88% of the sampled companies used ongoing suppliers' evaluations and that 80% used customer satisfaction surveys to evaluate their performance. In addition, 70% used team performance but only 53% used other non-financial measures. Indeed, only 40% of the sampled companies specifically used the balanced scorecard. Likewise, only 37% of the sampled companies used qualitative measures to evaluate their performance. Worse still, only 22% of the sampled companies used employees' attitudes to evaluate their performance. Joshi's (2001) findings mirrored those of Hudson et al. (2001) and Abdel-Kader and Luther (2006) by highlighting the preference of financial measures over non-financial ones by most of the sampled companies. Although informative, Joshi's (2001) study, as alluded to earlier, is dated and was conducted in India. Thus its findings may neither be valid at present nor applicable to South African companies.

24

In a more recent Malaysian study on the adoption of performance measurement tools, by 160 SMEs from the manufacturing sector (also cited in 2.4.1), Ahmad (2014) found that an average of 79% of the SMEs had a performance measurement system. Specifically, 80% of the medium enterprises and 78% of the small enterprises had a performance measurement system. Ahmad (2014) further found that the most popular financial measures used by the sampled Malaysian SMEs were sales growth used by 76% of these entities, operating income used by 75%, cash flow measure used by 74%, and return on investment used by 73% of the SMEs. On the other hand, the most popular non-financial measures were on-time delivery and number of customer complaints both which were used by 77% of the SMEs. Other popular non-financial measures used by 75% of these entities, defect rate and employee absenteeism rate both which were used by 73% of the SMEs, manufacturing lead time and customer satisfaction survey both which were used by 73% of the SMEs.

Other non-financial measures used by the SMEs were: stock control model used by 59%, number of warranty claims used by 73% and product profitability analysis used by 60% of the sampled SMEs. As indicated earlier, Ahmad's (2014) study was conducted in Malaysia and thus its findings may not be generalisable to the SMEs operating in South Africa.

One common observation that can be made from the studies reviewed thus far is that they were conducted outside the African continent. In a clear departure from the above studies, Waweru and Spraakman (2012) investigated the use of performance measures by three Micro-Finance Institutes (MFIs) in Kenya using a case study methodology. In a sharp contrast to the findings of Hudson et al. (2001), Abdel-Kader and Luther (2006), Waweru and Spraakman's (2012) study revealed that all the three MFIs employed both formal financial and non-financial performance measures, and that performance was evaluated at individual, division or branch and organisational levels. Whereas individual performance evaluation was mainly done at the end of the financial year, both divisional and organisational performance evaluation were carried out continuously throughout the year.

The financial and non-financial performance measures that were used were broadly categorised into competitive position measures, financial performance measures, service quality measures, resource flexibility measures, resource utilisation measures and innovation measures (Waweru & Spraakman, 2012). With regard to competitive position measures, all the three MFIs used number of borrowers and savers as measures of performance, whereas two

of the MFIs used total loans disbursed as a measure of their performance. With respect to financial performance, all the MFIs used profit margin or expenses ratio, particularly at the divisional level. Two of the MFIs also used return on assets, return on equity, profit margin and gross loan portfolio as measures of performance.

In relation to service quality measures Waweru and Spraakman (2012) found that two of the MFIs used customer complaints, customer satisfaction rating, portfolio at risk, loan loss reserve ratio and loans loss write of ratio or provision. As far as resource flexibility is concerned, all three MFIs used operating expenses as a percentage of loan the portfolio as a performance measure, alongside cost per borrower and number of borrowers per staff member. With regard to resource utilisation, all the three MFIs employed yield on portfolio and repayment rate as performance measures. Concerning innovation, all the three MFIs used number of new products developed, number of new services developed, as well as number of staff trained as measures of performance.

Waweru and Spraakman's (2012) study also revealed that all the three MFIs monitored their divisional (branch) performance on an ongoing basis. Both financial and non-financial measures were used to evaluate performance at the branch level. The profit margin was considered the most important measure of divisional performance followed by quality of the loan portfolio.

Two of the MFIs introduced the Balanced Scorecard (BSC) that linked their performance measures to their mission and strategy. However, the BSC was only used at corporate level and had not been cascaded down to the branches. It was therefore unlikely that the MFIs were enjoying the full benefits of the BSC. Notwithstanding the insights provided by Waweru and Spraakman's (2012) study, its findings cannot be generalised to South African SMEs given the case study methodology employed in the study that only focused on three MFIs, in one sector. Besides, the study was conducted in Kenya and not in South Africa.

In a unique South African case study, Naude (2007) sought out to determine the degree of organisational performance measurement in SMEs in the Information, Communication and Technology (ICT) sector within the Limpopo Province of South Africa. Using a case study approach in form of semi-structured interviews of seven sampled SMEs, Naude (2007) found that with the exception of one SME, all the SMEs sampled had no knowledge of PM

frameworks. In fact, all of the sampled SMEs lacked a clearly defined strategy and accordingly did not employ any specific PM framework.

Nonetheless, all sampled SMEs employed some form of metrics to measure their performance, but these were mostly financial indicators. Key among the financial measures that were employed by the sampled SMEs included cash flows, gross profit and turnover/revenue, outstanding debtors and creditors days. Other financial measures used included billing targets, net profit after tax and savings.

Despite the extensive use of financial measures, some non-financial measures particularly those focusing on customers were also used, albeit not to the same extent as the financial measures. These included client service quality, customer satisfaction, new business, number of orders, number of quotations and service level agreements. Other non-financial measures employed by the sampled companies focused on internal processes and efficiency. These included fuel usage, problem solving and turnaround time, project deliverables and time spent /calls out time. Although useful, Naude's (2007) study only focused on the ICT sector in Limpopo province of South Africa and employed a case study approach of seven SMEs. Therefore, the findings of Naude's (2007) study may not be generalisable to SMEs in other provinces of South Africa, particularly those from other sectors.

#### 2.4.3 Pricing Tools

Only a few prior studies have investigated the usage of pricing tools, perhaps due to the sensitive nature of the information pertaining to these tools. One such study was conducted by Carson, Gilmore, Cummins, O'Donnell and Grant (1998) who conducted in-depth interviews to investigate how 40 Northern Irish SMEs' owner-managers took pricing decisions. Carson et al. (1998) found that most of the owner-managers of SMEs used Cost-plus approach of setting prices by taking into account all of their fixed and variable costs and adding a percentage mark-up.

In tandem and perhaps as an extension of the cost-plus approach, many owner-managers of the sampled SMEs priced products to achieve a certain margin which was intended to cover costs and to achieve a pre-set mark-up. Carson et.al. (1998) further found that those entities that did not use the Cost-plus approach tended to consider what the customers were willing to pay before setting their prices accordingly. In addition, most SMEs also factored in their

competitors' prices and pricing strategies when setting prices of their own products. As such the managers of the SMEs made a conscious decision regarding the price they set relative to competitors, deliberately pricing their offerings equal to, more than or less than the competitors.

Furthermore, many small entities adopted a discriminatory (flexible) pricing approach by charging different prices to different customers. In tandem with flexible pricing was negotiation to reach an acceptable price for both parties to a transaction. This involved negotiating with suppliers for better deals on the raw materials and trying to get the best possible price for an entity's products.

However where a flexible pricing approach was used, owner- managers also set prices based on their gut-feeling particularly when the price set gave generous margins in a market in which a threat of entry of a new competitor was imminent. Although informative, the study of Carson et al. (1998) is dated as it was conducted in 1998. Besides, it was conducted in Northern Ireland, hence the findings may not be generalisable to South African SMEs

Elsewhere in Europe, Fabiani, Druant, Hernando, Kwapil, Landau, Loupias, Martins, Martha, Sabbatini, Stahl and Stokman (2005) reviewed surveys conducted by nine Eurosystem national central banks on how 11,000 entities in the Euro Area (Austria, Belgium, France, Germany, Italy, Luxembourg, the Netherlands, Portugal and Spain) set their prices. In general, the Fabiani et al. (2005) review revealed that the surveyed entities operated in monopolistically competitive markets where prices were mostly set using mark-up rules and price discrimination was common. In addition, about a third of the firms followed time-dependent pricing rules whereas two thirds employed some form of state-dependent pricing where governments determined the prices. Furthermore, the majority of the sampled entities took into account their past and expected economic developments in their pricing decisions.

With regard to mark-up pricing, Fabiani et al. (2005) found that the pricing method was the predominant price setting method as it was used by more than 50% of the sampled entities in the Euro Area. However the usage of this method varied widely among the different Euro Area countries. In Germany for instance, 73% of the sampled companies set prices as a mark-up on cost, whereas in France only 40% did the same. For those countries in which companies distinguished between mark-up on fixed costs and mark-up on variable costs, the latter was

more popular. In general, smaller firms tended to rely more on mark-up pricing than their larger counterparts, an observation that was attributed to the higher level of competition faced by the latter.

As far as price discrimination is concerned, the Fabiani et al. (2005) review identified two different forms of price discrimination that were used by companies in the Euro Area. The first form which the researchers described as setting prices on a case-by-case basis or depending on the quantity of the product sold was a common practice with about 80% of all the sampled companies setting prices in this manner. However the adoption rate of this form of price discrimination tended to vary from one country to another, ranging from 92% in Germany to 65% in Spain, but was about 75% in four other countries.

The second form of price discrimination which Fabiani et al. (2005) described as pricing to market, an approach in which a company charges different prices for the same product in different countries, was adopted by about 50% of companies that exported products within the Euro Area. This approach was more prevalent among companies that exported outside the Euro Area. For instance, up to 60% of the sampled Spanish companies charged different prices across non-Euro Area countries.

Fabiani et al. (2005) further found that the percentage of companies that set their prices based on those of their competitors' ranged from 38% in France to 13% in Portugal. Moreover, a minority of companies employed 'other unspecified rules' to set their prices. The usage of the latter to set prices also varied widely in different countries ranging from 26% in Italy to 10% in Germany. However, in all countries, the usage of 'other unspecified rules' was more prevalent among the large companies than it was among the small ones. Although enlightening, the findings of the Fabiani et al. (2005) review may not be generalisable to South African SMEs at present as it focused on European companies that ranged from small to large enterprises. The review is also dated having been conducted about ten years ago.

In a similar study, Avlonitis and Indounas (2005) explored the pricing methods of 170 Greek service companies from six different sectors using personal interviews. The researchers found that the two most popular pricing methods adopted by the companies were cost-plus pricing method and market average pricing method, which was attributed to the ease with which these methods could be implemented. The most popular pricing method was cost-plus pricing

method used by 58.2% of the sampled companies followed by market's average pricing method used by 55.3% of the companies.

Other pricing methods adopted by the Greek companies by order of popularity were target return pricing (28.2%), closely followed by pricing according to the dominant prices in the market (27.6%) and pricing according to the customers' needs (27.1%). Break-even analysis pricing, perceived-value pricing and value pricing had a usage rate of 24.1%, 23.5% and 22.9% respectively, followed by pricing below competitors (14.1%) and above competitors (9.4%). By far the least popular pricing methods were contribution margin analysis and marginal pricing which were adopted by 7.6% and 1.8% of the sampled companies respectively.

In general, the pricing methods used were found to depend on the pricing objectives of the companies. As informative as Avlonitis and Indounas' (2005) study was, it was conducted in a Greek service sector about ten years ago, hence its findings may not be generalisable South African SMEs at present, particularly those operating in sectors other than the service sector.

In yet another European study, Hoeberichts and Stokman (2006) investigated how 1246 multisectoral Dutch firms of different sizes set prices for their main products, among other objectives. Hoeberichts and Stokman (2006) found that 53.9% of the Dutch firms employed at least one form of mark-up pricing with 35.4% of the firms adopting a variable mark-up pricing method while 23.9% adopted a fixed mark-up pricing method. Interestingly, smaller firms seemed to prefer the latter method, whereas the larger firms preferred the former.

The third most popular pricing method was by comparing product prices to those of similar products sold by competitors. The latter approach was adopted by 21.6% of the sampled firms and was found to be particularly popular among the single-employee firms. The fourth most popular pricing method was setting prices according to wages which was adopted by 10.2% of the sampled companies, followed setting of prices according to the customer, which was adopted by 5.5% of the sampled companies. The least popular method, which Hoeberichts and Stokman (2006) referred to as "other" was adopted by 3.5% of the sampled companies.

The findings of Hoeberichts and Stokman (2006) echoed those of Fabiani et al. (2005) with regard to preference of mark-up pricing method by the sampled entities. However, like the

study of Fabiani et al. (2005), Hoeberichts and Stokman's (2006) study is dated and was conducted in Europe; therefore its findings may not be generalisable to South African SMEs.

CIMA's (2009) global survey on 439 companies cited in Section 2.4.1 also investigated the pricing techniques adopted by the sampled companies alongside other MATs. The usage of six pricing techniques was investigated which comprised cost-plus pricing, market sensitive pricing, segmental pricing, price skimming, penetration pricing and transfer pricing between business units. On average, respondents used just over two pricing techniques from the six surveyed. The most popular pricing technique was cost-plus pricing which was used by just over 60% of the sampled companies, followed by market sensitive pricing which was used by 60% of the companies. The third most popular pricing technique was transfer pricing between business units, which was used by just under 50% of the sampled companies followed by segmental pricing which was used by just under 30% of the companies. The fifth most popular pricing technique was penetration pricing which was used by just under 20% of the companies, followed by market sensitive pricing.

As already alluded to, CIMA's (2009) study was conducted globally to determine the usage of various MATs and thus it does not focus on the usage of pricing techniques in South Africa. Besides, the study also did not focus on SMEs as it covered the usage of pricing techniques in companies of diverse sizes that ranged from small to very large companies. Given this lack of focus, the findings of CIMA's (2009) study may not be generalisable to SMEs operating in South Africa.

In a clear departure from the above international studies on usage of various pricing methods, Gape (2007) conducted a questionnaire survey to elicit SMEs' managers' perceptions on various aspects related to pricing, using a sample of 219 SMEs located within the Central Business District of Johannesburg. Gape (2007) found that 38% of the sampled SMEs had a pricing policy, 58% did not have the same, while 4% did not disclose whether they had such a policy or not. Gape further found that 49% of the sampled SMEs allowed market forces to determine their prices but 47% did not. Four percent of the SMEs did not disclose whether they allowed market forces to determine their prices or not.

With regard to SMEs' managers' perception of importance of various pricing objectives, Gape's (2007) study revealed that 92% of the respondents perceived achieving a set return on investment to be either an important or very important pricing objective, while 91% perceived

the same of achieving a set target mark-up on cost. Other objectives perceived to be important were achieving a market share target (82%), matching competitors' prices (81%) and stabilising prices (77%). The least important pricing objectives were 'other' unspecified objectives perceived to be important by 75% of the respondents.

Concerning SMEs' managers' perception of importance of various pricing tactics employed by the SMEs, Gape (2007) found that the most important tactic was pricing relative to competition (88%), followed by charging uniform prices to buyers (81%). The third most popular tactic was provision of quantity discounts (61%), followed by provision of cash discounts (55%) and provision of trade discounts (44%). The least important pricing tactic was geographical pricing which was perceived to be important by only 26% of the respondents.

As far as the perception of importance of various factors in the pricing of products is concerned, Gape's (2007) study revealed that cost was the most important factor (98%), followed by competitor's prices (87%), then buyers behavior (82%). The fourth most important factor in pricing of products was 'other' unspecified factors (65%), followed by government legislation (64%), and then the economic climate (57%).

With respect to the perceived importance of various cost-based pricing methods, Gape (2007) found that full cost-pricing was perceived to be important by 97% of the respondents, followed by contribution pricing (83%), then activity-based cost pricing cost (87%), followed by other cost-based pricing methods (67%). The latter was a combination of cost-plus pricing, break-even pricing and marginal cost pricing.

With regard to the perceived importance of pricing strategies, 77% of the respondents perceived both skimming and penetration pricing to be important. Likewise, 77% of the respondents perceived other pricing strategies, namely product-line pricing, generic pricing, captive-product, product bundle pricing, price unbundling, promotional pricing and reference pricing as a collective to be important. Although Gape's (2007) study was conducted in South Africa and is insightful, it is dated, as it was conducted about seven years ago in Johannesburg. Therefore, at present, its findings may not be generalisable to SMEs in other parts of South Africa such as the Cape Metropole.

## 2.5 PRIOR STUDIES ON THE PURPOSE FOR WHICH MATS ARE USED

According to Alleyne and Marshall (2011), the main purpose of using MATs is to generate a good report that enables managers to make decisions as well as provide information for planning, controlling and performance measurement. As with the prior studies on the types of MATs employed by SMEs, studies on the purpose for which MATs are used are scarce and are mostly conducted outside Africa. One such study was in form of a questionnaire survey conducted by Ahmad (2012) to investigate the role played by MATs in the management of 160 Malaysian SMEs from the manufacturing sector, among other objectives. Ahmad (2012) found that 80% of the sampled SMEs used MATs to measure and evaluate performance, 76% used the tools to control their current activities, while 72% employed the tools to optimise on their usage of resources. Of the respondents, 69% employed MATs for planning for their future strategies, tactics and operations, as well as for reducing subjectivity in the decision- making process. The least popular purpose for which the SMEs employed the MATs was improving internal and external communication as only 66% employed MATs for this purpose. Though informative, Ahmad's (2012) study was conducted in Malaysia, therefore its findings may not be generalisable to South African SMEs.

Elsewhere in Australia, Xydias-lobo, Tilt and Forsaith (2004) elicited the perceptions of 161 South Australian Management Accountants on the current and future functions of management accounting (and by implication MATs). Xydias-lobo et al. (2004) found that 63.4% of the respondents perceived the current function of management accounting to be that of reporting and provision of information. Followed by strategy, decision-making, forecasting and planning which were suggested by 9.3% of the respondents. Only 6.8% of the respondents perceived the current function to be that of budgeting and costing.

As far as the future function of management accounting is concerned, the respondents indicated that they did not expect the future to be any different from the current practices, however they expected the priorities to reverse. Specifically, 36% of the respondents speculated that in the future, the most important function of management accounting will focus on strategy, decision-making, forecasting and planning, followed by reporting and information provision which was cited by 32.3% of the respondents. Interestingly, PM was also mentioned as a future function of management accounting, albeit by only 4.3% of the respondents.

Although the study by Xydias-lobo et al. (2004) was insightful, it is dated as it was conducted more than 10 years ago. In addition, it only implied the role of MATs as it focused on management accounting as a profession and did not focus on perceptions of management accountants of SMEs. Furthermore, it was conducted in Australia, a developed country; therefore its findings may not reflect the perceptions of management accountants of SOMES.

In a related Chinese case study, O'Connor, Chow and Wu (2004) investigated the purposes for which "Western" MATs were used by four state Owned Enterprises (SOEs) and two of their joint ventures with foreign multi-national corporations. O'Connor et al. (2004) found that the sampled entities used 'Western' MATs to first and foremost formalise their decision-making process. Secondly, the MATs were used to reduce managers' decision-making errors, given the dynamic and complicated nature of the markets that the entities operated in. Thirdly, the MATs were used to evaluate the performance of functional managers in order to increase their accountability. However, the O'Connor et al. (2004) study focused on four Chinese SOEs and two of their joint ventures, with foreign multi-national corporations. Therefore its findings may not be generalisable to South African SOEs, let alone the SMEs. Besides, it was conducted more than 10 years ago thus its findings may be outdated at present.

Abdel-Kader and Luther's (2006) questionnaire survey on the usage of MATs by 245 UK food and beverage companies (cited earlier in Section 2.4.1)also found that budgeting was often or very often used for planning and for controlling costs by 84% and 73% of the sampled companies respectively. Indeed, the usage of budgets for planning and controlling purposes was considered to be either important or moderately important by at least 90% of the sampled companies. Likewise, 83% of the companies perceived budgeting to be an important part of their long-term strategic planning.

In addition, Abdel-Kader and Luther (2006) found that MATs were used for making decisions related to product profitability and customer profitability. Specifically, MATs were often or very often used for product profitability analysis and customer profitability analysis by 69% and 51% of the sampled companies respectively. The two analyses were also rated as important by 72% and 59% of the companies respectively. Another analysis perceived to be important or moderately important by 86% of the respondents was Cost-Volume-Profit (CVP) analysis. However, only 44% of the sampled companies indicated that they used MATs for CVP analysis often.

Abdel-Kader and Luther (2006) also found that MATs were used for strategic analysis, particularly long-range forecasting which was done often or very often by 43% of the sampled companies followed in frequency by an analysis of competitors' strength and weaknesses, conducted often or very often by 21% of the companies. Given that Abdel-Kader and Luther's (2006) study was conducted in the UK and focused on large companies, its findings may not be generalisable to SMEs operating in a developing country such as South Africa.

A more recent Turkish questionnaire survey conducted by Uyar (2010) on the cost and management accounting practices of 61 SMEs and large manufacturing companies required respondents to rate the importance of costing information for various purposes. Uyar (2010) found that making pricing decisions was the most important purpose for which costing information was used, followed by the computation of customer profitability and activity analysis. The third most important purpose for which the information was used was performance measurement, followed by make or buy decisions, and then product mix decisions. The least important purpose for which costing information was used was for adding or dropping products. Although informative, Uyar's (2010) study focused only on the purpose for which the MATs themselves were used. However, the study did not indicate the percentage of sampled SMEs that used MATs for various purposes. In addition, the study was conducted in Turkey, among SMEs and large companies, thus its findings may not be generalisable to South African SMEs.

In a similar Barbadian case study, Alleyne and Marshall (2011) investigated the management accounting practices of three manufacturing subsidiaries of a public limited group company. Alleyne and Marshall (2011) found that budgeting was used by the three sampled companies for planning, controlling costs, developing long-term strategies and evaluating major capital investments. Two out of the three companies used budgeting for 'what if analysis'. Alleyne and Marshall (2011) also found that management accounting practices were used by the three sampled companies to evaluate their financial performance and non-financial performance pertaining to customers as well as operations and innovations. Only one company employed the practices to evaluate non-financial performance relating to employees. The other purposes for which the management accounting practices were used by one of the three companies included industry analysis, analysis of competitive position, product life cycle analysis, analysis of competitors' strengths and weaknesses. Alleyne and Marshall's (2011) study, however, was

in form of a case study of three large sister companies located in Barbados; accordingly, its findings may not to be generalisable to South African SMEs. Up until now, all the studies reviewed on the purpose for which MATs are used were conducted in other continents, but not in Africa.

In a unique African case study, Ndwiga (2011) investigated the role of management accounting in creating and sustaining a competitive advantage in a Kenyan Bank using a questionnaire survey and an in-depth interview of 40 respondents. Of the respondents sampled, 85% indicated that management accounting practices were very important in creating a competitive advantage, 10% indicated that the practices were somewhat important, while 5% were not sure.

Specifically, over 75% of the respondents perceived the practices to be very important for developing Information technology that renders quick and reliable service to customers, motivating employees, improving organisational management, facilitating strategic alliances, and enhancing efficient liquidity management. Over 70% of the respondents also perceived the practices to be very important for strategies that relate to product development such as identifying new and innovative products, setting the time to release new products and diversifying products to suit different income groups. Likewise, over 70% of the respondents perceived the practices to be very important for strategies related to service delivery such as designing methods that enhance the quality of services, identifying unique products that were not offered by competitors, identifying ways of offering better terms of service, determining the most competitive interest rates, identifying profitable sectors for micro-financing and identifying cases that required refinancing.

In addition, over 70% of the respondents perceived management accounting practices to be very important for developing strategies related to marketing. The strategies included designing competitive methods of product promotion (70%), differentiating products (80%), differentiating premises from those of competitors (75%), identifying suitable areas to showcase corporate responsibility (75%), and identifying areas for new branches (75%). Equally, over 70% of the respondents perceived management accounting practices to be very important for recruiting, training, incentivising, and enhancing teamwork among members of staff.

Over 65% of the respondents perceived management accounting practices to be very important for developing strategies related to transaction processing. These strategies included

determining ways of easing the process of becoming a customer of the bank (70%), determining methods of making loan applications easier (75%), determining what to charge on transactions (70%), determining the collateral for loans (70%), ensuring that loans are available when needed (65%), as well as allowing check-offs and direct deposits (65%). Over 60% of the respondents perceived management accounting practices to be very important for evaluating the changing business environment, providing skills that lead to the growth and expansion, management of risks, analysing competitors, evaluating customers' needs and assessing customers' affordability.

Notwithstanding the comprehensive nature of Ndwiga's (2011) study, it was in form of a case study that focused on one listed large bank in Kenya. Therefore its findings may not be generalisable to South African SMEs, particularly those operating in other sectors apart from the finance sector.

# 2.6 PRIOR STUDIES ON PERCEPTIONS OF SMES REGARDING THE EFFECTIVENESS OF MATS EMPLOYED

Only a limited number of studies have examined the perceptions of SMEs or even large enterprises regarding the effectiveness of MATs employed. One such study was undertaken by Accenture and Cranfield School of Management (CSM) (2001) with an objective of reviewing planning and budgeting practices of 15 large European and American companies. Accenture and CSM's (2001) study revealed a widespread dissatisfaction with the budgeting process and the budgets themselves. Among the complaints noted was the perception that budgeting was a time consuming and costly process. The budgets themselves were criticised for being a barrier to change by constraining responsiveness and flexibility. In addition, budgets were perceived to be lacking in strategic focus given that they were contradictory to each other.

Budgets were further criticised for adding little value, as the value they added was not perceived to be commensurate to the time required to prepare them, and for concentrating on cost reduction and not value creation. Other criticisms included the perception that budgets strengthened vertical command and control, failed to reflect the emerging network organisational structures that the companies were adopting, encouraged perverse behavior, were infrequently updated, and relied on unsupported assumptions and even guesswork. Besides, budgets were criticised for reinforcing departmental barriers rather than encouraging knowledge sharing and for undermining staff. Although informative, Accenture and CSM's (2001) study is dated having been conducted more than 14 years ago. Besides, the study only focused on 15 large companies in USA and Europe, therefore its findings may not be generalisable to South African SMEs at present.

Another study that also investigated the perceived effectiveness of MATs is the Barbadian case study conducted by Alleyne and Marshall (2011) on three sisters manufacturing companies that was cited earlier in Section 2.5. Alleyne and Marshall (2011) found that the three companies perceived management accounting practices to be generally very effective and that the practices had contributed to the success of the entities. The three companies also concurred that the practices had given them tools for sound business decisions and that the practices had also contributed to the profit maximisation and returns on shareholders' investment. Among the benefits derived from the practices that were cited by the companies included effective cost control that had enabled them to achieve their goals, sound inventory control, good cash management, good internal reporting as well as availing relevant information for decision-making.

Alleyne and Marshall (2011) also identified challenges encountered with the application and usage of some management accounting practices within the three entities. The challenges included, a lack of; timeliness, comprehensibility and accuracy of the information obtained from the management accounting practices. In addition, some of the practices were found to be difficult to apply and were indeed discontinued by some of the companies. Nonetheless, the companies were generally satisfied with the management accounting practices and perceived the challenges as a way to highlight the areas where management needed to pay specific attention to in order to improve the running and effectiveness of their operations. In addition the companies lauded the benefits that were obtained from the implementation of the management accounting practices.

As indicated in Section 2.5, the findings of Alleyne and Marshall's (2011) case study of three large sister companies located in Barbados may not to be generalisable to South African SMEs.

All the above studies on the perceived effectiveness of MATs thus far were conducted in other continents. In a unique African study conducted in the Lagos state of Nigeria, Abogun and Fagbemi (2011) elicited the perceptions of 110 representatives of manufacturing companies on the relevance and desirability of budgets. The researchers found that 68% of the companies

perceived budgets to be useful tools for planning, controlling, decision-making, coordinating, communicating and creating value. In addition, 65% of the companies perceived budgeting as a worthwhile exercise that was beneficial to them. However, Abogun and Fagbemi's (2011) study was conducted in Nigeria, among large manufacturing companies, therefore its findings may not be generisable to South African SMEs.

## 2.7 PRIOR STUDIES ON THE FACTORS THAT INHIBIT SMES FROM USING MATS

Notwithstanding the relatively low uptake of MATs by SMEs when compared to their larger competitors, only a few studies have been conducted to investigate the factors that inhibit these entities from adopting these critical tools. One such study is the Canadian in-depth interview survey by Armitage and Webb (2013) on the usage of contemporary MATs by 11 SMEs (cited earlier in Section 2.4.1), which raised doubts about the usefulness of MATs to SMEs. Specifically, Armitage and Webb (2013) observed that many of the tools were not perceived as sufficiently adding value given that they had failed the cost-benefit test due to the limited sizes of the sampled SMEs. With regard to the adoption of flexible budgets in particular, Armitage and Webb (2013) attributed their low usage (used by only 2 out of the 11 companies sampled) to the perception that adjusting budgets to reflect the actual levels had no value as SMEs preferred to adjust forecasts instead, which were then used as forward-looking planning tools. Another reason cited for the low uptake of flexible budgets was that the costs of preparing flexible budgets exceeded the benefits of doing so, given the paperwork and time required to prepare the budgets. Armitage and Webb's (2013) study, though fairly recent, was conducted in Canada, a developed country, among only 11 SMEs. Therefore its findings may not be generalisable to South African SMEs.

In a similar Greek survey, Indounas (2006) investigated the usage of contribution margin pricing by 129 transportation and 48 information technology companies and found the uptake of the pricing method to be low as only 13.9% of the former companies, and 10.2% of the latter companies had adopted the pricing method. The most cited reason for a low adoption of the method was the difficulty associated with its practical implementation, cited by 81.6% of the companies, followed by a preference for less complicated approaches, cited by 67% of the companies. Other reasons included the perception that pricing was based on top management decision, cited by 53.6% of the companies and the view that prices were determined or changed on the basis of managers' experience and intuition. Indounas' (2006) study is however dated as it was conducted more than eight years ago. In addition, the study did not

address the factors that inhibited the adoption of other pricing methods apart from contribution margin pricing, let alone other MATs. Furthermore, the study was conducted in Greece, a European country. For these reasons, the findings of Indounas' (2006) study may not be generalisable to South African SMEs.

In a similar, but more recent mixed methodology Srilankan study, Subasinghe and Fonseka (2009) investigated the factors contributing to the low adoption of Management Accounting Practices (MAPs) by 22 limited liability companies from three sectors. The researchers observed that the importance of management accounting had not been adequately recognised and neither was the management accountant assigned his rightful place in the sampled companies. Indeed, 13 out of the 22 sampled companies did not have a separate function designated as management accounting; instead the function had been sub-ordinated to financial accounting. Specifically, 80% of trading companies, 70% of service companies and 30% of manufacturing companies included in the sample did not have a separate management accounting function. Accordingly, these companies relied on the financial accountant to perform the management accounting reporting role.

As a result, MAPs were given a low priority, given that the accountants were preoccupied with financial accounting related compliance with mandatory statutory reporting requirements. Though informative, Subasinghe and Fonseka's (2009) study was conducted more than five years ago in Srilanka, among large companies and employed a limited sample of 22. Accordingly its findings may not be generalisable to South African SMEs at present.

Elsewhere in Jordan, Al Smirat (2013) conducted a questionnaire survey to investigate the factors that inhibited 136 SMEs from preparing monthly management accounts, among other objectives. The most cited factor was the perception that qualified accountants were too expensive to maintain (85%), followed by the perception that accounting records were too difficult to understand (70%). Other factors cited included a lack of internal accounting staff (57%), followed by the need to avoid paying taxes (51%), and then the perception that the SMEs were too small to warrant monthly management accounts (42%). The least-cited factor was the perception that accounting records do not add any value (32%). Though fairly recent, Al Smirat's (2013) study's findings cannot be generalised to South African SMEs given that it was conducted in Jordan.

In an African study conducted in Mauritius, Padachi (2012) investigated the factors that inhibited the adoption of formal accounting systems by 145 SMEs from the manufacturing sector. Padachi (2012) found that 63% of the entities were family owned, 94% of which owner-managers oversaw all the operational aspects of the enterprises leaving no time for performing even basic accounting routines. In addition, 36.2% of the sampled companies were sole proprietorships, organisations in which the entity concept was less pronounced, an aspect that also undermined the adoption of formal accounting systems. Furthermore, due to a lack of financial management skills, 69% of the sampled entities maintained minimal accounting records as they did not see the need for formal accounting records where family members were involved.

Padachi (2012) attributed the low adoption of formal accounting systems to the perception that the best practices of large firms may not be relevant to the small entities and that small entities do not have the same level of sophistication in their financial dealings as their larger counterparts. Besides, some of the small entities' motivate to stay in business was of non-financial nature such as to carry on family tradition. However, Padachi's (2012) study was conducted in Mauritius, therefore its findings may not be generalisable to South African SMEs. In addition, the study dealt with the factors inhibiting the adoption of accounting systems in general, thus did not focus on MATs.

Thus far, all the above studies on factors that inhibit SMEs from adopting MATs or accounting systems were conducted in other countries apart from South Africa. In a unique South African questionnaire survey, Phenya (2011) assessed the financial management skills of owners of owner/managers of 45 SMMEs in Dr JS Moroka municipality in Mpumalanga Province. Phenya (2011) found that a majority of respondents lacked financial management skills given their lack of relevant experience and/or the relevant tertiary education. In deed 44% of owners/managers indicated that they had never worked prior to starting or joining the SMMEs and an additional 24% of the respondents' previous work was unskilled. Only 9% of the respondents' previous work was at a professional level.

It is therefore not surprising that the SMMEs that Phenya (2011) sampled lacked proper accounting systems given that their owner/managers lacked the requisite knowledge to prepare cash budgets, compile and analyse financial statements, prepare a business plan or plan for profit and cash. In fact, only 8% of the owner/managers could plan for profit and cash, 57% and

81% had little or no understanding of profit and cash planning respectively. Nonetheless, some of them knew how to manage working capital, but still needed training to improve their skills. Phenya's study was, however, conducted in one municipality in Mpumalanga province. Accordingly, its findings may not be generalisable to SMEs operating in other provinces such as the Western province.

# 2.8 GAPS IDENTIFIED IN THE REVIEW OF THE PRIOR LITERATURE

From the review of the prior literature in this chapter, the following research gaps have been identified:

- most of the studies reviewed were conducted outside South Africa, hence their findings may not .generalisable to the South African context;
- out of the few South African Studies reviewed, none was conducted in the Western Province but rather in other provinces and in small areas, a situation that could undermine the generalisability of their findings to the SMEs located in the Western Province in general and in the Cape Metropole in particular;
- some of the studies were conducted more than five years ago, therefore their findings not to be valid at present;
- some of the studies were conducted among large companies, operating in other sectors other than FMCG sector; accordingly their findings may not be generalisable to SMEs operating in the FMCG sector;
- many of the studies did not focus on MATs; instead they investigated varying issues related to accounting in general;
- other studies only focused on one MAT and thus did not cover the three MATs investigated in this study;
- some of the studies were in form of a case study, or employed a limited sample size, a scenario that undermined the generalisability of their findings to South African SMEs;
- some of the findings of the prior studies appear to contradict each other.

From the above knowledge gaps identified in the prior literature, the following research questions still remain unanswered:

- 1. what types of MATs are used by SMEs?
- 2. for what purpose are MATs used by SMEs?
- 3. what are the perceptions of the decision-makers of the SMEs regarding the effectiveness of the MATs currently used?
- 4. what factors may inhibit the SMEs from using MATs?

The above unanswered questions suggest a need for a more recent South African study to fill the knowledge gap in the prior literature. This study attempts to fill the knowledge gap by seeking answers to the above questions.

# 2.9 SUMMARY AND CONCLUSION

This chapter sought to describe and summarise the prior studies conducted on the usage of MATs by SMEs. The chapter commenced with the definition of management accounting, the three MATs that are the subject of this study, namely budgeting tools, performance measurement tools and pricing tools, as well as the definition of SMEs and the description of their importance to the South African economy.

The chapter then reviewed the prior studies conducted in various countries on the types of MATs employed by SMEs, which revealed a high uptake of traditional budgets such as cash budgets, sales budgets, purchases budgets, production budgets and capital budgets among others, which were also perceived as important. The reviews also revealed a high uptake of traditional budgeting processes or methods such as incremental budgeting. By contrast, the review revealed a low usage of the more modern budgeting methods such as ABB, ZBB, beyond budgeting and flexible budgeting. The review further revealed that the usage of different types of budgets did not vary among similarly sized enterprises in different countries; however, the frequency of usage and types of budgets used seemed to vary according to size, with the larger enterprises preferring more sophisticated budgets and using budgets more frequently.

As far as the usage of performance-measurement tools is concerned, the review of the prior literature revealed that most SMEs preferred financial measures instead of non-financial

measures. Among the financial measures that were more commonly used included cash flows, profits, return on investment. Notwithstanding the low usage of non-financial performance measures, some of these measures were perceived to be more important and thus were used more commonly than others. Among the most used non-financial measures included customer satisfaction surveys, customer complaints and staff turnover. Nevertheless the usage of financial and non-financial measures was not balanced as the former was preferred.

With regard to the usage of pricing tools, the review of the prior studies revealed that by far the most commonly used pricing technique was cost-plus pricing or mark-up pricing and discriminatory pricing. The usage of other pricing techniques was mixed, with some studies revealing widespread usage but others indicating low usage. The techniques which the prior studies indicated a mixed usage included market sensitive pricing by matching the competitors' prices, pricing according to a customers' needs and contribution margin pricing.

Chapter Two further reviewed the prior studies that had investigated the purpose for which MATs are used. In this regard, the chapter revealed MATs were used for diversified purposes depending on the tool in question. Budgets for instance were commonly used for planning, controlling and evaluating performance, as well as for developing strategies. Performance measurement tools were used for evaluating product and customer profitability, competitor analysis and industry analysis. Whereas pricing tools or techniques were used for pricing decisions, product mix decisions, product profitability analysis and so on.

Also reviewed in this chapter were the prior studies on the perceptions of SMEs regarding the effectiveness of the MATs employed by these entities. The review of these studies reveal contradicting results as some studies revealed a widespread dissatisfaction with the MATs whereas others lauded the benefits derived from the tools. In addition, some studies appeared to confirm the benefits derived from the tools but also acknowledged the challenges related to the uptake of the tools.

Regarding the factors that inhibit SMEs from using MATs, the review of the prior studies in this chapter revealed various factors. Key among these was the perception that MATs were of little value, largely irrelevant and costly given the small sizes of SMEs. Other factors cited included the difficulty to implement or even understand the tools, better source of information than the MATs, lack of resources such as time, requisite skills and experience to implement the tools.

The chapter concluded by identifying various gaps in the prior literature. Given the gaps in the prior literature, there is a need for a more recent research to investigate the usage of MATs in South Africa as little is known about the types of MATs that are currently employed, the purpose for which they are used, their effectiveness, or even if there are any factors that inhibit the usage of these tools.

The following chapter (Chapter Three) discusses the research design and methodology utilised to achieve the objectives of this study. The chapter also discusses the method used in collecting the data and the statistics employed for analysing the same.

# CHAPTER THREE RESEARCH DESIGN AND METHODOLOGY

# **3.1 INTRODUCTION**

This chapter describes the research design and methodology used in this study to address the following research objectives:

- 1. to determine the types of MATs used by SMEs;
- 2. to determine the purpose for which MATs are used by SMEs;
- 3. to determine the perceptions of the decision-makers of SMEs regarding the effectiveness of MATs currently used; and
- 4. to determine the factors that inhibit SMEs from using MATs.

To address the above objectives, a questionnaire survey methodology was deemed appropriate and thus employed. Accordingly, this chapter justifies the selection of the questionnaire survey method employed in this study for collecting data. It also discusses the sampling technique adopted in this study as well as the design of the questionnaire. The chapter also discusses the descriptive statistics employed to analyse and interpret the data collected.

This chapter proceeds with a discussion of the positivist research paradigm adopted in this study in Section 3.2. The chapter then justifies the questionnaire survey methodology adopted in this study in Section 3.3. This is followed by a discussion of the research population and sampling technique employed in this study in Section 3.4. Section 3.5 elaborates on the questionnaire design, followed by an overview of the pilot study conducted on the questionnaire in Section 3.6. Section 3.7 then presents the data collection process used in this study, followed by a brief description of the data analysis methods employed in this study in Section 3.8. Section 3.9 discusses the measures undertaken to ensure reliability and validity of the research instrument, while Section 3.10 outlines the limitations of the questionnaire survey methodology adopted. This is followed by a description of the ethical considerations of this research in Section 3.11. Lastly, Section 3.12 provides the summary and conclusion of this chapter.

#### 3.2 POSITIVIST RESEARCH PARADIGM

A positivist paradigm, which is based on the notion that there is an objective reality which can be measured using metrics that are independent of the researcher and the research instrument used, was adopted in this study for several reasons. To start with, it is a more objective approach than the interpretivism paradigm as it relies on quantitative data which is more reliable and verifiable than qualitative data that the latter paradigm (interpretivism) relies on (Matveev, 2002; Du Plooy-Cilliers, Davis & Bezuidenhout, 2014). In addition, the main objective of this study was to determine the extent to which the decision-makers of SMEs in the FMCG sector in the Cape Metropole employ MATs. This objective required quantitative data to determine the percentage of SMEs in the FMCG sector that employ the selected MATs. Accordingly, the positivist paradigm which by its very nature is quantitative was deemed more appropriate in addressing the objective. Furthermore, the positivist paradigm was adopted because it requires a well-defined structure that is consistent with the use of closed-ended questionnaires which are convenient for statistical analysis. Besides, given its quantitative nature, the positivist paradigm allows for a large sample to be drawn from the population, an aspect which increases the generalisability of research findings (Du Plooy-Cilliers, Davis & Bezuidenhout, 2014). What is more, the paradigm is appropriate, when time and resources are limited as was the case in this study, given that it is a fast and economical approach, thus was deemed suitable for this study.

#### **3.3 JUSTIFICATION FOR THE QUESTIONNAIRE SURVEY METHODOLOGY**

A questionnaire survey methodology was deemed appropriate for this study for various reasons. First, it is a faster, less expensive and more convenient way of obtaining data from a large number of respondents than personal interviews method (Al-Mubarak, 1997:178). Secondly, unlike personal interviews, it allows respondents to answer questions at their own convenience without the undue influence of the presence of a researcher which tends to introduce bias (Al-Mubarak, 1997:180). Thirdly, if closed-ended questions are used, the data collected in a questionnaire survey can be quickly and easily captured, quantified and analysed objectively by the researcher using a variety of statistical software packages. Fourthly, most SME owners/managers in the Cape Metropole are familiar with questionnaires and may have some experience completing questionnaires, thus are less likely to be apprehensive when

requested to participate in a questionnaire survey such as this one.

# **3.4 RESEARCH POPULATION AND SAMPLING TECHNIQUE**

## 3.4.1 Research population

The targeted population comprised FMCG SMEs operating in the Cape Metropole. These included retail businesses trading in pharmaceutical, food and beverage, household accessories and cosmetics products. Considering that there is no exhaustive comprehensive list of SMEs operating in the Cape Metropole, a target sample of 100 FMCG SMEs was set as such a sample size has been used successfully in other similar studies (Blanche, Durrheim & Painter, 2006; Bruwer, 2010:30). Accordingly, 100 representatives of SMEs were included in the sample. These comprised owners, managers and accountants all who were deemed to be the decision-makers of SMEs and thus were expected to be familiar with the usage of MATs in their businesses.

#### 3.4.2 Sampling technique

To select the 100 SMEs sampled, a purposeful sampling technique was employed. This method was deemed appropriate because of the following reasons: firstly, it entails a sample being drawn from the part of population that has the characteristics of the researcher's interest (De Vos et al., 2011:232). Secondly, this method was used because it is a fast and inexpensive way of collecting data if the units of analysis are located in areas accessible to the researcher as was the case in this study. Thirdly, the method is relatively easy to execute given that there are few rules to be followed on how a sample should be selected. Fourthly, due to the lack of comprehensive list of all SMEs operating in the Cape Metropole, the usage of other sampling methods such as the random sampling was not an option. Lastly, this method has been widely used by other researchers (Bruwer, 2010; Ndwiga, 2011).

# **3.5 DESIGN OF THE QUESTIONNAIRE**

#### 3.5.1 General description of the questionnaire design

The questionnaire was designed around the three MATs that were investigated in the study, namely budgeting tools, performance measurement tools and pricing tools. The questionnaire comprised eight pages including the consent letter (cover page). The latter

was used to highlight the purpose of the study and to reassure the respondents that any information they divulge would be used solely for the purpose of this study, be kept confidential and anonymous, and that there were no risks associated with participating in this study.

The questionnaire began with general questions on the types of MATs used, it the funnelled down to the purpose for which the MATs are used, then to the respondents" perception of the effectiveness of the MATs and the factors that could inhibit the usage of the MATs. Questions on respondents' profile and their businesses' profile were asked last so as not to obstruct the respondents from answering the questions that mattered most.

To encourage respondents to complete the questionnaire, sensitive questions such as those pertaining to income, revenue, payment of taxes were avoided. In addition, a deliberate effort was made not to ask any question that would directly link the response to a particular respondent or SME.

To further encourage the would-be respondents to partake in the survey, the questionnaire was designed to be user-friendly and comprised 17 closed-ended questions, with responses requested on either five-point Likert scale, yes/no answers or multiple-choice questions. Only in two questions was an option 'other' provided which required respondents to specify their answer. In so doing, the time duration required to complete the questionnaire was minimised to about 15 minutes.

## 3.5.2 Description of the specific sections of the questionnaire

The questionnaire used in this study comprised five sections (see Appendix B). These sections were numbered one to five.

# 3.5.2.1 Section One: Management accounting tools

Section one of the questionnaire dealt with the types of MATs used and was divided into three parts, namely Part A, Part B and Part C. Part A dealt with budgets, Part B focused on performance measurement tools, while Part C dealt with pricing tools.

## Part A

Part A of section one of the questionnaire was meant to determine the types of budgets used by SMEs. The part comprised three questions, namely questions one, two and three. Question one, "Does your business use budgets?" which required a 'yes' or 'no' response, was meant to determine whether the respondents' businesses used budgets or not and to filter those that would proceed to question two.

Question two, "How often does your business use the following types of budgets?" in the form of a five-point Likert scale [1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Frequently and 5 = Very Frequently], was meant to ascertain how frequently the respondents' businesses used the various types of budgets. These included sales, purchases, inventory, cash, capital expenditure, personnel and marketing budgets. The more frequently a budget was used the more extensively it was deemed to have been used.

Question three, "How often does your business use the following methods of budgeting?" in the form of a five-point Likert scale [1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Frequently and 5 = Very Frequently] was meant to ascertain how frequently the respondents' businesses used the various types of budgeting methods that ranged from flexible, fixed, incremental and Zero-based budgeting. The more frequently a budgeting method was used the more extensively it was deemed to have been used.

#### Part B

Part B of section one of the questionnaire was meant to determine the types of performance measurement tools used by SMEs. The part comprised two questions, namely questions four and five. Question four, "Does your business use performance measurement tools?" which required a 'yes' or 'no' response, was meant to determine whether the respondents' businesses used performance measurement tools or not and to filter those that would proceed to question five.

Question five, "How often does your business use the following performance measures?" was informed by the BSC framework. This question which was in form of a five-point Likert scale [1= Never, 2 = Rarely, 3 = Sometimes, 4 = Frequently and 5 = Very Frequently] was meant to

ascertain how frequently the respondents' businesses used two types of performance measures, namely financial measures and non-financial measures. Among the financial measures included in the questionnaire were sales growth, cash flow, operating income, net profit and return on investment. On the other hand, the non-financial measures included customers' complaints, customers' satisfaction, employee turnover rate, number of repeat customers, growth in the market share, number of returned products, hours of employees' training, employees' absenteeism rate, job satisfaction surveys, staff competency rates and response time to customers. The more frequently a performance measure was used the more extensively it was deemed to have been used.

#### Part C

Part C of section one of the questionnaire was meant to the type of pricing tools used by the sampled SMEs. Two questions were asked in this section, namely question six and seven. . Question six, "Does your business use pricing tools?" was meant to determine if the SMEs employ pricing tools or not. This question which required a 'Yes' or 'No' answer was also meant to determine those who were to proceed to question seven. Those who answered 'yes' were requested to proceed to question seven.

Question 7, "How often does your business use the following approach to determine prices?" was meant to determine the type of pricing tools employed by the sampled SMEs. The question which required response on a five-point Likert scale [1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Frequently and 5 = Very Frequently], was meant to determine how frequently the SMEs use the different types of pricing strategies. These strategies included adding a profit percentage on product cost, setting a different price for the same product in different market segments, comparing prices to those of competitors then pricing their products lower, changing prices according to the demand of a product and pricing a product to achieve a targeted rate of return on cost .The strategies also included selling a product at a price equal to the extra cost of ordering an extra unit of that product, allowing buyers to pay what they can afford, relying on gut-feeling and offering some products for free but charging high prices for others. Other strategies included in the question were charging a low price to deter new potential competitors from entering into the market, selling a product at a low price to increase sales of other more profitable products and charging different prices according to how early a customer places an order.

#### 3.5.2.2 Section Two: Management accounting reports

MATs are seldom used in their raw form. Instead they are typically summarised into management accounting reports for ease of use. Accordingly, section two of the questionnaire dealt with the preparation and usage of management accounting reports rather than the MATs themselves. The section comprised two questions, namely question eight and nine. Question eight, "Does your business prepare any of the following management accounting reports?", which required a 'yes' or 'no' response, was meant to determine whether respondents' businesses prepared budget reports, performance measurement reports and pricing reports or not, and to filter those that would proceed to question nine.

Question nine, "How often does your business use management accounting reports for the following purposes?" in the form of a five-point Likert scale [1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Frequently and 5 = Very Frequently], was meant to ascertain how frequently the respondents' businesses used the various types of management accounting reports for various purposes. Indirectly, this question was meant to determine the purpose for which MATs were used. The more frequently a particular management accounting report was used for a specific purpose the more extensively the MAT that comprise that report was deemed to have been used for that purpose.

# 3.5.2.3 Section Three: Perception of the effectiveness of management accounting tools used

Section three of the questionnaire dealt with the respondents' perception of the effectiveness of MATs used. The section comprised only one question, namely question ten, "What are your perceptions regarding the effectiveness of the following management accounting tools?" This question in form of a five-point Likert scale [1 = Very Ineffective; 2 = Ineffective; 3 = Neutral; 4 = Somewhat Effective; 5 = Very Effective] was meant to make the respondents to evaluate the effectiveness of the MATs used in their businesses. The more effective the MATs were perceived to be, the more extensively they were deemed likely to be used.

# 3.5.2.4 Section four: Factors that inhibit preparation of management accounting reports

Section four of the questionnaire focused on the factors that inhibit SMEs from preparing management accounting reports. Given that MATs are seldomly used in their raw form, but

are typically summarised into management accounting reports, this question was indirectly meant to determine the factors that inhibit SMEs from using the tools. The section was informed by the prior literature which had indicated a relatively low uptake of MATs. Section four comprised one question, namely question 11, "To what extent do you agree with the following statements about factors that inhibit your business from preparing management accounting reports?" This question in form of a five-point Likert scale [SD = Strongly Disagree, D = Disagree, N= Neither Agree Nor Disagree, A= Agree, SA= Strongly Agree] required respondents to indicate their degree of disagreement or agreement with four statements. Each of the four statements was linked to the three MATs (budgets, performance measurement and pricing tools) that this study focused on. The four statements were a lack of required resources, a lack of top management support, a lack of qualified personnel and a lack of awareness of the MATs. The more strongly the respondents agreed with a particular statement, the more inhibiting the factor named in the statement was deemed to be to the usage of a particular MAT linked to that statement.

## 3.5.2.5 Section five: Respondent and business profile

Section five of the questionnaire which comprised six multiple choice questions dealt with the background of the respondents as well that of their businesses. It included questions on the respondents' position in the business, experience, highest educational qualification and whether the qualification was accounting related. These questions were deemed necessary to ensure that only suitable candidates completed the questionnaire. It was also used to avail information that would be used in the analysis of data obtained from the other sections of the questionnaire, and to determine if the respondents' profile had any effect on the respondents' answers.

With regard to the business profile, section five covered questions on the industry in which the business operated as well as its number of employees. These questions were deemed necessary to ensure that only SMEs from the FMCG sector participated in the survey.

# 3.6 PILOT STUDY

Prior to the commencement of the actual study, a pilot study was conducted to ensure that the wording of the questionnaire was clear and understandable to the respondents. To this end, the questionnaires were critically reviewed by five academics with vast experience in questionnaire design. During this process, the academics were required to explain their understanding of each question and identify any possible weaknesses that would render the questionnaire not being user-friendly. The researcher also used this process to test the length of time it took for the academics to complete the questionnaire.

Based on the pilot study, some shortcomings were identified in the questionnaire which included; unclear instructions, leading questions, unclear questions, inconsistent questions and inclusion of two questions in one question. These shortcomings were corrected to the satisfaction of the academics and thus the questionnaire was deemed to be clear, concise, user-friendly and more importantly suitable for collecting data for this study.

# **3.7 DATA COLLECTION PROCESS**

During the data collection process, the researcher delivered the questionnaires by hand to the respondents who completed them at their own convenient time. The researcher went back on appointment to collect the completed questionnaires. The hand-delivery approach was deemed suitable as it gave the researcher an opportunity to explain and introduce the research topic to the respondents, an aspect that certainly increased the willingness of potential respondents to participate in the study. This approach was also beneficial because it saved time and increased the response rate.

Although the respondents were allowed to complete the questionnaires at their convenience, in some cases, the researcher waited while the respondents completed the questionnaires. In other cases, the researcher made several follow-up visits where a respondent had promised to complete the questionnaire but had failed to do so within the agreed time.

## **3.8 DESCRIPTION OF DATA ANALYSIS METHODS ADOPTED**

The quantitative data collected was captured and analysed using the Statistical Package for Social Sciences (SPSS) software version 22. This software was selected for various reasons: firstly, it assists a researcher to identify errors during data entry. Secondly it avails a faster and easier access to frequency, descriptive and inferential statistical functions given that it has these functions in pull-down menus. Thirdly, the SPSS has added functions that assist a researcher with the interpretation of statistical results. Fourthly, the SPSS provides a range of graphs and charts and aids a researcher to create complex graphs easily using the pull-down menus. Only descriptive statistics were used to analyse the data collected and are thus elaborated on below.

# 3.8.1 Descriptive statistics

Descriptive statistics provide simple summaries about the sample and the observations made. Some of the measures that are typically used to describe the sample include measures of central tendencies such as arithmetic mean, mode, median and measures of dispersion such as standard deviation and variance. For the purpose of this study, percentages and graphs were used to summarise the responses of the respondents. In addition, an arithmetic mean was used to summarise and rank the responses of respondents to all the five-point Likert scale questions. For these questions, a standard deviation was computed to determine the level of agreement of respondents' responses on a particular statement, with less than one indicating an agreement and more than one indicating a disagreement.

# 3.9 MEASURES TO ENSURE RELIABILITY AND VALIDITY

## 3.9.1 Reliability of the research instrument

Reliability refers to the consistency or the ability of a research instrument to yield the same result when it is administered on the same subject at different times. The reliability of the questionnaire was tested during the pilot testing stage. During the pilot testing stage, the questionnaire was administered to five different academics with vast experienced in questionnaire design and found to be simple, clear, understandable and thus should have been able to yield the same results if administered to the same respondents at different times (Maree, 2010:215).

Apart from the pilot test, a reliability test using Cronbach's Alpha Coefficient was conducted to test the internal reliability of the questionnaire, (Saunders, Lewis & Thornhill, 2007:369). The computed Cronbach's Alpha Coefficient for the items in the questionnaire was presented in the table below.

Table 3.1	Cronbach Alpha	Testing	(Source:	Own source)	
	Oronbaon / upria	resung	(000100.	Own Source	/

Key Items in the Questionnaire	Cronbach	Std.
	Alpha	Cronbachs
		Alpha
Q. 2. How often does your business use the following types of budgets?	0.802603	0.805358
Q.3. How often does your business use the following methods of budgeting?	0.768097	0.768831
Q. 5A. How often does your business use the following performance measures? Financial measures	0.872806	0.881983
Q. 5B. How often does your business use the following measures? Non-financial measures	0.913867	0.914450
Q. 7. How often does your business use the following approach to determine prices?	0.813387	0.812690
Q.8. Does your business prepare any of the following management accounting report?	0.502783	0.502316
Q. 9. How often does your business use management accounting reports for the following purposes?	0.957482	0.957439
Q.10. What are your perceptions regarding the effectiveness of the following management accounting?	0.733835	0.734013
Q. 11. To what extent do you agree with the following statements about factors that inhibit your business from preparing management accounting reports and using management accounting tools?	0.945800	0.946224
Average Cronbach Alpha Coefficient	0.812295	0.813700

Note: Average Cronbach Alpha Coefficient: Total Cronbach Alpha /Number of questions.

The computed average Cronbach's Alpha Coefficient for the items in the questionnaire was 0.812295 for the raw variables and 0.813700 for standardised variables. Hence, the questionnaires were deemed reliable and consistent as a Cronbach's Alpha Coefficient that is above 0.70 is considered as a good estimate of internal consistency and reliability (Bruwer, 2010: 40). (See Appendix C)

#### 3.9.2 Validity of the research instrument

Validity refers to the extent to which a research instrument measures what it is supposed to measure (internal validity) and whether it leads to a valid conclusion (external validity) (Leedy & Ormrod, 2005: 31). The two types of validity are expounded on below.

## 3.9.2.1 Internal validity

There are different types of internal validity. For the purpose of this study, only construct and content validity were deemed relevant and are thus discussed below.

# 3.9.2.2 Construct validity

Construct validity refers to the ability of a research instrument to actually measure the construct which are being investigated (Brynard & Hanekom, 2006:48).Essentially, construct validity answers questions such as: is the survey instrument measuring what it should be measuring? How relevant are the questions included in the questionnaire in achieving the purpose of the study? One way to ensure that construct validity is achieved is through a pilot study (Maree, 2007:216). In this study, the questionnaire was reviewed by five selected academics with vast experience in questionnaire design. The academics were asked to suggest any weaknesses in the questionnaire that undermined its external validity. Following the suggestions, the questionnaire was amended accordingly to ensure construct validity.

According to Rowley (2002), construct validity of a questionnaire can be enhanced by reducing the subjectivity of the questions in a questionnaire through linking them to the original research questions (Rowley, 2002). As recommended by Rowley (2002), the questions in the questionnaire used in this study were directly derived and linked to the first, second, third and fourth research sub-questions, an approach deemed to have enhanced construct validity.

#### 3.9.2.3 Content validity

Content validity is the extent to which all facets of a given construct are covered by a research instrument, which in this case was a questionnaire (Brynard & Hanekom, 2006:48). In essence, content validity requires that the survey instrument include all the items that represent a concept. In this study, the contribution of academics with vast experience in

questionnaire design was solicited on the content and adequacy of questions contained in the questionnaire. Following their input, the questionnaire was amended to include the questions that increased the content validity and erase the ones that reduced the same before drafting the final questionnaire.

# 3.9.2.4 External validity

External validity refers to the generalisability of the conclusion or findings of the study to other similar cases provided that the sample is representative in respect to the contexts, individual, times and settings (Leedy & Ormrod, 2005:1050). In general, achieving external validity requires that a random sampling method be employed to ensure that the sample is representative of the population (Brynard & Hanekom, 2006:48). Although this method was not employed due to a lack of a comprehensive list of the SMEs in the Cape Metropole, the fact that a target sample size of 100 SMEs was set enhanced the representativeness of the sample. Besides, the SMEs included in the survey were from different industries of FMCG ranging from pharmaceutical, food and beverages industry, cosmetics and household industry. Therefore external validity was deemed to have been achieved to some extent.

## 3.10 LIMITATIONS OF THE QUESTIONNAIRE SURVEY

The limitations of a survey instrument such as questionnaire are well documented in the literature. One of these limitations is non-response bias, which usually occurs when intended respondents do not to participate in the survey or decline to answer some of the questions due to certain characteristics they possess that differ from those who agree to answer the questionnaire or who answer all questions of the same. (De Vos et al., 2011). Non-response bias erodes the randomness of the sample thus resulting to a sampling bias that makes the sample to be unrepresentative of the population under study, an aspect that reduces the external validity of its findings (Vogt, 2005:210).

In order to reduce the effect of the non-response bias, the researcher approached different decision- makers, who comprised managers, accountants and owners of the businesses, both male and female, to participate in the survey. In addition, the respondents' profile was analysed to ensure that decision-makers with different characteristics had answered the

questionnaire. Furthermore, the researcher persuaded the decision-makers to take part in the survey even if they had little interest in any of the MATs surveyed.

As already mentioned, purposeful sampling method was employed to select the desired sample for the study. This could mean that the sample may not be representative of the population of this study since the sample was chosen non-randomly. This limitation was reduced by setting a target sample size of 100 SMEs from different industries that made up the FMCG sector (See Section 3.4.1). Another limitation associated with a questionnaire survey is a low response rate which may make the results not to be representative of the population (Saunders et al., 2007:98). To overcome this limitation, the researcher set a target sample size of 100 SMEs. In addition, the researcher visited some of the respondents more than twice to persuade them to complete the questionnaire. Furthermore, only closed- ended questions were included in the questionnaire and it was deliberately made short to encourage the respondents to partake in the survey.

Another limitation of using a questionnaire survey especially when it is administered to SMEs decision- makers is their reluctance to participate in a survey owing to their busy schedule. To overcome this, the researcher explained the purpose of the study to the respondents while handing over the questionnaire to them. In addition to this, the researcher visited some respondents severally and reassured them that any information they divulge will be kept confidential.

Although, only the managers, owners and accountants were deemed to be the decisionmakers of SMEs in this study in reality, they may not be the only decision-makers of SMEs. Therefore this study is limited as some potential decision-makers of SMEs were deliberately excluded. However, the selection of the three types of decision- makers mentioned above is justified as they are the ones likely to be familiar with the use of MATs such as budgets, performance measurement and pricing tools in their businesses.

Yet another limitation of this study is that it only focused on SMEs in the FMCG sector in the Cape Metropole. Its findings may therefore not be generalisable to SMEs in other sectors, or other parts of South Africa. In addition, the usage of only three MATs (budget, performance measurement, and pricing tools) was investigated in this study, thus its findings may not represent the extent to which SMEs use MATs in general.

Finally, some of the questionnaires that were hand - delivered to the respondents got lost or were returned incomplete (De Vos, 2011:188). In such cases, the researcher had to re-visit the respondents several times to re-distribute the questionnaire to them. In addition, a high cost was incurred in distributing and collecting the questionnaires.

#### 3.11 Ethical considerations

Bearing in mind that this research involved human participants as subjects of the study, an approval to conduct a research was obtained from Cape Peninsula University of Technology's Ethics committee before commencing data collection. The ethics committee requires that the respondents of such a study be protected from any potential negative repercussion that may arise as a result of participating in the research. The purpose of the study was explained to the respondents in the cover letter (See Appendix A).

#### **3.11.1 Informed Consent**

To comply with the requirements of the Ethics committee, the researcher explained to the respondents what the research entailed and emphasised that the respondents could withdraw from participating in the survey at any time without any negative repercussions. A consent letter was given to the participants who were requested to read and ask questions if they needed further clarity. Once the participants consent was obtained, the questionnaire was distributed to them.

#### 3.11.2 Confidentiality and anonymity

The participants were assured of anonymity as their personal details were not to be linked to their individual responses. They were also assured that the confidentiality of their personal details would not be compromised to a third party. In addition, the participants were informed that their information and responses would be kept confidential and the results of the survey reported anonymously in a manner to protect the identities of the participants (Maree, 2010; Brynard& Hanekom 2006). (See: Appendix A).

#### 3.12 SUMMARY

The objective of this chapter was to describe the research methodology used to collect data required to meet the objectives of this study. The chapter began with a discussion of the research paradigm adopted and justification of the questionnaire survey method used. The

chapter then discussed the research population and sampling technique employed in this study, followed by questionnaire design. The pilot test conducted on the questionnaire to ensure its clarity, conciseness and understandability was then discussed as well as the data collection process in form of a hand-delivered, self-administered questionnaire. The descriptive statistics used to analyse the data were then discussed, followed by the measures undertaken to ensure the reliability and validity of the research instrument. The limitations of the questionnaire survey methodology adopted were then discussed alongside the ethical considerations of this research.

In conclusion, the methodology discussed in this chapter is deemed to be appropriate to address the research objectives of this study. The next chapter (Chapter Four) provides the analysis and discussion of the results of this study.

### CHAPTER FOUR ANALYSIS AND DISCUSSION OF RESULTS

#### **4.1 INTRODUCTION**

The main aim of this chapter is to analyse and discuss the results of the questionnaire survey undertaken to investigate the usage of MATs by SMEs located in the Cape Metropole. The chapter commences with a re-statement of the specific research objectives in Section 4.2, which is followed by a discussion of the response rate in Section 4.3. Respondents' personal as well as their businesses' profile is discussed Section 4.4. Section 4.5 analyses and discusses the results on the usage of different types of MATs by SMEs, while Section 4.6 analyses and discusses the results on the purpose for which MATs are used by SMEs. Section 4.7 analyses and discusses the results on the perceptions of the decision-makers of SMEs regarding the effectiveness of the MATs that are currently used, followed by the analysis and discussion of the possible factors that inhibit SMEs from using MATs in Section 4.8. Lastly, Section 4.9 provides the summary and conclusion of the chapter.

#### **4.2 RESTATEMENT OF RESEARCH OBJECTIVES**

The main purpose of this study was to determine the extent to which the decision-makers of SMEs in the Fast Moving Consumer Goods (FMCG) sector in the Cape Metropole use MATs. To achieve this purpose the following research objectives were formulated:

- to determine the types of MATs used by SMEs;
- to determine the purpose for which MATs are used by SMEs;
- to determine the perceptions of the decision-makers of SMEs regarding the effectiveness of MATs; and
- to determine the factors that inhibit SMEs from using MATs.

#### 4.3 RESPONSE RATE

Given the lack of a comprehensive database of all SMEs operating in the Cape Metropole, a target sample of 100 SMEs was set. To achieve the targeted sample, 170 questionnaires were hand delivered to SMEs in the Cape Metropole using a purposeful sampling technique. The distribution of 170 questionnaires as opposed to just 100 was done in anticipation that not all recipients of the questionnaire would be willing to participate in the survey.

The questionnaires were distributed in two batches. From the first batch of 100 questionnaires that were distributed, 53 completed questionnaires were received back. From the second batch of 70 questionnaires that were distributed, 45 completed questionnaires were received back. Out of the total number of 98 completed questionnaires, only 92 were completed by SMEs. Six of the questionnaires were completed by respondents from micro enterprises and were thus excluded from the study as it only targeted respondents from SMEs. Therefore, out of the 170 questionnaires that were distributed, 92 usable questionnaires were returned, resulting in a response rate of 54.1% (See Table 4.1). This rate was higher than that of comparable studies (Abdel- Kader& Luther, 2006; Ahmad, 2012; Joshi, 2001) and conforms to Fowler's (1988) recommendation that a response rate should be above 20% to provide credible statistics about a population. The relatively high response rate achieved through hand delivery and collection of the questionnaire as well as constant follow-up also minimised non-response bias.

TABLE 4.1 RESPONSE RATE	(Source: Own source)
-------------------------	----------------------

	Number of respondents	Percentage (%)
Targeted respondents (total)	170	100%
Responses received	98	57.6%
Unusable responses (micro enterprises)	-6	-3.5%
Useable responses	92	54.1%

#### 4.4 RESPONDENTS' PERSONAL AND THEIR BUSINESSES' PROFILE

The respondents were asked in Section 5 of the questionnaire to provide their personal profile information relating to their position in the business, number of years of experience in the position, highest level of education and whether the education was accounting related. This

was done to ascertain whether they were decision-makers of SMEs and thus appropriate as respondents for this study. In addition, the respondents were asked to provide profile information of their businesses pertaining to the industry in which it operated and its number of employees, to ensure that only respondents from SMEs operating in the FMCG sector were included in the survey.

#### 4.4.1 Respondents' position in the business

With regard to the respondent's position in their business, the analysis of the results indicated that 63.33% of the respondents were managers, while 27.78% were the owners of their business (See Figure 4.1). Only 8.89% of the respondents were accountants. The foregoing confirmed that indeed the appropriate respondents had responded to the questionnaire as the survey only targeted decision-makers of SMEs who were defined as managers, owners and accountants.

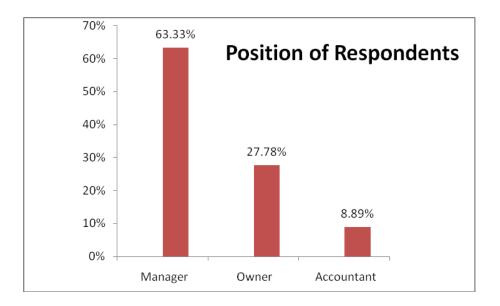


FIGURE 4.1: Respondents' position in the business (Source: Own source)

#### 4.4.2 Respondents' years of experience

As far as the respondents' years of experience in the business as either managers, owners or accountants is concerned, the analysis of the results indicated that 37.78% of the respondents had one to five years experience in their respective position (See Figure 4.2). Likewise, 37.78% had six to ten years' experience while 22.22% had more than ten years' experience. Only 2.22% had less than a year of experience. The above results suggest that 60% of the respondents had more than six years of experience in their respective positions and thus were expected to be knowledgeable about the operations of their business.

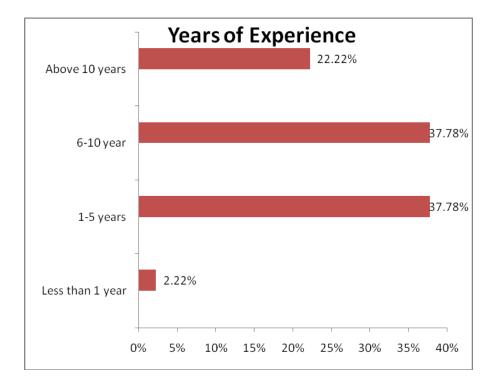


FIGURE 4.2: Respondents' years of experience (Source: Own source)

#### 4.4.3 Respondents' highest level of education

With respect to respondents' highest level of education, the analysis of the results indicated that 25.27% of the respondents had a bachelors' degree (See Figure 4.3). Similarly, 25.27% of the respondents had a matric qualification while 23.08% had a diploma. Of the respondents, 18.68% had attended some short courses, while 6.60% had a master's degree. Only 1.10%

had other qualifications. Accordingly, most of the respondents had some form of academic qualification.

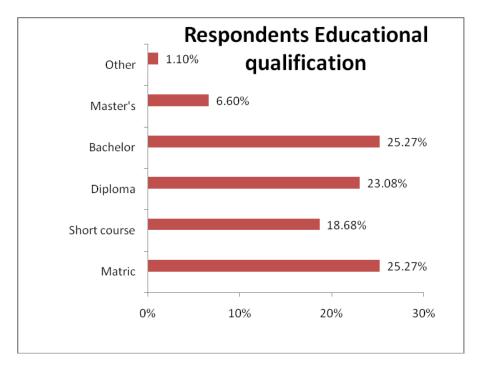


FIGURE 4.3: Respondents' highest level of education (Source: Own source)

#### 4.4.4 Whether respondents' highest level of education was accounting related

Concerning whether the respondents' highest level of education was accounting related, the analysis of the results indicated that 45.56% of respondents' highest level of education was accounting related, while 54.44% of the respondents' highest level of education was not (see Figure 4.4). Although a majority of the respondents' highest level of education was not accounting related, quite a significant percentage had been exposed to accounting and thus should have been familiar with the MATs, the usage of which was investigated in this thesis.

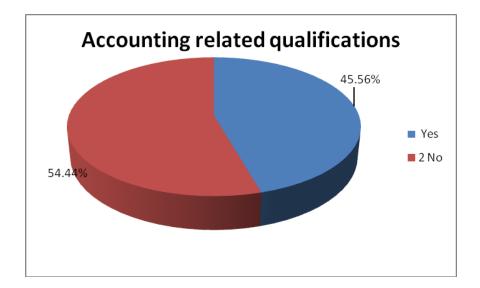


FIGURE 4.4: Respondents' accounting-related qualifications (Source: Own Source)

#### 4.4.5 Respondents' business industry

As far as the respondents' business industry is concerned, the results indicated that 51.65% of the respondents' businesses operated in the food and beverage industry, while 20.88% of the respondents' businesses operated in other unspecified FMCG industries (See Figure 4.5). Of the respondents' businesses, 10.99% operated in the household accessories industry, while 8.79% operated in the pharmaceutical industry. Only 7.69% of the respondents' businesses operated in dustry. The above results confirmed that the sampled respondents were from the FMCG sector and thus were the appropriate participants in this survey which only focused on this sector.

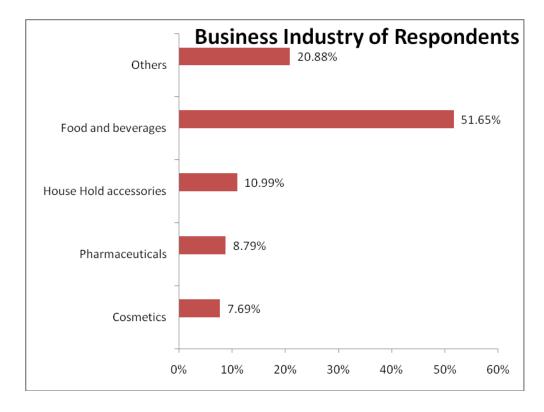


FIGURE 4.5: Respondents' business industry (Source: Own Source)

#### 4.4.6 Respondents' business number of employees

In relation to the number of employees of the respondents' businesses, 32.61% of the respondents indicated that their businesses had six to ten employees, while 28.26% indicated that their businesses had 11 to 20 employees. Of the respondents, 22.83% indicated that their businesses had 21 to 50 employees, while 16.30% indicated that their businesses had 51 to 100 employees. Therefore, 83.69% of the respondents were from small enterprises (with less than 50 but more than five employees), whereas 16.30% of the respondents were from medium enterprises (with 51 to 100 employees). Accordingly the respondents included in this study were all from SMEs which were the enterprises targeted by this study.

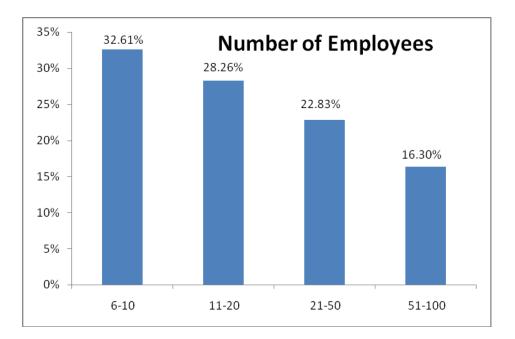


FIGURE 4.6: Respondents' number of employees (Source: Own source)

#### 4.5 TYPES OF MATs USED BY SMES

Section 1 of the questionnaire elicited responses on the usage of different types of MATs by SMEs. This section was divided in three parts, namely Part A, Part B and Part C. (See Appendix B)

#### 4.5.1 Usage of budgets by SMEs

In the first question of Part A of the questionnaire, the respondents were asked whether or not their businesses used budgets. As shown in Figure 4.7, 79.35% of the respondents indicated that their businesses used budgets while 20.65% indicated that their businesses did not use these tools. The above results are consistent with those of Ahmad (2014) and Armitage and Webb (2013) who found that 79% of Malaysian SMEs and 90% of the Canadian SMEs used budgets respectively. However, this finding differs with CIMA's (2009) who found that only four out of nine budgets were used by companies. A probable explanation for the difference is that CIMA's (2009) study focused on the usage of sophisticated budgets whereas SMEs which were the focus of the current study prefer simple/traditional budgets.

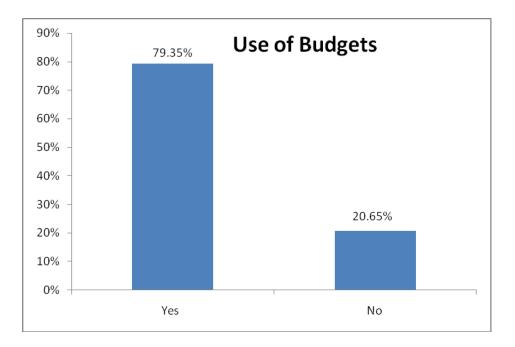


FIGURE 4.7: Respondents' usage of budgets (Source: Own Source)

#### 4.5.2 Frequency of usage of various types of budgets by SMEs

The second question of Part A of the questionnaire required the respondents that had indicated that their businesses used budgets to specify how often they had used various types of budgets. These included sales budgets, purchases budgets, inventory budgets, cash budgets, capital expenditure budgets, personnel budgets and marketing budgets. A five-point Likert scale was used with weightings of one for never, two for rarely, three for sometimes, four for frequently, and five for very frequently. Therefore the closer the mean was to five, the more often a specific budget was used.

For the sake of clarity and conciseness, the percentages of those who indicated that their business used any of the budgets either frequently or very frequently were added up together and reported as "percentage that used the budget frequently" in the third column of Table 4.2. In essence therefore, those who indicated that their business used a given budget sometimes or rarely were conservatively reported as having not used the budget, as the words 'sometimes' and 'rarely' suggest infrequent to almost non-usage of a budget. This approach is justified because it ensures that only those whose businesses that frequently use a certain type of budget were reported as such and it has also been used in prior studies (see Ahmad, 2012).

Number	Type of budget	Percentage that used	Respondents	Standard
		the budget frequently	n=73	Deviation
			Mean	
1	Sales budgets	83.57%	4.191781	0.907646
2	Purchases budgets	82.19%	4.287671	0.857637
3	Cash budgets	82.19%	4.219178	1.083289
4	Inventory budgets	67.13%	3.808219	1.186235
5	Capital expenditure			
	budgets	65.76%	3.69863	1.276768
6	Personnel budgets	58.91%	3.452055	1.323307
7	Marketing budgets	57.54%	3.383562	1.420389

#### TABLE 4.2: HOW OFTEN VARIOUS TYPES OF BUDGETS WERE USED BY SMEs

Scale: 1=never; 5=very frequently

As summarised in Table 4.2, the most frequently used type of budgets were sales budgets, purchases budgets and cash budgets with a usage rate of 83.57%, 82.19% and 82,19% respectively. The fourth most frequently used budgets was inventory budgets (67.13%), followed by capital expenditure budgets (65.76%), and then personnel budgets (58.91%). The least frequently used budgets were marketing budgets (57.54%). The means, more less affirmed the frequency of usage of the budgets as indicated above, although based on them (means), purchases budgets were the most frequently used tools (4.287671) followed by sales budgets (4.191781). The standard deviation of more than one among other budgets except sales and purchase budgets, revealed a disagreement among the respondents regarding the frequency of usage of the budgets.

The above results are consistent with the findings of Ahmad (2014) and Joshi (2001) who noted that the sales budget and cash flow budget were the most frequently used types of budgets by SMEs in Malaysia and India respectively.

#### 4.5.3 Frequency of usage of various methods of budgeting by SMEs

The third question of Part A of the questionnaire required the respondents that had indicated that their businesses used budgets to specify how often various methods were used to prepare budgets in their businesses. The methods included flexible budgeting, fixed budgeting, incremental budgeting and zero- based budgeting. A five-point Likert scale was used with weightings of one for never, two for rarely, three for sometimes, four for frequently and five for very frequently. Therefore the closer the mean was to five, the more frequently a budgeting method was used.

The percentages of the respondents who indicated that their business used any of the budgeting methods either frequently or very frequently were added up together, and reported as "percentage that used the budgeting method frequently" in the third column of Table 4.3. In essence, therefore, those who indicated that their business used a given budgeting method sometimes or rarely were conservatively reported as never having used the budgeting method, as the words 'sometimes' and 'rarely' suggest infrequent to almost non-usage of a budgeting method. This approach is justified because it ensured that only those whose businesses frequently use a certain type of budgeting method were reported as such, and it has also been used in prior studies (See Ahmad, 2012).

#### TABLE 4.3: HOW OFTEN VARIOUS TYPES OF BUDGETING METHODS WERE USED BY SMEs

Number	Budgeting method	Percentage that used	Respondents	Standard
		the budgeting method frequently	n=73	Deviation
			Mean	
1	Fixed budgeting	50.00%	3.214286	1.36087
2	Flexible budgeting,	47.14%	3.142857	1.354389
3	Incremental budgeting	27.14%	2.571429	1.335919
4	Zero-based budgeting	27.14%	2.385714	1.354465

Scale: 1=Never; 5=Very Frequently

As indicated in Table 4.3 above, the results show that the most frequently used budgeting method was fixed budgeting (50%), followed by flexible budgeting (47.14%), then incremental budgeting (27.14%), followed by zero-based budgeting (27.14%). The means echoed the results portrayed by the percentages. The standard deviation of above one on all the methods of budgeting suggests a disagreement among the respondents on the frequency of usage of these methods. The results of the current study are consistent with the findings of prior studies (Ahmad, 2012; Abdel-Kader & Luther, 2006; Joshi, 2001), which revealed that ZBB was the least used budgeting method in Malaysia, UK and India respectively.

#### 4.5.4 Usage of PMTs by SMEs

Part B of the questionnaire comprised questions four and five. In question four, the respondents were asked whether or not their businesses used performance measurement tools. As shown in Figure 4.8, 82.61% of the respondents indicated that their businesses used performance measurement tools while 17.39% indicated that their businesses did not use these tools. The above results are consistent with those of Abdel-Kader & Luther, (2006); Ahmad (2012); Waweru and Spraakman, (2012); and Naude (2007).

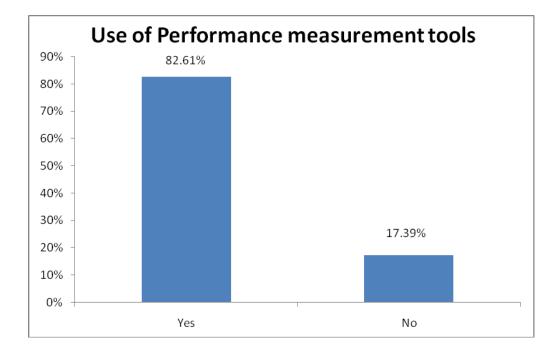


FIGURE 4.8: Usage of Performance Measurement Tools (Source: Own source)

## 4.5.5 Frequency of usage of different types of performance measurement tools by SMEs

In question five of Part B of the questionnaire, respondents who had indicated that their businesses used performance measurement tools were required to specify how often their businesses had used two types of performance measures, namely financial performance measures and non-financial performance measures. The financial performance measures included sales growth, cash flows operating income, net profit margin and return on investment. On the other hand the non-financial performance measures included customers' complaints, employees' turnover rate, percentage of repeat customers, growth in market share, percentage of returned products, average hours of employees' training, employees' absenteeism rate, job satisfaction survey, staff competency rate and response time to customers. A five-point Likert scale was used with weightings of one for never, two for rarely, three for sometimes, four for frequently, and five for very frequently. Therefore the closer the mean was to five, the more often a performance measurement tool was used.

For the sake of clarity and conciseness, the percentages of those who indicated that their business used any of performance measures either frequently or very frequently were added up together and reported as "percentage that used the performance measure frequently" in the third column of Table 4.4. In essence therefore, those who indicated that their business used a given performance measure sometimes or rarely were conservatively reported as never having used the performance measure as the words "sometimes" and "rarely" suggest infrequent to almost non-usage of a performance measure. This approach is justified because it ensures that only those whose businesses frequently used a certain type of performance measure were reported as such and it has also been used in prior studies (See: Abdel Kader& Luther, 2006; and Ahmad, 2012).

Number	Performance	Percentage that used	Respondents	Standard
	measurement tool	the performance	n=76	
		measurement tool		
		frequently		
	Financial Measures		Mean	
1	Sales growth	85.14%	4.216216	1.06334
2	Cash flows	85.13%	4.283784	0.986488
3	Operating income	79.73%	4.081081	1.213585
4	Net profit margin	79.73%	4.013514	1.26592
5	Return on investment	52.70%	3.378378	1.459055
	Non-financial measures			
1	Response time to customers	71.05%	3.815789	1.282815
2	Customer' satisfaction	69.74%	3.907895	1.179578
3	Percentage of repeat			
	customers	67.11%	3.868421	1.289363
4	Customers' complaints	59.21%	3.644737	1.303369
5	Employees' turnover rate	57.89%	3.526316	1.280351
6	Staff competency rate	51.32%	3.368421	1.412724
7	Average hours of employees' training	51.31%	3.328947	1.427241
8	Employees' absenteeism			
	rate	48.68%	3.302632	1.286025
9	Job satisfaction survey	48.68%	3.144737	1.363368
10	Growth in market share	47.37%	3.157895	1.523615
11	Percentage of returned products	39.47%	3.157895	1.286366

# TABLE 4.4: HOW OFTEN VARIOUS PERFORMANCE MEASUREMENT TOOLS WERE USED BY SMEs

Scale: 1=never; 5=very frequently (Source: Field Work)

As summarised in Table 4.4 above, financial performance measures were more frequently used than non-financial performance measures. Among the financial measures investigated, sales growth (85.14%) was the most frequently used measure of performance, followed by cash flows (85.13%), then operating income (79.73%) and net profit margin (79.73%). The least frequently used financial performance measure was return on investment (52.70%). The above results of the current study are consistent with the findings of Ahmad (2014) found that over 70% of the Malaysian SMEs frequently used financial performance measures such as sales growth, cash flow analysis and operating income. The current results are also in tandem with those of Joshi (2001) who observed that Indian businesses frequently used financial measures such as cash flow and operating income.

With regard to non-financial performance measures, the results of the current study revealed that response time to customers (71.05%) was the most frequently used measure followed by customers' satisfaction (69.74%), and then the percentage of repeat customers (67.11%). The fourth most frequently used non-financial performance measure was customers' complaints (59.21%), followed by employees' turnover rate (57.89%), then staff competency rate (51.32%) and average hours of employees' training(51.31%). The other lesser frequently used non-financial performance measures were employees' absenteeism rate (48.68%), job satisfaction survey(48.68%), growth in market share (47.37%) and percentage of returned products (39.47%).

It is interesting to note that response time to customers (a non-financial performance measure) was more frequently used than return on investment (a non-financial performance measure). The frequent usage of customer related non-financial performance measures is perhaps a reflection of the increasing customer focus that organisations are increasingly prioritising in order to obtain and maintain a competitive advantage.

The immediately preceding results of the current study concur with those of Ahmad (2014), Abdel-kader and Luther (2006) who found that measures related to customers were the most frequently usednon-financial performance measures and that employee job satisfaction rate was among the least frequently used non-financial performance measures.

#### 4.5.6 Usage of pricing tools by SMEs

Part C of the questionnaire, comprised questions six and seven. In question six, the respondents were asked whether or not their businesses used pricing tools/strategies. As illustrated in Figure 4.9, 82.61% of the respondents indicated that their businesses used pricing tools/strategies while 17.39% indicated that their businesses did not use these tools/strategies. The above results are consistent with those of Fabiani et al., (2005); Avlonitis and Indounas (2005;); and CIMA(2009) who found that most of the sampled businesses used pricing tools.

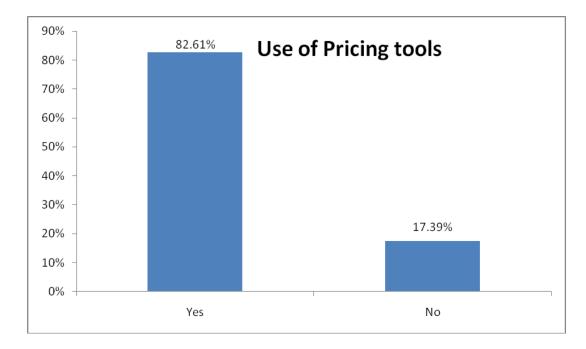


FIGURE 4.9: Usage of pricing tools/strategies (Source: Own Source)

#### 4.5.7 Frequency of usage of various types of pricing tools by SMEs

In question seven of Part C of the questionnaire, respondents' who had indicated that their businesses used pricing tools/strategies were required to specify how often their businesses had used various types of pricing tools/strategies. These included, cost-plus pricing, competitive pricing, market-oriented/discriminatory pricing, demand-based pricing, target pricing, marginal-cost/ incremental pricing, pay as you want pricing, gut feeling-based pricing, freemium pricing, predatory pricing, loss leader pricing and time-based pricing. A five-point Likert scale was used with weightings of one for never, two for rarely, three for sometimes, four

for often, and five for almost always. Therefore the closer the mean was to five, the more often a pricing tool/strategy was used.

For the sake of clarity and conciseness, the percentages of those who indicated that their businesses used any of the pricing tool/strategies either often or almost always were added up together and reported as "percentage that used the pricing tool/strategy frequently" in the third column of Table 4.5. In essence therefore, those who indicated that their business used a given pricing tool/strategy sometimes or rarely were conservatively reported as never having used the pricing tool/strategy, as the words "sometimes" and "rarely" suggest infrequent to almost non-usage of a pricing tool/strategy. This approach is justified because it ensures that only those whose businesses that frequently use a certain type of pricing tool/strategy are reported as such, and it has also been used in prior studies (See Abdel-Kader & Luther, (2006) and Avlonitis & Indounas, (2005).

Number	Pricing tools/strategies	Percentage that used the pricing tool/strategy often	Respondents n=76	Standard Deviation
			Mean	
1	Cost-plus pricing: adding a profit percentage on cost	85.34%	4.213333	1.069141
2	Market-oriented pricing: comparing prices to those of competitors then pricing products lower	65.34%	3.626667	1.333288
3	Target pricing: Pricing a product to achieve a targeted rate of return on cost	62.67%	3.626667	1.205543
4	Discriminatory pricing: setting a different price for the same product in different market segments	58.69%	3.306667	1.541965

TABLE 4.5: HOW OFTEN VARIOUS PRICING TOOLS/STRATEGIES WERE USED BY SMES

5	Demand-based pricing: changing prices according to the demand of a product	44%	3.173333	1.319022
		1170	0.110000	
6	Loss leader pricing: selling a product at a			
	loss to increase sales of other more			
	profitable products	37.34%	2.96	1.256765
7	Marginal-cost pricing: selling a product at a			
	price equal to the extra cost of ordering an			
	extra unit of that product	30.66%	2.88	1.251594
8	Pay as you want pricing: allowing buyers to			
	pay what they can afford	29.33%	2.666667	1.388498
9	Freemium pricing: offering some products			
	for free but charging high prices for others	22.67%	2.306667	1.273146
10	Predatory pricing: charging a low price to			
	deter new potential competitors from			
	entering into the market	20%	2.306667	1.173737
11	Gut feeling-based pricing: relying on gut			
	feeling when setting prices	14.67%	2.08	1.171278
12	Time-based pricing: charging different			
	prices according to how early a customer			
	places an order	12.1%	2.066667	1.200601
L			1	

Scale: 1=never; 5= very frequently (Source: Field work)

As summarised in Table 4.5, cost-plus pricing (85%) was the most frequently used pricing tool, followed by market-oriented pricing (65.24%), then target pricing (62.67%). The fourth most frequently used pricing tool was discriminatory pricing (58.67%). Among the least frequently used pricing tools were demand-based pricing (44%), followed by loss leader pricing (37.34%), then marginal-cost pricing (30.66%), followed by pay as you want pricing (29.33%). Others by order of frequency of usage included freemium pricing (22.67%), predatory pricing (20%), gut feeling-based pricing (14.67%) and finally time-based pricing (12.1%).

The immediately above results are consistent with those of CIMA, (2009) who found that over 60% of UK SMEs frequently used cost-plus pricing method to determine prices of their products. The results of the current study are also in tandem with those of Avlonitis and

Indounas (2005) who observed that over 58% of the Greek SMEs used cost-plus and over 53% used market pricing. The frequent usage of the cost plus pricing and market sensitivity pricing could be attributed to the fact that these methods are easier to use than other methods (Indounas, 2006).

The mean values of the above results affirmed the frequency of usage of pricing tools as cost plus pricing was the most frequently used tool (4.213333) followed by market sensitivity pricing (3.626667) and target pricing (3.626667). The standard deviation of more than one among the pricing tools revealed a disagreement among the respondents regarding the frequency of usage of the tools.

#### 4.6 PURPOSE FOR WHICH MATS ARE USED BY SMES

To determine the purpose for which MATs were used and bearing in mind that MATs are typically used in form of reports, Section 2 of the questionnaire, which comprised question eight and nine, required respondents to indicate whether their businesses prepared budgetary reports, performance measurement reports and pricing reports. In addition, the section required respondents to indicate the frequency that their businesses used the management accounting reports for various purposes.

#### 4.6.1 Preparation of budgetary, performance measurement and pricing reports

Question eight of the questionnaire required respondents to indicate whether or not their businesses prepared budgetary reports, performance measurement reports and pricing reports. As shown in Figure 4.10, 64.13% of the respondents indicated that their businesses prepared budgetary reports, while 35.47% indicated that their businesses did not prepare budgetary reports. With regard to performance measurement reports, 70.65% of the respondents indicated that their businesses prepared these reports whereas 29.35% did not prepare performance measurement reports. Concerning pricing reports, 69.57% of the respondents said their businesses prepared these reports whereas 30.43% indicated their businesses did not prepare pricing reports. Accordingly, the reports that were prepared by most of the sampled SMEs were performance measurement reports. The above results were consistent with those of Ahmad, (2012); Xydia lobo, *et al.*, (2004); Abdel- Kader & Luther,

(2006) who revealed that majority of the respondents in the various surveys used these reports for various purposes.

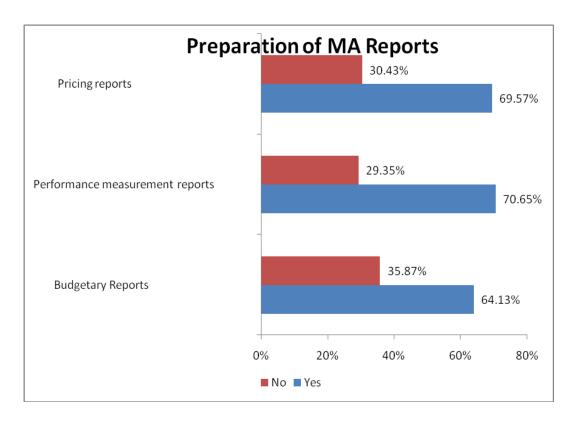


FIGURE 4.10: Preparation of management accounting reports (Source: own source)

## 4.6.2 Frequency of usage of management accounting reports for various purposes

Bearing in mind that MATs are seldomly used in their raw form but are rather in form of reports, respondents were asked in question nine to indicate and specify how often their businesses had used management accounting reports for various purposes. These purposes include for: future planning, control purposes, monitoring the business, measuring performance, motivating employees, improving communication developing tactical strategies, problem identification, improving decision-making, optimising the usage of resources and for the improvement of their business processes.

# TABLE 4.6: HOW OFTEN MANAGEMENT ACCOUNTING REPORTS WERE USEDFOR VARIOUS PURPOSES BY SMES

Number			Respondents	Standard
	management accounting reports were used	the management accounting report for this particular purpose often	n=92	Deviation
			Mean	
1	For monitoring the business	68.13%	3.758242	1.352698
2	For measuring performance	67.04%	3.67033	1.342096
3	For future planning	65.93%	3.527472	1.360887
4	For control purposes	62.64%	3.571429	1.367421
5	For improving decision-making	61.54%	3.538461	1.43223
6	For business process improvement	59.34%	3.450549	1.477714
7	For problem identification	59.34%	3.483516	1.493412
8	For optimising the use of resources	57.15%	3.340659	1.415939
9	For developing tactical strategies	52.75%	3.362637	1.464517
10	For improving communication	50.55%	3.285714	1.447494
11	For motivating employees	47.25%	3.307692	1.387983

Scale: 1=never; 5=very frequently (Source: Field work)

A five-point Likert scale was used with weightings of one for never, two for rarely, three for sometimes, four for frequently, and five for very frequently. Therefore the closer the mean was to five, the more frequently the management accounting reports were used for a particular purpose.

For the sake of clarity and conciseness, the percentages of those who indicated that their business used management accounting reports for a particular purpose either frequently or very frequently were added up together, and reported as "percentage that used the management accounting report for this particular purpose frequently" in the third column of Table 4.6. In essence therefore, those who indicated that their business used the management accounting reports for a particular purpose sometimes or rarely were conservatively reported as never having used the management accounting reports, as the words "sometimes" and "rarely" suggest infrequent to almost non-usage of management accounting reports for the given purpose. This approach is justified because it ensures that only those whose businesses frequently uses management accounting reports for a particular purpose are reported as such, and it has also been used in prior studies (See Ahmad, 2014).

As summarised in Table 4.7, management accounting reports were most frequently used for monitoring the business (68.13%), followed by measuring performance (67.04%), then future planning (65.93%). The fourth most frequent purpose for which management accounting reports were used was for controlling purposes (62.64%), followed by improving decision-making (61.54%), then problem identification (59.34%) and business process improvement (59.34%). The other purposes for which management accounting reports were used by order of frequency include for optimising the use of resources accounted (57.15%), for developing tactical strategies (52.75%) and for improving communication (50.55%). The least frequent purpose for which the reports were used was for motivating employees (47.25%).

The mean value of the above results also corroborated that the most frequent purpose for which management accounting reports are used was for monitoring of the business (3.758242), followed by measuring performance (3.67033), then control purposes (3.571429). The least frequent purpose for which the reports were used was for improving decision making (3.538461) and for future planning purposes (3.527472). The standard deviation of more than one suggests a disagreement among respondents on the purpose for which the reports are used.

The above results are consistent with those of Alleyne and Marshall (2011) who found that the three companies they surveyed in Barbados used MATs for the purposes of planning and controlling purposes. The results also concur with those of Abdel-kader and Luther (2006) who found that 84% of the UK business used MATs for the purposes of planning, and 74% used it

for control purposes. Likewise, the results are in tandem with those of Ahmad (2012) who found that 80% of Malaysian SMEs used MATs to measure and evaluate performance, while 76% of the SMEs used the tools for control purposes.

#### 4.7 PERCEVED EFFECTIVENESS OF THE MATS USED BY SMES

Section three of the questionnaire comprised only one question, namely question 10. In this question, respondents were asked to indicate their perceptions regarding the effectiveness of the budgetary tools, performance measurement tools and pricing tools used by their businesses. A five-point Likert scale was used with weightings of one for very ineffective, two for ineffective, three for neutral, four for effective and five for very effective. Therefore the closer the mean was to five, the more effective MATs perceived to be.

For the sake of clarity and conciseness, the percentages of the respondents who perceived MATs to be either effective or very effective were added up together, and reported as "percentage that perceived the MATs used to be effective" in the third column of Table 4.7. In essence therefore, those who were neutral with regard to their perceived effectiveness of MATs were conservatively reported as having perceived the tools to be ineffective, as the word neutral suggests a lack of certainty with regard to the effectiveness of the MATs. This approach is justified because it ensures that only those who perceived MATs to be effective are reported as such, and the similar approach has also been used in prior studies (See Ahmad, 2012).

Number	ΜΑΤ	Percentage that perceived the MATs used to be effective	Respondents n=92	Standard Deviation
			Mean	
1	Budgeting tools	53.84%	3.626374	1.121986
2	Performance measurement tools	59.34%	3.78022	1.062515
3	Pricing Tools	54.95%	3.78022	1.04139

Scale: 1=very ineffective; 5=very effective (Source: Field work)

As illustrated in Table 4.7, PMTs were perceived to be the most effective MATs (59.34%), followed by pricing tools (54.95%), and then the budgetary tools (53.84%).

The results of the current study agree with those of Alleyne and Marshall (2011), who found that three Barbadian sister companies they sampled perceived the use of MATs to be very effective. In addition, the current study's results concur with those of Abogun and Fagbemi (2011) who revealed that MATs were effective for the purpose of planning and controlling.

The means value of the above results affirmed the MATs percieved to be most effective were PMTs (3.78022), followed by pricing tools (3.78022), and then budgeting tools (3.626374). The standard deviation of above one showed that there was a disagreement among the SMEs regarding the perceived effectiveness of MATs.

#### 4.8 FACTORS THAT INHIBIT THE USAGE OF MATS

Section four of the questionnaire comprised only one question, namely question 11. In this question, respondents were asked to indicate the extent to which they agreed with twelve statements about factors that inhibit their businesses from preparing management accounting reports. The preparation of the latter was used as a proxy for the usage of MATs as it is only when the reports are prepared that the MATs can be used. The statements which were duplicated three times for each of the tool under study, namely budgeting tools, performance measurement tools and pricing tools/strategy included: a lack of required resources such as computers, a lack of top management support, a lack of qualified personnel and a lack of awareness about MATs. A five-point Likert scale was used with weightings of one for strongly disagree, two fordisagree, three for neither agree nor disagree, four for agree and five for strongly agree.

For the sake of clarity and brevity, the percentages of the respondents who either agreed or strongly agreed to a particular statement were added up together, and reported as "percentage that agreed with the statement" in the third column of Table 4.8. In essence therefore, those who neither agreed nor disagreed to a statement were conservatively reported as having disagreed with the statement; as the words neither agree nor disagree suggest a reservation to agree with a statement. This approach is justified because it ensures that only those who agreed with a particular statement on factors that inhibit the preparation of management

accounting reports are reported as such, and it has also been used in prior studies (See Ahmad, 2012).

#### TABLE 4.8: FACTORS THAT INHIBIT THE USAGE OF MATS

Number	Factors that inhibit the	Percentage that agreed	Respondents	Standard
	usage of MATs	with the statement	n=92	Deviation
			Mean	
	Budgeting tools			
1	A lack of top management support	56.04%	3.318681	1.444369
2	A lack of qualified personnel	54.95%	3.241758	1.416888
3	A lack of required resources such as computers	49.45%	3.131868	1.462181
4	A lack of awareness about MATs	41.76%	3.076923	1.351795
	Performance measurement tools			
5	A lack of awareness about MATs	49.45%	3.153846	1.272994
6	A lack of qualified personnel	47.26%	3.120879	1.315169
7	A lack of top management support	43.96%	3.10989	1.294866
8	A lack of required resources such as computers	40.66%	2.901099	1.308561
	Pricing tools/strategies			
9	A lack of required resources such as computers	43.96%	2.967033	1.337083
10	A lack of top management support	42.85%	3.120879	1.323591
11	A lack of awareness about MATs	41.75%	3.076923	1.318507
12	A lack of qualified personnel	38.47%	3.054945	1.336352

Scale: 1=strongly disagree; 5=strongly agree (Source: field work)

#### 4.8.1 Factors that inhibit the respondents from using budgetary tools

With regard to budgeting tools, most respondents cited a lack of top management support (56.04%) as an inhibiting factor, followed by a lack of qualified personnel (54.95%), then a lack of required resources such as computers (49.46%) and lastly lack of awareness (41.76%) (See Table 4.8). These perceptions were also confirmed by the mean values which showed that a lack of top management support (3.318681) was perceived to be the most inhibiting factor, followed by a lack of qualified personnel (3.241758), then lack of required resources (3.131868) and a lack of awareness about budgets (3.076923). The standard deviation of more than one indicates that the respondents were in disagreement about the factors that inhibit SMEs from using budgeting tools.

The above results are to some extent consistent with those of Phenya (2011) who found that a lack of skills was one of the factors that inhibited the respondents from using budgets. The results however tend to differ with the findings of Mbonyane (2006) who found that that ignorance was one of the main inhibiting factors to the usage of budgets. The reason for the inconsistency could be attributed to the fact that Mbonyane's (2006) study was conducted among SMMEs in a small Township of Kagiso and thus are not representative of the SMEs in South Africa.

#### 4.8.2 Factors that inhibit the respondents from using PMTs

As far as PMTs are concerned, most respondents cited a lack of awareness (49.45%) as an inhibiting factor, followed by a lack of qualified personnel (47.26%), then a lack of top management support (43.96%), and a lack of required resources such as computers (40.66%) (See Table 4.8). The above results are further corroborated by the mean values which also showed that a lack of awareness (3.153846) was perceived to be the most inhibiting factor, followed by a lack of qualified personnel (3.120879), then a lack of lack of top management (3.10989), and lastly, a lack of required resources such as computers (2.901099). The standard deviation of more than one indicates that the respondents were in disagreement about the factors that inhibit SMEs from using PMTs.

The preceding results of the current study on the factors that inhibit SMEs from using PMTs are inconsistent with those of Al Smirat (2013) who found that a lack of resources was a key inhibiting factor to the usage of PMTs. The difference could be attributed to the fact that Al

Smirat's (2013) was conducted in Jordan and thus the factors inhibiting SMEs in that country could be different to those inhibiting South African SMEs given the vast support that South African SMEs get from Government.

#### 4.8.3 Factors that inhibit the respondents from using of pricing tools

Concerning pricing tools, most respondents cited a lack of required resources such as computers (43.96%), as an inhibiting factor, followed by a lack of top management support (42.85%), then a lack of awareness (41.75%) and lastly a lack of qualified personnel (38.48%). The mean values, with the exception of the mean for a lack of required resources (2.967033), tended to reflect the above results. Specifically, a lack of top management support (3.120879) was perceived to be the most inhibiting factor, followed by a lack of awareness about MATs (3.076923), then a lack of qualified personnel (3.054945). The standard deviation of more than one shows a disagreement among respondents on the factors that inhibit SMEs from using pricing tools.

The preceding results are somewhat consistent with those of Subasinghe and Fonseka (2009), who found that a lack of top management support was one of the main factors that inhibited Sri Lankan limited liability companies from using pricing tools. The preceding results however contrast those of Krumwiede and Augustine (2005) who found that a lack of training and skills were the main factors that inhibited SMEs from using pricing tools in Germany. The contrast could be attributed to the differences between Germany, a developed country that may require higher level of skills, when compared to South Africa an emerging country that requires relatively lower level skills.

#### 4.9 SUMMARY OF THE CHAPTER

The main aim of this chapter was to analyse and discuss the results of the questionnaire survey conducted to investigate the the extent to which MATs are employed by the SMEs in the Cape Metropole, South Africa. The chapter analysed and discussed the results on the types of MATs used by SMEs, the purposes for which MATs are used, the perceptions of decision-makers of SMEs regarding the effectiveness of the MATs currently employed by these entities and the factors inhibit SMEs from using MATs.

Concerning the types of MATs used by SMEs, 79.35% of the SMEs used budgeting tools, that ranged from sales budgets (83.57%), purchases budgets (82.19%), cash budgets

(82.19%), inventory budgets (67.13%), capital expenditure budgets (65.76%), personnel budgets (58.91%) and marketing budgets (57.54%). To prepare the budgets, most SMEs used fixed budgeting (50%) and flexible budgeting (47.14%) methods, as opposed to incremental budgeting (27.14%) and zero based budgeting (27.14%) methods.

Of the sampled SMEs, 82.61% used PMTs that varied that employed both financial and nonfinancial measures. Among the most popular financial performance measures used most frequently were sales growth (85.14%), cash flows (83.13%), operating income (79.73%), net profit margin (79.73%) and return on investment (52.70%). Notably, most of the popular nonfinancial performance measures used most frequently were related to customers. These included response time to customers (71.05%), customer satisfaction (69.74%), percentage of repeat customers (67.11%) and customer complaints (59.21%). The other non-financial performance measures used by order of frequency included employee turnover rate (57.89%), staff competency rate (51.32%), and average hours of employees' training (51.31%). The results also revealed that 82.61% of the sampled SMEs used pricing tools/strategies most popular of which was cost-plus pricing (85.34%), followed by market-oriented pricing (65.34%), then target pricing (62.67%) and then discriminatory pricing (58.69%).

As far as the purposes for which MATs are used is concerned, the results revealed that MATs were most frequently used for monitoring the business (68.13%), measuring performance (67.04%), future planning (65.93%), control purposes (62.64%), improving decision-making(61.54%) and business process improvement(59.34%). In addition, MATs were frequently used for problem identification (59.34%) and optimising the use of resources (57.15%). Other purposes for which the MATs were frequently used included for developing tactical strategies (52.75%), for improving communication and for motivating employees (47.25%).

With regard to the perceptions of decision-makers of SMEs regarding the effectiveness of the MATs currently employed, the results revealed that PMTs (59.34%) were perceived to be the most effective of the three MATs, followed by pricing tools (54.95%) then budgeting tools (53.84%).

Regarding the factors that inhibit SMEs from using MATs, the results revealed that different factors inhibited the usage of the three MATs. Specifically, the usage of budgeting tools was mostly inhibited by a lack of top management support (56.04%), followed by a lack of qualified

personnel (54.95%), then a lack of required resources such as computers (49.45%) and a lack of awareness about MATs (41.76%), in this case budgets.

The usage of PMTs by the sampled SMEs was mostly inhibited by a lack of awareness about MATs (49.45%), a lack of qualified personnel (47.26%), a lack of top management support (43.96%) and a lack of required resources such as computers (40.66%). The usage of pricing tools was mostly inhibited by a lack of required resources such as computers (43.96%), a lack of top management support (42.85%), a lack of awareness about MATs (41.75%) and a lack of qualified personnel (38.47%). The next chapter (Chapter Five) presents the summary and conclusion of this study.

## CHAPTER FIVE SUMMARY AND CONCLUSIONS

#### **5.1 INTRODUCTION**

This study aimed at determining the type of MATs (budgetary tools, performance measurement tools and pricing tools) used by SMEs in the Cape Metropole. The dearth of research on the usage of MATs by SMEs in South Africa motivated this study. To achieve the afore-mentioned aim, a questionnaire survey was conducted.

The purpose of this chapter is to summarise the key findings and draw conclusions on the types of budgetary tools, performance measurement tools and pricing tools used by the SMEs, the effectiveness of these tools and the factors that inhibit SMEs from using them. This chapter also provides the contributions of this study, its limitations and makes suggestions for further research.

The chapter commences with a restatement of the research problem and research objectives outlined in Chapter One, in Section 5.2. This is followed by a summary and conclusion of the literature review on on the usage of MATs presented in Chapter Two, in Section 5.3. Section 5.4 provides a summary and conclusion of the research design and methodology used in this study, presented in Chapter Three. Section 5.5 provides a summary and conclusion of the analysis and discussion of results of the study, presented in Chapter Four.

Section 5.6 presents the contribution and significance of this study while section 5.7 provides the limitations of the study. Section 5.8 makes suggestions for further research.

#### **5.2 CHAPTER 1 - RESEARCH PROBLEM AND OBJECTIVES**

The research problem addressed by this thesis is that SMEs in South Africa are perceived to be failing partly due to a lack of or ineffective use of MATs. Owing to the dearth of research of the usage of MATs by SMEs, this research was conducted to address the following research objectives:

- (1) to determine the types of MATs used by SMEs;
- (2) to determine the purpose for which MATs are used by SMEs;

- (3) to determine the perceived effectiveness of the MATs currently used by SMEs;
- (4) to determine the factors that inhibit SMEs from using MATs.

#### 5.3 CHAPTER2-SUMMARY AND CONCLUSION OF REVIEW OF PRIOR STUDIES ON THE USE OF MATS

Chapter Two sought to describe and summarise the prior studies conducted on the usage of MATs by SMEs. The chapter commenced with the definition of budgeting tools, performance measurement tools and pricing tools, as well as the definition of SMEs, and the description of their importance to the South African economy. The chapter then reviewed the prior studies conducted on: the types of MATs employed by SMEs, purpose for which the tools are used, the perceived effectiveness of the tools as well as the factors that inhibit these entities from using the tools.

The review revealed a high uptake of traditional budgets and traditional budgeting processes, but a low usage of the more modern budgeting methods. It also revealed a preference for financial performance measures as opposed to the non-financial ones. It further revealed that the most commonly used pricing technique was cost- plus pricing or mark-up pricing, and discriminatory pricing, while the usage of other pricing techniques was mixed, with some studies revealing widespread usage but others indicating low usage. Also revealed in the review is that MATs were used for diversified purposes depending on the tool in question. Budgets for instance were commonly used for planning, controlling and evaluating performance, as well as for developing strategies. Performance Measurement Tools were used for evaluating product and customer profitability, competitor analysis and industry analysis. Whereas pricing tools or techniques were used for pricing decisions, product-mix decisions, product profitability analysis and so on.

Regarding the perceived effectiveness of the MATs employed, the review revealed contradicting results, where some studies found wide-spread dissatisfaction with the MATs whereas others lauded the benefits derived from the tools. Some studies confirmed the benefits derived from the tools but also acknowledged the challenges related to the uptake of the tools.

Concerning factors that inhibit SMEs from using MATs, the review revealed various factors key among which was; the perception that MATs were of little value, largely irrelevant and costly,

difficult to implement or even understand. In addition some SMEs cited that they had better source of information than the MATs, lacked resources such as time and requisite skills as well as experience. The chapter concluded by summarising the various gaps in the prior literature which motivated the current study.

#### 5.4 CHAPTER 3- SUMMARY AND CONCLUSION OFRESEARCH DESIGN AND METHODOLOGY

Chapter Three of this study described the research design and methodology employed to collect data that was used to address the research objectives of this study. The chapter commenced by discussing the research paradigm adopted in the study and the justification for using a questionnaire survey methodology used for data collection. The chapter then described the research population and sampling technique employed in this study, the questionnaire design as well as the pilot study conducted before disseminating the questionnaires. The chapter then discussed the data collection process and data analysis methods employed in this study, followed by measures undertaken to ensure the reliability and validity of the research instrument. It then outlined the limitations of the questionnaire survey methodology adopted and described the ethical considerations of this research. The chapter then concluded by reiterating that the research methodology adopted in this study was deemed appropriate in addressing the research objectives of the study.

#### 5.5 CHAPTER FOUR-SUMMARY OF ANALYSIS AND DISCUSSION OF RESULTS

Chapter Four analysed and discussed the results of the questionnaire survey which addressed the four objectives of this study. The chapter commenced by reiterating the research objectives of this study. It then discussed the response rate and respondents' personal as well as their business' profile. This was followed by an analysis and discussion of the results on the usage of different types of MATs by SMEs, and the results on the purpose for which MATs are used by SMEs. Chapter Four also analysed and discussed the results on the perceived effectiveness of the MATs that are currently used by SMEs, as well as the results on possible factors that inhibit SMEs from using MATs.

#### 5.5.1 Population, response rate, respondents' and businesses' profiles

The population of this study comprised SMEs operating in the FMCG sector that are located in the Cape Metropole. A target sample of 100 SMEs was set, to achieve it, 170 questionnaires were distributed using a purposive sampling technique, out of which 92 usable questionnaires were returned. This resulted in a response rate of 54.1%, a rate considered higher than that of comparable similar studies (Abdel- Kader& Luther, 2006; Ahmad, 2012).

Of the respondents, 63.33% were managers, 27.78% were owners of their business, while 8.89% were accountants. In terms of respondent's years of experience in the above-mentioned positions, 60% had more than six years of experience in their respective positions. About 55% of the respondents had either a diploma, a bachelors' degree or a masters' degree. Of the qualifications held, 45.56% were accounting related. Given the above profile, respondents were expected to be knowledgeable about the operations of their businesses, particularly with regard to the usage of MATs by their businesses.

Concerning the industry of the respondents' businesses, 51.65% operated in the food and beverage industry, 20.88% in other unspecified FMCG industries, 10.99% in household accessories industry, while 8.79% operated in the pharmaceutical industry. Only 7.69% operated in the cosmetics industry. The foregoing confirmed that the sampled respondents were from the FMCG sector, thus were the appropriate participants as this survey only focused on the FMCG sector. With regard to the size of the sampled respondents' businesses, 83.69% were small enterprises (with less than 50 but more than 5 employees), while 16.31% were medium enterprises (with 51 to 100 employees). Accordingly the respondents included in this study were all from SMEs which were the enterprises that this study targeted.

#### 5.5.2 Types of MATs used by SMEs

#### 5.5.2.1 Budgets and budgeting methods used by SMEs

Concerning the usage of budgetary tools, the results revealed that 79.35% of the SMEs used these tools while 20.65% did not use the tools. Those that used budgets most frequently used sales budgets (83.57%), purchases budgets (82.19%) and cash budgets (82.19%). Other budgets used in order of frequency included inventory budgets (67.13%), capital expenditure budgets (65.76%), personnel budgets (58.91%) and marketing budgets (57.54%). The results also revealed that of the SMEs that prepared budgets, they most frequently used fixed budgeting (50%) and flexible budgeting (47.14%) methods, followed by incremental budgeting

(27.14%) and zero based budgeting (27.14%) methods.

#### 5.5.2.2 Performance measurement tools

As far as the usage of performance measurement tools is concerned, the results revealed that 82.61% of the sampled SMEs used these tools while 17.39% did not use the tools. Those that used performance measurement tools most frequently used financial performance measures as opposed to the non-financial performance measures. Among the most popular financial performance measures used most frequently were sales growth (85.14%), cash flows (83.13%), operating income (79.73%), net profit margin (79.73%) and return on investment (52.70%). Most of the popular non-financial performance measures used most frequently were related to customers. These included response time to customers (71.05%), customer satisfaction (69.74%), percentage of repeat customers (67.11%) and customer complaints (59.21%). The other non-financial performance measures used by order of frequency included employee turnover rate (57.89%), staff competency rate (51.32%), average hours of employees' training (51.31%), employees' absenteeism rate (48.68%) and job satisfaction survey (48.68%). The least popular non-financial performance measures used, by order of frequency were growth in market share (47.37%) and percentage of returned products (39.47%).

#### 5.5.2.3 Pricing tools

As was the case with the performance measurement tools, the results also revealed that 82.61% of the sampled SMEs used pricing tools/strategies while 17.39% did not use these tools/strategies. Of the SMEs that used pricing tools/strategies, the most popular tool/strategy based on frequency of usage was cost-plus pricing (85.34%), then market-oriented pricing (65.34%), followed by target pricing (62.67%) and then discriminatory pricing. Other tools/strategies used by the sampled SMEs by order of the percentage that frequently used them were demand-based pricing (44%), loss-leader pricing (37.34%), marginal-cost pricing (30.66%), pay as you want pricing (29.33%), freemium pricing (22.67%), predatory pricing (20%), gut feeling-based pricing (14.67%) and time-based pricing (12.1%).

#### 5.5.3 Purpose for which MATs are used by SMEs

With regard to the purpose for which MATs were most frequently used for by the sampled SMEs, the results revealed the tools were most frequently used for monitoring the business (68.13%), measuring performance (67.04%), future planning (65.93%), control purposes (62.64%), improving decision-making(61.54%) and business process improvement (59.34%). In addition, MATs were frequently used for problem identification (59.34%) and optimising the use of resources (57.15%). Other purposes for which the MATs were frequently used included for developing tactical strategies (52.75%), for improving communication and for motivating employees (47.25%).

#### 5.5.4 Perceived effectiveness of the MATs currently used by SMEs

With respect to the perceived effectiveness of the MATs used by the sampled SMEs, results revealed that performance measurement tools (59.34%) were perceived to be the most effective of the three MATs, followed by pricing tools (54.95%) then budgetary tools (53.84%).

#### 5.5.5 Factors that inhibit SMEs from using MATs

Regarding the factors that inhibit SMEs from using MATs, the results varied depending on the MAT in question. As far as budgetary tools are concerned, the factors that inhibited SMEs from using these tools were a lack of top management support (56.04%), a lack of qualified personnel (54.95%), a lack of required resources such as computers (49.45%) and a lack of awareness about MATs (41.76%). With respect to performance measurement tools, the factors that inhibited SMEs from using these tools were a lack of awareness about MATs (49.45%), a lack of qualified personnel (47.26%), a lack of awareness about MATs (49.45%), a lack of qualified personnel (47.26%), a lack of top management support (43.96%) and a lack of required resources such as computers (40.66%). Concerning pricing tools/strategies, the factors that inhibited SMEs from using these tools were a lack of required resources such as computers (42.85%), a lack of required resources such as computers (42.85%), a lack of awareness about MATs (41.75%) and a lack of top management support (42.85%), a lack of awareness about MATs (41.75%) and a lack of qualified personnel (38.47%).

### **5.6 CONTRIBUTION AND SIGNIFICANCE OF THE STUDY**

### 5.6.1 Contribution of the study

This study makes several contributions to the MATs literature. It is the first study to investigate

the usage of budgetary tools, performance measurement tools and pricing tools by SMEs in the FMCG sector in the Cape Metropole. It therefore fills in the gap in knowledge by uniquely investigating three key MATs that are critical for the survival of SMEs but that up till now had been neglected by research.

Secondly, this study provides a unique insight into the usage of MATs by SMEs in the South African context, the purpose for which they are used, the perceived effectiveness of the tools and the factors that inhibit SMEs from using these tools. Given that prior studies, which were mostly conducted in other countries, have lamented the lack of usage of these tools by SMEs, this study provides unique empirical evidence in a different country's context, namely South Africa, on the state of art of the usage of these tools.

Thirdly, unlike the prior South African studies which examine the usage of one MAT at a time, the current study examines the usage of three key MATs at once, namely budgetary tools, performance measurement tools and pricing tools. It therefore provides insight on the usage of these tools as a collective instead of the silo approach common in the prior studies that has resulted to sub-optimal recommendations on the interventions that should be taken to increase SMEs' uptake of these tools.

#### 5.6.2 Significance of the study

The findings of this study should be of significance to the Department of Small Business Development tasked with promoting SMEs by providing financial and non-financial support services meant to create an enabling environment in which SMEs should thrive. The findings provide invaluable insights on the types of MATs that SMEs use and by default those that they do not use. The findings also provide the purposes for which MATs are used and by default the purposes for which these tools are not used. In addition the findings provide the perceived effectiveness of these tools as well as the factors that inhibit the usage of these tools by SMEs. These insights could be used to inform future endeavours of the Department when developing new interventions meant to improve the survival rate of the SMEs, as the current interventions appear to have failed to abate the continued failure these entities.

The findings of this study are particularly important to SMEs' decision-makers. The decision makers will be made aware of the need to use MATs to manage their businesses effectively.

With regard to budgets, the decision-makers will be made to appreciate the importance of inventory budgets, capital expenditure budgets, personnel budgets and marketing budgets, as well as budgeting methods such as flexible budgeting, incremental budgeting and zero based budgeting all which are currently under-utilised.

Concerning Performance measurement tools, the SMEs' decision-makers will be made to appreciate the importance of non-financial performance measures which are currently under utilised. In addition, the decision-makers will be made aware of the various pricing tools and strategies that can be deployed in different circumstances instead of over-relying on cost-plus pricing approach which has many weaknesses.

SMEs decision-makers will also be made aware of purposes for which MATs are used, the MATs perceived effectiveness of these tools, as well as the factors that inhibit these entities from employing these tools. This information could enable decision-makers to manage their SMEs more effectively, to enhance the survival rate of these entities.

The findings of this study are also significant to academics who may replicate this survey in other sectors and areas and even among micro entities in order to confirm the validity of the findings of this study. The academics could also adopt the research methodology and questionnaire employed in this research to explore the usage of other MATs left out in the current study. The current study also provides impetus for other South African and even African academics to undertake a similar study in other locations, which can contribute to a better understanding of the usage of MATs by SMEs and possibly lead to better interventions that can enhance the survival rates of these entities. Training institutions may embed the findings of this study in their curriculum by offering short courses on MATs to improve the usage of the tools among SMEs.

### **5.7 LIMITATIONS OF THE STUDY**

Despite the invaluable insights offered by this study, like any other studies, this study has its own limitations which are provided below;

 The findings of this study reflect the views of SMEs' decision-makers in the Cape Metropole only, which may not be generalisable to those of decision-makers in other regions of South Africa.

- This study investigated the usage of three MATs, namely budgetary tools, performance measurement tools and pricing tools/strategies. The findings therefore cannot be generalised to the usage of other MATs not included in this study.
- The selected sample for this study comprised more small enterprises than medium enterprises, an aspect that may have skewed its findings.
- The study made use of a self-administered questionnaire survey an approach which has well-documented pitfalls such as a low-response rate, unintended respondents completing the questionnaire, non-response bias as well as respondents skipping questions. However various precautions as discussed in Chapter Three were undertaken to mitigate the effects of these limitations.
- Only the owners, managers and accountants of SMEs in the FMCG sector operating in the Cape Metropole were invited to participate in the survey. These may not be the only decision-makers of SMEs in the sector.
- Although an inferential statistics analysis could have added more value to this study, the
  researcher elected to only conduct a descriptive statistics analysis given its simplicity and
  the need to summarise the vast data collected in this study. Besides the sample was not
  random, thus an inferential statistics were deemed less useful than descriptive statistics.

Notwithstanding the afore-mentioned limitations, the results of the current study contribute significantly to the understanding of the usage of MATs by SMEs. Therefore, the above limitations do not out-weigh the insights provided by this study, in a preciously under researched area of study.

#### **5.8 SUGGESTIONS FOR FURTHER STUDIES**

The above-mentioned limitations of this study present possible opportunities for further research which are summarised below.

 Firstly, this study assumes that owners, managers and accountant are the only decision-makers of SMEs, but in reality this is hardly the case. Future research could include other individuals who occupy decision-making positions in the SMEs apart from those mentioned above.

- Secondly, this study only focused on three MATs, future research could investigate the usage of other types of MATs such as profitability analysis tools, investment decision tools, costing tools used by SMEs.
- Thirdly, this study focused only on SMEs in the FMCG sector, in the Cape Metropole.
   Future research could focus on other sectors, other locations and may be even on micro enterprises excluded in this study.
- Fourthly, future research should use a bigger sample size to have more generalisable results or alternatively conduct a thorough case study to fully understand the usage of MATs within one or a few SMEs.
- Fifthly a comparative study could be conducted to compare the usage of MATs by SMEs in South Africa to the usage of the same by SMEs in other countries.
- Finally, a mixed methodology approach could be adopted by further studies investigating the usage of MATs, particularly with regard to the factors that inhibit SMEs from using MATs. Such an approach would use of open-ended questions to probe respondents in order to obtain a deeper insight than was possible in the current study which employed closed-ended questionnaires.

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### **APPENDICES**

### Appendix A: Consent Letter



# The usage of Management accounting Tools by the Small and Medium Enterprises.

Dear Participant,

You are invited to participate in a research study titled "The usage of Management Accounting Tools by Small and Medium Enterprises (SMEs) in the Cape Metropole." This study is being conducted by Chidinma Caroline Maduekwe, a Master's student at the Cape Peninsula University of Technology (CPUT). This study aims to determine the extent to which SMEs in the Cape Metropole use Management Accounting tools such as budgeting tool, performance measurement tools and pricing tools. Management Accounting tools are important because they assist businesses in planning, controlling, coordinating, evaluating and strategising their performance in an informed manner.

Because you are a decision-maker of a South African SMEs, your opinions are very valuable for this study. 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. While you will not receive any compensation for participating, the information collected in this study will hopefully contribute to the sustainability of the SMEs in South Africa.

For further inquiries, you may contact me via email adobioji2@gmail.com

Thank you for your time.

Signature -----

### Appendix B: Questionnaire

### QUESTIONNAIRE

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### Section 1 MANAGEMENT ACCOUNTING TOOLS

Part A: Budgeting Tools (Mark "X" in the appropriate box).

1. Does your business use budgets? Yes [ ] No [

If "yes", please proceed to question 2 and 3, if "No" please proceed to part "B".

Please use the following scale to answer question 2 and 3.

1= Never 2=Rarely 3= Sometimes 4= Frequently 5= Very Frequently

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

e	i. Sales budgets	1	2	3	4	5
k	<ul> <li>Purchases budgets</li> </ul>	1	2	3	4	5
C	e. Inventory budgets	1	2	3	4	5
C	I. Cash budgets	1	2	3	4	5
e	e. Capital expenditure budgets	1	2	3	4	5
f	Personnel budgets	1	2	3	4	5
ç	. Marketing budgets	1	2	3	4	5
3. H	low often does your business use the following methods o	fbudge	eting?	1		<u> </u>
e	a. Flexible budgeting	1	2	3	4	5
k	<ul> <li>Fixed budgeting</li> </ul>	1	2	3	4	5

c. Incremental budgeting	1	2	3	4	5
d. Zero based budgeting	1	2	3	4	5

Part B: Performance measurement tools (Mark "X" in the appro	opriate	box).			
4. Does your business use performance measurement tools?	Yes [	]	Nc	•[ ]	
If yes, please proceed to question 5, if "No" please proce	ed to	part "C	<b>`</b> "		
Use the following scale to answer question 5.					
1= Never 2 = Rarely 3 = Sometimes 4 = Frequently 5 = Ve	ry Freq	luently			
5. How often does your business use the following perform	nance	measu	ires?		
Financial Measures					
a. Sales growth	1	2	3	4	5
b. Cash flows	1	2	3	4	5
c. Operating income	1	2	3	4	5
d. Net profit margin	1	2	3	4	5
e. Return on investment	1	2	3	4	5
Non- financial measures	1	1	1	1	
a. Customers' complaints	1	2	3	4	5
b. Customers' satisfaction	1	2	3	4	5
c. Employee turnover rate	1	2	3	4	5
d. Number of repeat customers	1	2	3	4	5
e. Growth in the market share	1	2	3	4	5

f. Number of returned products	1	2	3	4	5
g. Hours of employees' training	1	2	3	4	5
h. Employees' absenteeism rate	1	2	3	4	5
i. Job satisfaction survey	1	2	3	4	5
j. Staff competency rate	1	2	3	4	5
k. Response time to customers	1	2	3	4	5
Part C. Pricing Tools (Mark "X" in the appropriate box)	).				1

6. Does your business use pricing tools/strategies? Yes [ ] No [ ]

If yes, please proceed to question 7, if No, please go to Section 2.

Use the following scale to answer question 7.

1= Never 2=Rarely 3=Sometimes 4=Frequently 5=Very Frequently

7. How often does your business use the following approach to determine prices?

a.	Adding a profit percentage on cost	1	2	3	4	5
b.	Setting a different price for the same product in different market segments	1	2	3	4	5
C.	Comparing prices to those of competitors then pricing your products lower	1	2	3	4	5
d.	Changing prices according to the demand of a product	1	2	3	4	5
e.	Pricing a product to achieve a targeted rate of return on cost	1	2	3	4	5
f.	Selling a product at a price equal to the extra cost of ordering an extra unit of that product	1	2	3	4	5

g.	Allowing buyers to pay what they can afford	1	2	3	4	5
h.	Relying on your gut feeling when setting prices	1	2	3	4	5
i.	Offering some products for free but charging high prices for others	1	2	3	4	5
j.	Charging a low price to deter new potential competitors from entering into the market	1	2	3	4	5
k.	Selling a product at a low price to increase sales of other more profitable products	1	2	3	4	5
I.	Charging different prices according to how early a customer places an order	1	2	3	4	5
Section	n 2. Management accounting report. Please mark "X" in t		•			
8.	Does your business prepare any of the following manage	jement	accou	inting r	reports	?
a.	Budgeting Reports Yes [ ] No [ ]					
b.	Performance measurement reports Yes [ ]	No [	]			
C.	Pricing reports Yes [ ] No	o [	]			
lf "	yes" to any of the above, please answer question 9 and $\dot{c}$	10, if "r	no" ple	ase go	to sec	ction 4.

Please	e use the following scale to answer question 9. Mark "X" i	n the b	oox. 1=	Never	2=Ra	arely	
3=Son	netimes 4=Frequently 5=Very Frequently.						
9. How often does your business use management accounting reports for the following purposes?							
a.	For future planning	1	2	3	4	5	
b.	For control purposes	1	2	3	4	5	
C.	For monitoring the business	1	2	3	4	5	
d.	For measuring performance	1	2	3	4	5	

e. For motivating employees	1	2	3	4	5
f. For improving communication	1	2	3	4	5
g. For developing tactical strategies	1	2	3	4	5
h. For problem identification	1	2	3	4	5
i. For improving decision-making	1	2	3	4	5
j. For optimising the use of resources	1	2	3	4	5
k. For business process improvement	1	2	3	4	5

Section 3: Your perception on the effectiveness of management accounting tools used in your business (Please mark "X" in the appropriate box).

Use the following scales to answer question 10

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

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

a. Budgeting tools	1	2	3	4	5
b. Performance measurement tools.	1	2	3	4	5
c. Pricing tools	1	2	3	4	5

Section 4. Factors that inhibit preparation of management reports (Please mark "X" in the appropriate box).

Please use the following scale to answer question 11

SD= Strongly Disagree, D = Disagree, N= Neither agree nor disagree, A= Agree, SA= Strongly Agree

11. To what extent do you agree with the following statements about factors that inhibit your

busine	ess from preparing management accounting reports?					
Budge	t Reports					
а.	A lack of required resources such as computers	SD	D	N	A	SA
b.	A lack of top management support	SD	D	N	A	SA
C.	A lack of qualified personnel	SD	D	N	A	SA
d.	A lack of awareness about management accounting tools	SD	D	N	A	SA
Perfor	mance Reports					
e.	A lack of required resources such as computers	SD	D	N	A	SA
f.	A lack of top management support	SD	D	N	A	SA
g.	A lack of qualified personnel	SD	D	N	A	SA
h.	A lack of awareness about performance measurement tools	SD	D	N	A	SA
Pricing	Reports					
i.	A lack of required resources such as computers	SD	D	N	A	SA
j.	A lack of top management support	SD	D	N	A	SA
k.	A lack of qualified personnel	SD	D	N	A	SA
I.	A lack of awareness about pricing tools	SD	D	N	A	SA

SECTION 5 - RESPONDENT AND BUSINESS PROFILE (Please mark "X" in the appropriate box)		
12. In what industry does your business operate in?		
a. Cosmetics	[	]

b. Pharmaceuticals	[	]
c. Household accessories	[	]
d. Food and beverages	[	]
e. If other, please specify	[	]
13. What is your position in the business?		
a. Manager	[	]
b. Owner	[	]
c. Accountant	[	]
14. How many years of experiencedo you have in the above position?		
Less than 1year [ ] 1-5years [ ] 6-10years [ ] Above 10 years [	]	
15. What is your highest level of education?		
Matric [ ] Short course [ ] Diploma [ ] Bachelor [ ] Master's [ ] Doctora	ate [	
other [ ], if other please specify:		
16. Was the above education accounting related? Yes [ ] No [ ]		
17. What is the number of employees in your business?		
1-5 [ ] 6-10 [ ] 11-20 [ ] 21-50 [ ] 51-100 [ ] above 100 [ ]		
Thank you for your participation. If you would like feedback on the findings of this study E-mail Caroline using the following E-mail address: adobioji2@gmail.com	/, pl€	ease

# Appendix C: Cronbach Alpha Coefficient Test

Dataset C:\\MaduekweChidinmaCaroline\Caroline Captured Data.NCSS								
Reliability Section Item Values								
	R2							
Variable Q2_a Q2_b Q2_c Q2_d Q2_e	Mean 4.191781 4.287671 3.808219 4.219178 3.69863	Standard Deviation 0.907645 0.857636 1.186235 1.083289 1.276768	Mean           5         22.849           5         22.753           23.232         22.821	32       5.08         43       5.02         88       4.84         92       4.97	al . <b>Dev.</b> 39944 27095 43439 14103 61978	<b>Alpha</b> 0.7963 0. 0.7820 0. 0.7840 0. 0.7843 0.	Corr Other Total Items 4152 0.2906 5289 0.3509 4962 0.4268 4927 0.3795 6976 0.5788	
Q2_f Q2_g Total	3.452055 3.383562	1.323307 1.420389	23.589	04 4.64 53 4.60	42304	0.7664 0.	5914 0.6584 5594 0.5440	
Cronbach's A	lpha 0.802603	Std. C	ronbachs Al	pha 0.8053	58			
Count Distrik Variable Q2_a Q2_b Q2_c Q2_d Q2_e Q2_f Q2_g Total		<b>1</b> 0 3 1 3 6 8 1 2	6 ( 3 1) 0 1	1 23 5 21 0 24 0 25 0 23	32 37 26 39 24 18 19			
Percentage I Variable Q2_a Q2_b Q2_c Q2_d Q2_e Q2_f Q2_g Total	Distribution So 0.0 0.0 4.1 4.1 8.2 10.9 16.4 6.2	1           20         8.2           20         4.1           11         13.7           11         5.4           22         12.3           26         16.4           14         12.3	2         8.22           1         13.70           0         15.0           8         8.22           3         13.70           4         13.70           3         13.70           3         13.70	)         31.51           7         31.51           2         28.77           0         32.88           0         34.25           0         31.51	43.84 50.68 35.62 53.42 32.88 24.66 26.03			

	Q2_a	Q2_b	Q2_c	Q2_d	Q2_e	Q2_f
Q2_a	1.000000	0.481250	0.357128	0.352172	0.254313	0.158088

Q2_b	0.481250	1.000000	0.423583	0.379670	0.384687	0.275434
Q2_c	0.357128	0.423583	1.000000	0.530341	0.447336	0.171017
Q2_d	0.352172	0.379670	0.530341	1.000000	0.419967	0.278714
Q2_e	0.254313	0.384687	0.447336	0.419967	1.000000	0.673625
Q2_f	0.158088	0.275434	0.171017	0.278714	0.673625	1.000000
Q2_g	0.254572	0.318614	0.242098	0.170266	0.524141	0.704508
Cronbach's Alpha	0.802603	Std. Cror	nbach's Alp	ha 0.80535	58	

	Q2_g	
Q2_a	0.254572	
Q2_b	0.318614	
Q2_c	0.242098	
Q2_d	0.170266	
Q2_e	0.524141	
Q2_f	0.704508	
Q2_g	1.000000	
Cronbach's Alpha	0.802603	Std. Cronbach's Alpha 0.805358

### Dataset C:\...\MaduekweChidinmaCaroline\Caroline Captured Data.NCSS

# **Reliability Section**

2		alues		If This Item is Omitted				
	R2	Standard	Total	Total		Coef	Corr	Other
Variable	Mean	Deviation	Mean	Std.Dev	,	Alpha <sup>-</sup>		
Q3 a	3.142857	1.354389	8.171429	3.32740		0.7588 0.		
Q3 b	3.214286	1.36087	8.1	3.23992		0.7207 0.		
Q3 c	2.571429	1.335919	8.742857			0.5774 0.		
Q3 d	2.385714	1.354465	8.928572			0.7690 0.		
Total			11.31429	4.15128		0.7681		
Cronbach's Al	pha 0.768097	Std. Cronk	oachs Alpha	0.768831				
Count Distrib	oution Section							
Variable		1 2	3	4	5			
Q3_a	1:		14	21	12			
Q3_b	1:		14	22	13			
Q3_c	2		18	13	6			
Q3_d	2		10	14	5			
Total	72	2 46	56	70	36			
Percentage D	) istribution Se	ction						
Variable		1 2	3	4	5			
Q3_a	17.1	4 15.71	20.00	30.00	17.14			
Q3_b	17.1	4 12.86	20.00	31.43	18.57			
Q3_c	31.4	3 15.71	25.71	18.57	8.57			
Q3_d	37.1	4 21.43	14.29	20.00	7.14			
Total	25.7	1 16.43	20.00	25.00	12.86			

	Q3_a	Q3_b	Q3_c	Q3_d
Q3_a	1.000000	0.423481	0.538952	0.222335
Q3_b	0.423481	1.000000	0.617242	0.292601
Q3_c	0.538952	0.617242	1.000000	0.629314
Q3_d	0.222335	0.292601	0.629314	1.000000
Cronbach's Alpha	0.768097	Std. Cror	nbach's Alpl	ha 0.768831

### Dataset C:\...\MaduekweChidinmaCaroline\Caroline Captured Data.NCSS

# **Reliability Section**

-	Item V	/alues			If This	Item is	Omitted		
	R2								
		Standa		Total	Total		Coef		Other
Variable	Mean	Deviat		Mean	Std.De		Alpha		
Q5_a	4.216216	1.0633		15.75676	4.1374		0.85220		
Q5_b	4.283784	0.9864		15.68919	4.1278		0.8376 (		
Q5_c	4.081081	1.2135		15.89189	3.8979		0.82130		
Q5_d	4.013514	1.2659		15.95946	3.9463	5	0.84490		
Q5_e	3.378378	1.4590	55	16.59459	3.8779		0.87420	).6231	0.4131
Total				19.97297	4.9212	23	0.8728		
Cronbach's A	lpha 0.872806	Std.	Cronba	achs Alpha	0.881983				
Count Distrik	oution Section								
Variable		1	2	3	4	5			
Q5_a		4	2	5	26	37			
Q5_b		1	6	4	23	40			
Q5_c		6	3	6	23	36			
Q5_d		7	4	4	25	34			
Q5_e	1	2	10	13	16	23			
Total	3	0	25	32	113	170			
Percentage D	Distribution Se	ection							
Variable		1	2	3	4	5			
Q5_a	5.4	1	2.70	6.76	35.14	50.00			
Q5 b	1.3	5	8.11	5.41	31.08	54.05			
Q5 <sup>c</sup>	8.1	1	4.05	8.11	31.08	48.65			
Q5 d	9.4	6	5.41	5.41	33.78	45.95			
Q5_e	16.2	2 1	3.51	17.57	21.62	31.08			
Total	8.1	1	6.76	8.65	30.54	45.95			

	Q5_a	Q5_b	Q5_c	Q5_d	Q5_e
Q5_a	1.000000	0.685073	0.665612	0.506625	0.467483
Q5_b	0.685073	1.000000	0.735712	0.556322	0.562035
Q5_c	0.665612	0.735712	1.000000	0.712607	0.531716
Q5_d	0.506625	0.556322	0.712607	1.000000	0.568264
Q5_e	0.467483	0.562035	0.531716	0.568264	1.000000
Cronbach's Alpha	0.872806	Std. Cror	nbach's Alp	ha 0.88198	33

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# **Reliability Section**

Reliability Section								
	Item Values			If This Item is Omitted				
	R2							
		Standard	Total	Total	Coef Corr Other			
Variable	Mean	Deviation	Mean	Std.Dev.	Alpha Total Items			
Q5B_a	3.644737	1.303369	34.57895	9.885023	0.9080 0.6278 0.6292			
Q5B b	3.907895	1.179578	34.31579	9.868752	0.9038 0.7218 0.7188			
Q5B c	3.526316	1.280351	34.69737	9.868495	0.9067 0.6554 0.5561			
Q5B_d	3.868421	1.289363	34.35526	9.819306	0.9049 0.6914 0.6025			
Q5B_e	3.157895	1.523615	35.06579	9.601854	0.9034 0.7202 0.6637			
Q5B_f	3.157895	1.286366	35.06579	9.798415	0.9039 0.7111 0.5825			
Q5B_g	3.328947	1.427241	34.89474	9.730473	0.9055 0.6794 0.6036			
Q5B_h	3.302632	1.286025	34.92105	9.999684	0.9122 0.5421 0.4755			
Q5B_i	3.144737	1.363368	35.07895	9.808517	0.9067 0.6552 0.6091			
Q5B_j	3.368421	1.412724	34.85526	9.740232	0.9054 0.6803 0.6563			
Q5B_k	3.815789	1.282815	34.40789	9.848421	0.9059 0.6709 0.6303			
Total			38.22368	10.75125	0.9139			
Cronbach's A	lpha 0.913867	Std. Cronb	achs Alpha 0.	914450				

••••••••••••••••••••••••••••••••••••••		_
Count Distribution	n Saction	

Count Distribution	Section				
Variable	1	2	3	4	5
Q5B_a	5	13	13	18	27
Q5B_b	3	9	11	22	31
Q5B_c	6	13	13	23	21
Q5B_d	5	9	11	17	34
Q5B_e	16	13	11	15	21
Q5B_f	7	20	19	14	16
Q5B_g	12	11	14	18	21
Q5B_h	8	14	17	21	16
Q5B_i	11	18	10	23	14
Q5B_j	11	11	15	17	22
Q5B_k	6	9	7	25	29
Total	90	140	141	213	252
Percentage Distrib	ution Sectio	on			
Variable	1	2	3	4	5
Q5B_a	6.58	17.11	17.11	23.68	35.53
Q5B_b	3.95	11.84	14.47	28.95	40.79
Q5B_c	7.89	17.11	17.11	30.26	27.63
Q5B_d	6.58	11.84	14.47	22.37	44.74
Q5B_e	21.05	17.11	14.47	19.74	27.63
Q5B_f	9.21	26.32	25.00	18.42	21.05
Q5B_g	15.79	14.47	18.42	23.68	27.63
Q5B_h	10.53	18.42	22.37	27.63	21.05
Q5B_i	14.47	23.68	13.16	30.26	18.42

Q5B j	14.47	14.47	19.74	22.37	28.95
Q5B_k	7.89	11.84	9.21	32.89	38.16
Total	10.77	16.75	16.87	25.48	30.14

### **Correlation Section**

	Q5B_a	Q5B_b	Q5B_c	Q5B_d	Q5B_e	Q5B_f
Q5B_a	1.000000	0.706923	0.377208	0.487528	0.491905	0.590582
Q5B_b	0.706923	1.000000	0.615202	0.675729	0.534938	0.572089
Q5B_c	0.377208	0.615202	1.000000	0.559419	0.551471	0.507462
Q5B_d	0.487528	0.675729	0.559419	1.000000	0.512967	0.567380
Q5B_e	0.491905	0.534938	0.551471	0.512967	1.000000	0.504136
Q5B_f	0.590582	0.572089	0.507462	0.567380	0.504136	1.000000
Q5B_g	0.414872	0.414227	0.451229	0.458562	0.736102	0.508746
Q5B_h	0.478641	0.370199	0.412129	0.354019	0.322332	0.591336
Q5B_i	0.321955	0.422943	0.482821	0.390224	0.528027	0.503771
Q5B_j	0.383405	0.452699	0.488455	0.480803	0.505341	0.466477
Q5B_k	0.438811	0.552572	0.400770	0.630046	0.567646	0.421860
Cronbach's Alpha	0.913867	Std. Cror	nbach's Alp	ha 0.91445	50	

	Q5B_g	Q5B_h	Q5B_i	Q5B_j	Q5B_k
Q5B_a	0.414872	0.478641	0.321955	0.383405	0.438811
Q5B_b	0.414227	0.370199	0.422943	0.452699	0.552572
Q5B_c	0.451229	0.412129	0.482821	0.488455	0.400770
Q5B_d	0.458562	0.354019	0.390224	0.480803	0.630046
Q5B_e	0.736102	0.322332	0.528027	0.505341	0.567646
Q5B_f	0.508746	0.591336	0.503771	0.466477	0.421860
Q5B_g	1.000000	0.395425	0.543936	0.514405	0.514179
Q5B_h	0.395425	1.000000	0.491797	0.356131	0.300953
Q5B_i	0.543936	0.491797	1.000000	0.684972	0.434747
Q5B_j	0.514405	0.356131	0.684972	1.000000	0.663317
Q5B_k	0.514179	0.300953	0.434747	0.663317	1.000000
Cronbach's Alpha	0.913867	Std. Cror	nbach's Alp	ha 0.91445	50

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### **Reliability Section**

Reliability Section							
-	Item	Values		If This Item	is Omitted		
	R2						
		Standard	Total	Total	Coef Corr Other		
Variable	Mean	Deviation	Mean	Std.Dev.	Alpha Total Items		
Q7_a	4.213333	1.069141	31	8.49324	0.8219 0.1592 0.2676		
Q7_b	3.306667	1.541965	31.90667	7.957952	0.8047 0.4264 0.2672		
Q7_c	3.626667	1.333288	31.58667	7.998468	0.7974 0.4884 0.4056		
Q7_d	3.173333	1.319022	32.04	7.948211	0.7929 0.5368 0.4010		
Q7_e	3.626667	1.205543	31.58667	8.114207	0.8005 0.4537 0.3674		
Q7_f	2.88	1.251594	32.33333	8.370368	0.8204 0.2167 0.2709		
Q7_g	2.666667	1.388498	32.54667	7.872795	0.7903 0.5608 0.5098		
Q7_h	2.08	1.171278	33.13334	8.067843	0.7957 0.5137 0.5714		
Q7_i	2.306667	1.273146	32.90667	8.023906	0.7966 0.4976 0.5475		
Q7_j	2.306667	1.173737	32.90667	7.911971	0.7837 0.6565 0.6124		
Q7_k	2.96	1.256765	32.25333	8.022087	0.7958 0.5077 0.4380		
Q7_I	2.066667	1.200601	33.14667	8.009611	0.7925 0.5498 0.4916		
Total			35.21333	8.727548	0.8134		

Cronbach's Alpha 0.813387 Std. Cronbachs Alpha 0.812690

Count Distribution Se	Count Distribution Section								
Variable	1	2	3	4	5				
Q7_a	3	5	3	26	38				
Q7_b	19	3	9	24	20				
Q7_c	9	7	10	26	23				
Q7_d	11	12	19	19	14				
Q7_e	5	10	13	27	20				
Q7_f	11	20	21	13	10				
Q7_g	21	15	17	12	10				
Q7_h	31	21	12	8	3				
Q7_i	29	14	15	14	3 3 1				
Q7_j	26	16	18	14					
Q7_k	13	13	21	20	8				
Q7_I	32	20	14	4	5				
Total	210	156	172	207	155				
Percentage Distributi	on Sectio	on							
Variable	1	2	3	4	5				
Q7_a	4.00	6.67	4.00	34.67	50.67				
Q7_b	25.33	4.00	12.00	32.00	26.67				
Q7_c	12.00	9.33	13.33	34.67	30.67				
Q7_d	14.67	16.00	25.33	25.33	18.67				
Q7_e	6.67	13.33	17.33	36.00	26.67				
Q7_f	14.67	26.67	28.00	17.33	13.33				
Q7_g	28.00	20.00	22.67	16.00					

Q7_h	41.33	28.00	16.00	10.67	4.00
Q7_i	38.67	18.67	20.00	18.67	4.00
Q7_j	34.67	21.33	24.00	18.67	1.33
Q7_k	17.33	17.33	28.00	26.67	10.67
Q7_I	42.67	26.67	18.67	5.33	6.67
Total	23.33	17.33	19.11	23.00	17.22

### **Correlation Section**

	Q7_a	Q7_b	Q7_c	Q7_d	Q7_e	Q7_f
Q7_a	1.000000	0.246677	0.378948	0.155493	0.219896	-0.101796
Q7_b	0.246677	1.000000	0.371949	0.252567	0.164196	0.131360
Q7_c	0.378948	0.371949	1.000000	0.482970	0.315670	0.005183
Q7_d	0.155493	0.252567	0.482970	1.000000	0.330188	0.045512
Q7_e	0.219896	0.164196	0.315670	0.330188	1.000000	0.355023
Q7_f	-0.101796	0.131360	0.005183	0.045512	0.355023	1.000000
Q7_g	0.148683	0.357665	0.231154	0.371387	0.328306	0.318818
Q7_h	-0.003022	0.248112	0.209757	0.244564	0.203273	0.117255
Q7_i	-0.098352	0.233675	0.267382	0.354178	0.066797	0.074290
Q7_j	0.033311	0.208667	0.333204	0.401633	0.330312	0.190968
Q7_k	-0.023735	0.236535	0.232909	0.371077	0.364622	0.211686
Q7_I	0.030881	0.258890	0.260577	0.351004	0.222833	0.050361
Cronbach's Alpha	0.813387	Std. Cror	nbach's Alp	ha 0.81269	90	

	Q7 g	Q7 h	Q7 i	Q7 j	Q7 k	Q7
Q7_a			-0.098352			
Q7_b	0.357665	0.248112	0.233675	0.208667	0.236535	0.258890
Q7_c	0.231154	0.209757	0.267382	0.333204	0.232909	0.260577
Q7_d	0.371387	0.244564	0.354178	0.401633	0.371077	0.351004
Q7_e	0.328306	0.203273	0.066797	0.330312	0.364622	0.222833
Q7_f	0.318818	0.117255	0.074290	0.190968	0.211686	0.050361
Q7_g	1.000000	0.581649	0.295584	0.337203	0.255554	0.281020
Q7_h	0.581649	1.000000	0.590488	0.463566	0.176628	0.370934
Q7_i	0.295584	0.590488	1.000000	0.587322	0.311815	0.463847
Q7_j	0.337203	0.463566	0.587322	1.000000	0.548928	0.646976
Q7_k	0.255554	0.176628	0.311815	0.548928	1.000000	0.521241
Q7_I	0.281020	0.370934	0.463847	0.646976	0.521241	1.000000
Cronbach's Alpha	0.813387	Std. Cror	nbach's Alp	ha 0.81269	90	

### Dataset C:\...\MaduekweChidinmaCaroline\Caroline Captured Data.NCSS

### **Reliability Section**

Item Values		If This Item is Omitted			
R2					
	Standard	Total	Total	Coef Corr Other	
Mean	Deviation	Mean	Std.Dev.	Alpha Total Items	
1.358696	0.4822457	2.597826	0.727177	0.3976 0.3219 0.1539	
1.293478	0.4578508	2.663043	0.7883377	0.5628 0.2161 0.0619	
1.304348	0.4626519	2.652174	0.7021909	0.2064 0.4309 0.1953	
		3.956522	0.993529	0.5028	
	<b>R2</b> Mean 1.358696 1.293478	R2StandardMeanDeviation1.3586960.48224571.2934780.4578508	R2StandardTotalMeanDeviationMean1.3586960.48224572.5978261.2934780.45785082.6630431.3043480.46265192.652174	Standard DeviationTotal MeanTotal Std.Dev.1.3586960.48224572.5978260.7271771.2934780.45785082.6630430.78833771.3043480.46265192.6521740.7021909	

Cronbach's Alpha 0.502783 Std. Cronbachs Alpha 0.502316

### **Count Distribution Section**

Variable	1	2
Q8_a	59	33
Q8_b	65	27
Q8_c	64	28
Total	188	88

### Percentage Distribution Section

Variable	1	2
Q8_a	64.13	35.87
Q8_b	70.65	29.35
Q8_c	69.57	30.43
Total	68.12	31.88

	Q8_a	Q8_b	Q8_c	
Q8_a	1.000000	0.115228	0.391885	
Q8_b	0.115228	1.000000	0.248110	
Q8_c	0.391885	0.248110	1.000000	
Cronbach's Alpha	0.502783	Std. Cror	nbach's Alpha	0.502316

#### Dataset C:\...\MaduekweChidinmaCaroline\Caroline Captured Data.NCSS

# **Reliability Section**

Renability Se						
	Item V R2	alues		If I his I	Item is	Omitted
<b>Variable</b> Q9_a Q9_b Q9_c Q9_d Q9_e Q9_f Q9_f Q9_f Q9_h Q9_i Q9_i Q9_i Q9_k Total	Mean 3.527472 3.571429 3.758242 3.67033 3.307692 3.285714 3.362637 3.483516 3.538461 3.340659 3.450549	Standard Deviation 1.360887 1.367421 1.352698 1.342096 1.387983 1.447494 1.464517 1.493412 1.43223 1.415939 1.477714	<b>Total</b> <b>Mean</b> 34.76923 34.72527 34.53846 34.62637 34.98901 35.01099 34.93407 34.81319 34.75824 34.95604 34.84615 38.2967	Total Std.Dev 12.0776 12.0037 11.9250 11.8618 11.8953 11.8710 11.7849 11.7482 11.7482 11.7882 11.8001 11.7935 13.0277	5 76 05 34 37 06 93 22 26 11 52	Coef AlphaCorr TotalOther Items0.95770.66930.82770.95600.72380.87960.95360.79620.88850.95170.85480.79060.95360.79630.81670.95430.77710.83570.95230.83120.82080.95200.83990.85650.95170.85020.86270.95160.85210.87050.95290.81630.85470.95750.9575
Cronbach's A	lpha 0.957482	Std. Cron	bachs Alpha	0.957439		
Count Distril Variable Q9_a Q9_b Q9_c Q9_d Q9_e Q9_f Q9_f Q9_f Q9_f Q9_i Q9_i Q9_i Q9_i Q9_k Total	1 1 1 1 1 1 1 1 1 1	1       2         4       7         2       9         1       6         1       8         4       11         7       10         7       8         5       12         6       4         5       13         6       10	<b>3</b> 10 13 12 11 23 18 18 10 15 11 11 152	<b>4</b> 37 29 27 31 19 22 21 22 27 30 25 290	5 23 28 35 30 24 24 24 27 32 29 22 29 303	
Percentage I Variable Q9_a Q9_b Q9_c Q9_d Q9_e Q9_f Q9_g Q9_h Q9_i	Distribution Se 15.3 13.1 12.0 12.0 15.3 18.6 18.6 16.4 17.5	1         2           88         7.69           9         9.89           9         6.59           9         8.79           88         12.09           88         8.79           88         13.19	<b>3</b> 10.99 14.29 13.19 12.09 25.27 19.78 19.78 10.99 16.48	<b>4</b> 40.66 31.87 29.67 34.07 20.88 24.18 23.08 24.18 29.67	<b>5</b> 25.27 30.77 38.46 32.97 26.37 26.37 29.67 35.16 31.87	

Q9_j	16.48	14.29	12.09	32.97	24.18
Q9_k	17.58	10.99	12.09	27.47	31.87
Total	15.78	9.79	15.18	28.97	30.27

### **Correlation Section**

	Q9_a	Q9_b	Q9_c	Q9_d	Q9_e	Q9_f
Q9_a	1.000000	0.893062	0.860731	0.686363	0.419005	0.385166
Q9_b	0.893062	1.000000	0.910482	0.739503	0.497611	0.461114
Q9_c	0.860731	0.910482	1.000000	0.806333	0.566759	0.529365
Q9_d	0.686363	0.739503	0.806333	1.000000	0.717143	0.638132
Q9_e	0.419005	0.497611	0.566759	0.717143	1.000000	0.868273
Q9_f	0.385166	0.461114	0.529365	0.638132	0.868273	1.000000
Q9_g	0.499479	0.527882	0.605616	0.717249	0.748017	0.820652
Q9_h	0.523698	0.570523	0.658027	0.723474	0.656438	0.670400
Q9_i	0.536736	0.573012	0.664394	0.717665	0.675881	0.659224
Q9_j	0.482334	0.506642	0.571379	0.732154	0.782813	0.754323
Q9_k	0.455128	0.492532	0.549814	0.669594	0.733419	0.728725
Cronbach's Alpha	0.957482	Std. Cror	nbach's Alpl	ha 0.95743	39	

	Q9_g	Q9_h	Q9_i	Q9_j	Q9_k
Q9_a	0.499479	0.523698		0.482334	0.455128
Q9_b	0.527882	0.570523	0.573012	0.506642	0.492532
Q9_c	0.605616	0.658027	0.664394	0.571379	0.549814
Q9_d	0.717249	0.723474	0.717665	0.732154	0.669594
Q9_e	0.748017	0.656438	0.675881	0.782813	0.733419
Q9_f	0.820652	0.670400	0.659224	0.754323	0.728725
Q9_g	1.000000	0.813060	0.721648	0.754210	0.724599
Q9_h	0.813060	1.000000	0.874317	0.782981	0.730940
Q9_i	0.721648	0.874317	1.000000	0.818055	0.834337
Q9_j	0.754210	0.782981	0.818055	1.000000	0.897623
Q9_k	0.724599	0.730940	0.834337	0.897623	1.000000
Cronbach's Alpha	0.957482	Std. Cror	nbach's Alp	ha 0.95743	39

### Dataset C:\...\MaduekweChidinmaCaroline\Caroline Captured Data.NCSS

# **Reliability Section**

-	Item Values			If This Item is Omitted				
	R2							
		Standard	Total	Total	C	Coef	Corr	Other
Variable	Mean	Deviation	Mean	Std.Dev	v. Al	pha '	Total	Items
Q10 a	3.626374	1.121986	7.56044	1.82092	2 0.6	649 0.	5441 (	).3637
Q10 b	3.78022	1.062515	7.406593	1.76998	34 0.5	5040 0.	6743 (	).4599
Q10 c	3.78022	1.04139	7.406593					).2504
Total			11.18681	2.60730		7338		
Cronbach's Al	pha 0.733835	Std. Cron	bachs Alpha	0.734013				
			is defie 7 aprila	01101010				
Count Distrib	oution Section							
Variable		1 2	3	4	5			
Q10 a		6 4	32	25	24			
Q10 b		4 3	30	26	28			
Q10 c		2 5	34	20	30			
Total		2 12	96	71	82			
lotar	•		00	, ,	02			
Percentage D	) istribution Se	ection						
Variable		1 2	3	4	5			
Q10 a	6.5	9 4.40	35.16	27.47	26.37			
Q10 b	4.4	0 3.30	32.97	28.57	30.77			
Q10 c	2.2	0 5.49	37.36	21.98	32.97			
Total	4.4	0 4.40	35.16	26.01	30.04			

	Q10_a	Q10_b	Q10_c	
Q10_a	1.000000	0.601423	0.337848	
Q10_b	0.601423	1.000000	0.498115	
Q10_c	0.337848	0.498115	1.000000	
Cronbach's Alpha	0.733835	Std. Cror	nbach's Alpha (	0.734013

#### Dataset C:\...\MaduekweChidinmaCaroline\Caroline Captured Data.NCSS

### **Reliability Section**

		Values		If This Item is Omitted				
	R2							
		Standard	Total	Total	Coef Corr Other			
Variable	Mean	Deviation	Mean	Std.Dev.	Alpha Total Items			
Q11_a	3.131868	1.462181	34.14286	11.84021	0.9452 0.6362 0.7979			
Q11_b	3.318681	1.444369	33.95604	11.65038	0.9397 0.7886 0.8681			
Q11 c	3.241758	1.416888	34.03297	11.70038	0.9405 0.7676 0.8336			
Q11 d	3.076923	1.351795	34.1978	11.69351	0.9388 0.8158 0.8100			
Q11 <sup>_</sup> e	2.901099	1.308561	34.37363	11.87027	0.9427 0.6998 0.7074			
Q11 f	3.10989	1.294866	34.16484	11.69545	0.9377 0.8550 0.8451			
Q11_g	3.120879	1.315169	34.15385	11.88549	0.9432 0.6833 0.7017			
Q11 h	3.153846	1.272994	34.12088	11.86108	0.9417 0.7302 0.6607			
Q11_i	2.967033	1.337083	34.30769	11.86844	0.9432 0.6840 0.7580			
Q11_j	3.120879	1.323591	34.15385	11.78221	0.9406 0.7626 0.8306			
Q11_k	3.054945	1.336352	34.21978	11.72917	0.9395 0.7974 0.8221			
Q11 I	3.076923	1.318507	34.1978	11.78909	0.9407 0.7603 0.7107			
Total			37.27473	12.82018	0.9458			

Cronbach's Alpha 0.945800 Std. Cronbach's Alpha 0.946224

Count Distribution Section							
Variable	1	2	3	4	5		
Q11_a	20	12	14	26	19		
Q11_b	16	13	11	28	23		
Q11_c	16	15	10	31	19		
Q11_d	16	15	22	22	16		
Q11 e	20	14	20	29	8		
Q11 f	15	13	23	27	13		
Q11_g	15	15	18	30	13		
Q11 h	12	19	15	33	12		
Q11_i	19	15	17	30	10		
Q11_j	14	16	22	23	16		
Q11_k	14	19	23	18	17		
Q11_I	14	18	21	23	15		
Total	191	184	216	320	181		
Percentage Distribu	ution Sectio	n					
Variable	1	2	3	4	5		
Q11_a	21.98	13.19	15.38	28.57	20.88		
Q11_b	17.58	14.29	12.09	30.77	25.27		
Q11_c	17.58	16.48	10.99	34.07	20.88		
Q11_d	17.58	16.48	24.18	24.18	17.58		
Q11_e	21.98	15.38	21.98	31.87	8.79		
Q11_f	16.48	14.29	25.27	29.67	14.29		
Q11_g	16.48	16.48	19.78	32.97	14.29		
			120				

Q11_h	13.19	20.88	16.48	36.26	13.19
Q11_i	20.88	16.48	18.68	32.97	10.99
Q11_j	15.38	17.58	24.18	25.27	17.58
Q11_k	15.38	20.88	25.27	19.78	18.68
Q11_I	15.38	19.78	23.08	25.27	16.48
Total	17.49	16.85	19.78	29.30	16.58

### **Correlation Section**

	Q11_a	Q11_b	Q11_c	Q11_d	Q11_e	Q11_f
Q11_a	1.000000	0.779571	0.649473	0.495117	0.657292	0.520431
Q11_b	0.779571	1.000000	0.825194	0.715719	0.604736	0.699920
Q11_c	0.649473	0.825194	1.000000	0.790736	0.462498	0.615199
Q11_d	0.495117	0.715719	0.790736	1.000000	0.525700	0.763198
Q11_e	0.657292	0.604736	0.462498	0.525700	1.000000	0.721253
Q11_f	0.520431	0.699920	0.615199	0.763198	0.721253	1.000000
Q11_g	0.274739	0.412338	0.520783	0.594691	0.504157	0.735912
Q11_h	0.454592	0.547124	0.552050	0.722670	0.469478	0.704146
Q11_i	0.610358	0.523302	0.455854	0.474765	0.645863	0.554031
Q11_j	0.382074	0.560826	0.535244	0.615747	0.507364	0.698815
Q11_k	0.377238	0.537695	0.632535	0.711117	0.524165	0.702797
Q11_I	0.392350	0.617101	0.620377	0.669911	0.513213	0.691354
Cronbach's Alpha	0.945800	Std. Cror	nbach's Alp	ha 0.94622	24	

	Q11 g	Q11 h	Q11 i	Q11 j	Q11 k	Q11 I
Q11_a	0.274739	0.454592	0.610358	0.382074	0.377238	0.392350
Q11_b	0.412338	0.547124	0.523302	0.560826	0.537695	0.617101
Q11_c	0.520783	0.552050	0.455854	0.535244	0.632535	0.620377
Q11_d	0.594691	0.722670	0.474765	0.615747	0.711117	0.669911
Q11_e	0.504157	0.469478	0.645863	0.507364	0.524165	0.513213
Q11_f	0.735912	0.704146	0.554031	0.698815	0.702797	0.691354
Q11_g	1.000000	0.639161	0.444590	0.591511	0.672634	0.667373
Q11_h	0.639161	1.000000	0.479549	0.602123	0.608933	0.628377
Q11_i	0.444590	0.479549	1.000000	0.749400	0.616646	0.461541
Q11_j	0.591511	0.602123	0.749400	1.000000	0.812835	0.624926
Q11_k	0.672634	0.608933	0.616646	0.812835	1.000000	0.766907
Q11_I	0.667373	0.628377	0.461541	0.624926	0.766907	1.000000
Cronbach's Alpha	0.945800	Std. Cror	nbach's Alp	ha 0.94622	24	

#### **Appendix D: Frequency Distribution**

Dataset C:\...\MaduekweChidinmaCaroline\Caroline Captured Data.NCSS

### Frequency Distribution of Q1

Does your business use budgetary tools

		Cumulative		Cumulative
Q1	Count	Count	Percent	Percent
1 Yes	73	73	79.35%	79.35%
2 No	19	92	20.65%	100.00%

### Frequency Distribution of Q2\_a

How often does your business use the following types of budgets: Sales budgets

		Cumulative		Cumulative
Q2_a	Count	Count	Percent	Percent
2 Rarely	6	6	8.22%	8.22%
3 Sometimes	6	12	8.22%	16.44%
4 Frequently	29	41	39.73%	56.16%
5 Very Frequently	32	73	43.84%	100.00%

## Frequency Distribution of Q2\_b

How often does your business use the following types of budgets: Purchases budgets

		Cumulative		Cumulative
Q2_b	Count	Count	Percent	Percent
2 Rarely	3	3	4.11%	4.11%
3 Sometimes	10	13	13.70%	17.81%
4 Frequently	23	36	31.51%	49.32%
5 Very Frequently	37	73	50.68%	100.00%

#### Frequency Distribution of Q2\_c

How often does your business use the following types of budgets: Inventory budgets

		Cumulative		Cumulative
Q2_c	Count	Count	Percent	Percent
1 Never	3	3	4.11%	4.11%
2 Rarely	10	13	13.70%	17.81%
3 Sometimes	11	24	15.07%	32.88%
4 Frequently	23	47	31.51%	64.38%
5 Very Frequently	26	73	35.62%	100.00%

## Frequency Distribution of Q2\_d

How often does your business use the following types of budgets: Cash budgets

		Cumulative		Cumulative
Q2_d	Count	Count	Percent	Percent
1 Never	3	3	4.11%	4.11%
2 Rarely	4	7	5.48%	9.59%
3 Sometimes	6	13	8.22%	17.81%
4 Frequently	21	34	28.77%	46.58%
5 Very Frequently	39	73	53.42%	100.00%

## Frequency Distribution of Q2\_e

How often does your business use the following types of budgets: Capital expenditure budgets

		Cumulative		Cumulative
Q2_e	Count	Count	Percent	Percent
1 Never	6	6	8.22%	8.22%
2 Rarely	9	15	12.33%	20.55%
3 Sometimes	10	25	13.70%	34.25%
4 Frequently	24	49	32.88%	67.12%
5 Very Frequently	24	73	32.88%	100.00%

## Frequency Distribution of Q2\_f

How often does your business use the following types of budgets: Personnel budgets

		Cumulative			
Q2_f	Count	Count	Percent	Percent	
1 Never	8	8	10.96%	10.96%	
2 Rarely	12	20	16.44%	27.40%	
3 Sometimes	10	30	13.70%	41.10%	
4 Frequently	25	55	34.25%	75.34%	
5 Very Frequently	18	73	24.66%	100.00%	

#### Frequency Distribution of Q2\_g

How often does your business use the following types of budgets: Marketing budgets

		Cumulative		Cumulative
Q2_g	Count	Count	Percent	Percent
1 Never	12	12	16.44%	16.44%
2 Rarely	9	21	12.33%	28.77%
3 Sometimes	10	31	13.70%	42.47%
4 Frequently	23	54	31.51%	73.97%
5 Very Frequently	19	73	26.03%	100.00%

## Frequency Distribution of Q3\_a

How often does your business use the following method of budgeting: Flexible budgets

	Cumulative			
Q3_a	Count	Count	Percent	Percent
	122			

1 Never	13	13	18.31%	18.31%
2 Rarely	11	24	15.49%	33.80%
3 Sometimes	14	38	19.72%	53.52%
4 Frequently	21	59	29.58%	83.10%
5 Very Frequently	12	71	16.90%	100.00%

## Frequency Distribution of Q3\_b

How often does your business use the following method of budgeting: Fixed budgets

		Cumulative		Cumulative
Q3_b	Count	Count	Percent	Percent
1 Never	12	12	16.67%	16.67%
2 Rarely	9	21	12.50%	29.17%
3 Sometimes	15	36	20.83%	50.00%
4 Frequently	22	58	30.56%	80.56%
5 Very Frequently	14	72	19.44%	100.00%

## Frequency Distribution of Q3\_c

How often does your business use the following method of budgeting: Incremental budgets

		Cumulative		Cumulative
Q3_c	Count	Count	Percent	Percent
1 Never	23	23	32.39%	32.39%
2 Rarely	11	34	15.49%	47.89%
3 Sometimes	18	52	25.35%	73.24%
4 Frequently	13	65	18.31%	91.55%
5 Very Frequently	6	71	8.45%	100.00%

## Frequency Distribution of Q3\_d

How often does your business use the following method of budgeting: Zero Based budgets

	Cumulative			Cumulative	
Q3_d	Count	Count	Percent	Percent	
1 Never	26	26	37.14%	37.14%	
2 Rarely	15	41	21.43%	58.57%	
3 Sometimes	10	51	14.29%	72.86%	
4 Frequently	14	65	20.00%	92.86%	
5 Very Frequently	5	70	7.14%	100.00%	

## Frequency Distribution of Q4

Does your business use performance measurement tools?

		Cumulative			Cumulative	
Q4	Count	Count		Percent	Percent	
1 Yes	76		76	82.61%	82.61%	
2 No	16		92	17.39%	100.00%	
	124					

## Frequency Distribution of Q5\_a

How often does your business use the following performance measures? Financial Measure: Sales Growth

		Cumulative		Cumulative	
Q5_a	Count	Count	Percent	Percent	
1 Never	4	4	5.33%	5.33%	
2 Rarely	2	6	2.67%	8.00%	
3 Sometimes	5	11	6.67%	14.67%	
4 Frequently	26	37	34.67%	49.33%	
5 Very Frequently	38	75	50.67%	100.00%	

#### Frequency Distribution of Q5\_b

How often does your business use the following performance measures? Financial Measure: Cash Flow

		Cumulative		Cumulative	
Q5_b	Count	Count	Count Percent		
1 Never	1	1	1.32%	1.32%	
2 Rarely	6	7	7.89%	9.21%	
3 Sometimes	4	11	5.26%	14.47%	
4 Frequently	23	34	30.26%	44.74%	
5 Very Frequently	42	76	55.26%	100.00%	

## Frequency Distribution of Q5\_c

How often does your business use the following performance measures? Financial Measure: Operating Income

		Cumulative		Cumulative	
Q5_c	Count	Count Percent		Percent	
1 Never	6	6	7.89%	7.89%	
2 Rarely	3	9	3.95%	11.84%	
3 Sometimes	6	15	7.89%	19.74%	
4 Frequently	23	38	30.26%	50.00%	
5 Very Frequently	38	76	50.00%	100.00%	

## Frequency Distribution of Q5\_d

How often does your business use the following performance measures? Financial Measure: Net Profit Margin

		Cumulative		Cumulative	
Q5_d	Count	Count	Percent	Percent	
1 Never	7	7	9.33%	9.33%	
2 Rarely	4	11	5.33%	14.67%	
3 Sometimes	4	15	5.33%	20.00%	
4 Frequently	25	40	33.33%	53.33%	
	135				

5 Very Frequently	35	75	46.67%	100.00%

#### Frequency Distribution of Q5\_e

How often does your business use the following performance measures? Financial Measure: Return on Investment

	Cumulative			Cumulative	
Q5_e	Count	Count	Percent	Percent	
1 Never	12	12	16.00%	16.00%	
2 Rarely	10	22	13.33%	29.33%	
3 Sometimes	13	35	17.33%	46.67%	
4 Frequently	17	52	22.67%	69.33%	
5 Very Frequently	23	75	30.67%	100.00%	

### Frequency Distribution of Q5B\_a

How often does your business use the following performance measures? Non- Financial Measure: Customer Complaint

		Cumulative		Cumulative	
Q5B_a	Count	Count Percent		Percent	
1 Never	5	5	6.58%	6.58%	
2 Rarely	13	18	17.11%	23.68%	
3 Sometimes	13	31	17.11%	40.79%	
4 Frequently	18	49	23.68%	64.47%	
5 Very Frequently	27	76	35.53%	100.00%	

#### Frequency Distribution of Q5B\_b

How often does your business use the following performance measures? Non- Financial Measure: Customer Satisfaction

		Cumulative		Cumulative	
Q5B_b	Count	Count	Percent	Percent	
1 Never	3	3	3.95%	3.95%	
2 Rarely	9	12	11.84%	15.79%	
3 Sometimes	11	23	14.47%	30.26%	
4 Frequently	22	45	28.95%	59.21%	
5 Very Frequently	31	76	40.79%	100.00%	

#### Frequency Distribution of Q5B\_c

How often does your business use the following performance measures? Non- Financial Measure: Employee Turnover Rate

		Cumulative	Cumulative	
Q5B_c	Count	Count	Percent	Percent
1 Never	6		6 7.89%	7.89%
2 Rarely	13	1	9 17.11%	25.00%
3 Sometimes	13	3	2 17.11%	42.11%
	136			

4 Frequently	23	55	30.26%	72.37%
5 Very Frequently	21	76	27.63%	100.00%

#### Frequency Distribution of Q5B\_d

How often does your business use the following performance measures? Non- Financial Measure: Number of Repeat customers

		Cumulative		Cumulative
Q5B_d	Count	Count	Percent	Percent
1 Never	5	5	6.58%	6.58%
2 Rarely	9	14	11.84%	18.42%
3 Sometimes	11	25	14.47%	32.89%
4 Frequently	17	42	22.37%	55.26%
5 Very Frequently	34	76	44.74%	100.00%

## Frequency Distribution of Q5B\_e

How often does your business use the following performance measures? Non- Financial Measure: Growth in the market share

		Cumulative		Cumulative
Q5B_e	Count	Count	Percent	Percent
1 Never	16	16	21.05%	21.05%
2 Rarely	13	29	17.11%	38.16%
3 Sometimes	11	40	14.47%	52.63%
4 Frequently	15	55	19.74%	72.37%
5 Very Frequently	21	76	27.63%	100.00%

## Frequency Distribution of Q5B\_f

How often does your business use the following performance measures? Non- Financial Measure: Number of Returned products

		Cumulative		
Q5B_f	Count	Count	Percent	Percent
1 Never	7	7	9.21%	9.21%
2 Rarely	20	27	26.32%	35.53%
3 Sometimes	19	46	25.00%	60.53%
4 Frequently	14	60	18.42%	78.95%
5 Very Frequently	16	76	21.05%	100.00%

# Frequency Distribution of Q5B\_g

How often does your business use the following performance measures? Non- Financial Measure: Hours of Employee Training

		Cumulative	<u>i</u>		Cumulative
Q5B_g	Count	Count	F	Percent	Percent
1 Never	12		12	15.79%	15.79%
2 Rarely	11		23	14.47%	30.26%
	137				

3 Sometimes	14	37	18.42%	48.68%
4 Frequently	18	55	23.68%	72.37%
5 Very Frequently	21	76	27.63%	100.00%

Frequency Distribution of Q5B\_h

How often does your business use the following performance measures? Non- Financial Measure: Employee Absenteeism rate

		Cumulative		Cumulative
Q5B_h	Count	Count	Percent	Percent
1 Never	8	8	10.53%	10.53%
2 Rarely	14	22	18.42%	28.95%
3 Sometimes	17	39	22.37%	51.32%
4 Frequently	21	60	27.63%	78.95%
5 Very Frequently	16	76	21.05%	100.00%

#### Frequency Distribution of Q5B\_i

How often does your business use the following performance measures? Non- Financial Measure: Job Satisfaction survey

		Cumulative		Cumulative
Q5B_i	Count	Count	Percent	Percent
1 Never	11	11	14.47%	14.47%
2 Rarely	18	29	23.68%	38.16%
3 Sometimes	10	39	13.16%	51.32%
4 Frequently	23	62	30.26%	81.58%
5 Very Frequently	14	76	18.42%	100.00%

#### Frequency Distribution of Q5B\_j

How often does your business use the following performance measures? Non- Financial Measure: Staff competency rate

		Cumulative		Cumulative
Q5B_j	Count	Count	Percent	Percent
1 Never	11	11	14.47%	14.47%
2 Rarely	11	22	14.47%	28.95%
3 Sometimes	15	37	19.74%	48.68%
4 Frequently	17	54	22.37%	71.05%
5 Very Frequently	22	76	28.95%	100.00%

## Frequency Distribution of Q5B\_k

How often does your business use the following performance measures? Non- Financial Measure: Response time to customers

		Cumulative		Cumulative
Q5B_k	Count	Count	Percent	Percent
1 Never	6	6	7.89%	7.89%
	100			

2 Rarely	9	15	11.84%	19.74%
3 Sometimes	7	22	9.21%	28.95%
4 Frequently	25	47	32.89%	61.84%
5 Very Frequently	29	76	38.16%	100.00%

Frequency Distribution of Q6

Does your business use pricing tools/strategies?

		Cumulative		Cumulative
Q6	Count	Count	Percent	Percent
1 Yes	76	76	82.61%	82.61%
2 No	16	92	17.39%	100.00%

Frequency Distribution of Q7\_a

How often does your business use the following approach to determine prices?: Adding a profit percentage on cost

		Cumulative		Cumulative
Q7_a	Count	Count	Percent	Percent
1 Never	3	3	4.00%	4.00%
2 Rarely	5	8	6.67%	10.67%
3 Sometimes	3	11	4.00%	14.67%
4 Frequently	26	37	34.67%	49.33%
5 Very Frequently	38	75	50.67%	100.00%

## Frequency Distribution of Q7\_b

How often does your business use the following approach to determine prices? Setting a different price for the same product in different market segments

		Cumulative		Cumulative
Q7_b	Count	Count	Percent	Percent
1 Never	20	20	26.32%	26.32%
2 Rarely	3	23	3.95%	30.26%
3 Sometimes	9	32	11.84%	42.11%
4 Frequently	24	56	31.58%	73.68%
5 Very Frequently	20	76	26.32%	100.00%

## Frequency Distribution of Q7\_c

How often does your business use the following approach to determine prices?:Comparing prices to those of competitors then pricing your products lower

		Cumulative		Cumulative
Q7_c	Count	Count	Percent	Percent
1 Never	9	9	11.84%	11.84%
2 Rarely	7	16	9.21%	21.05%
3 Sometimes	10	26	13.16%	34.21%
4 Frequently	27	53	35.53%	69.74%
	139			

5 Very Frequently	23	76	30.26%	100.00%
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### Frequency Distribution of Q7\_d

How often does your business use the following approach to determine prices?: Changing prices according to the demand of a product

		Cumulative		Cumulative
Q7_d	Count	Count	Percent	Percent
1 Never	11	11	14.47%	14.47%
2 Rarely	12	23	15.79%	30.26%
3 Sometimes	19	42	25.00%	55.26%
4 Frequently	19	61	25.00%	80.26%
5 Very Frequently	15	76	19.74%	100.00%

#### Frequency Distribution of Q7\_e

How often does your business use the following approach to determine prices?:Pricing a product to achieve a targeted rate of return on cost

		Cumulative		Cumulative
Q7_e	Count	Count	Percent	Percent
1 Never	5	5	6.58%	6.58%
2 Rarely	10	15	13.16%	19.74%
3 Sometimes	13	28	17.11%	36.84%
4 Frequently	28	56	36.84%	73.68%
5 Very Frequently	20	76	26.32%	100.00%

## Frequency Distribution of Q7\_f

How often does your business use the following approach to determine prices?:Selling a product at a price equal to the extra cost of ordering an extra unit of that product

	Cumulative			Cumulative
Q7_f	Count	Count	Percent	Percent
1 Never	11	11	14.47%	14.47%
2 Rarely	20	31	26.32%	40.79%
3 Sometimes	22	53	28.95%	69.74%
4 Frequently	13	66	17.11%	86.84%
5 Very Frequently	10	76	13.16%	100.00%

#### Frequency Distribution of Q7\_g

How often does your business use the following approach to determine prices?:Allowing buyers to pay what they can afford

		Cumulative		Cumulative
Q7_g	Count	Count	Percent	Percent
1 Never	21	21	27.63%	27.63%
2 Rarely	15	36	19.74%	47.37%
3 Sometimes	17	53	22.37%	69.74%
	140			

4 Frequently	12	65	15.79%	85.53%
5 Very Frequently	11	76	14.47%	100.00%

### Frequency Distribution of Q7\_h

How often does your business use the following approach to determine prices?:Relying on your gut feeling when setting prices

	Cumulative			Cumulative
Q7_h	Count	Count	Percent	Percent
1 Never	32	32	42.11%	42.11%
2 Rarely	21	53	27.63%	69.74%
3 Sometimes	12	65	15.79%	85.53%
4 Frequently	8	73	10.53%	96.05%
5 Very Frequently	3	76	3.95%	100.00%

## Frequency Distribution of Q7\_i

How often does your business use the following approach to determine prices?:Offering some products for free but charging high prices for others

		Cumulative		Cumulative
Q7_i	Count	Count	Percent	Percent
1 Never	30	30	39.47%	39.47%
2 Rarely	14	44	18.42%	57.89%
3 Sometimes	15	59	19.74%	77.63%
4 Frequently	14	73	18.42%	96.05%
5 Very Frequently	3	76	3.95%	100.00%

## Frequency Distribution of Q7\_j

How often does your business use the following approach to determine prices?: Charging a low price to deter new potential competitors from entering into the market

	Cumulative			Cumulative
Q7_j	Count	Count	Percent	Percent
1 Never	27	27	35.53%	35.53%
2 Rarely	16	43	21.05%	56.58%
3 Sometimes	18	61	23.68%	80.26%
4 Frequently	14	75	18.42%	98.68%
5 Very Frequently	1	76	1.32%	100.00%

Frequency Distribution of Q7\_k

How often does your business use the following approach to determine prices?:Selling a product at a low price to increase sales of other more profitable products

		Cumulative	Cumulative	
Q7_k	Count	Count Percent		Percent
1 Never	13	1	3 17.11%	17.11%
2 Rarely	13	2	6 17.11%	34.21%
	141			

3 Sometimes	22	48	28.95%	63.16%
4 Frequently	20	68	26.32%	89.47%
5 Very Frequently	8	76	10.53%	100.00%

# Frequency Distribution of Q7\_I

How often does your business use the following approach to determine prices?: Charging different prices according to how early a customer places an order

		Cumulative		Cumulative
Q7_I	Count	Count	Percent	Percent
1 Never	32	32	42.11%	42.11%
2 Rarely	20	52	26.32%	68.42%
3 Sometimes	14	66	18.42%	86.84%
4 Frequently	5	71	6.58%	93.42%
5 Very Frequently	5	76	6.58%	100.00%

## Frequency Distribution of Q8\_a

Does your business prepare any of the following management accounting reports?:Budgetary Reports

		Cumulative		Cumulative
Q8_a	Count	Count	Percent	Percent
1 Yes	59	59	64.13%	64.13%
2 No	33	92	35.87%	100.00%

Frequency Distribution of Q8\_b

Does your business prepare any of the following management accounting reports?:Performance measurement Reports

		Cumulative		Cumulative
Q8_b	Count	Count	Percent	Percent
1 Yes	65	65	70.65%	70.65%
2 No	27	92	29.35%	100.00%

## Frequency Distribution of Q8\_c

Deservery business and an	and of the fall and a manual and and and	t accounting reports?:Pricing Reports
Does your business prepare	any of the following management	r accounting reports? Pricing Reports

		Cumulative		Cumulative
Q8_c	Count	Count	Percent	Percent
1 Yes	64	64	69.57%	69.57%
2 No	28	92	30.43%	100.00%

## Frequency Distribution of Q9\_a

How often does your business use management accounting reports for the following purposes?:For future planning

		Cumulativ	e		Cumulative
Q9_a	Count	Count		Percent	Percent
1 Never	14		14	15.22%	15.22%
	142				

2 Rarely	7	21	7.61%	22.83%
3 Sometimes	10	31	10.87%	33.70%
4 Frequently	37	68	40.22%	73.91%
5 Very Frequently	24	92	26.09%	100.00%

## Frequency Distribution of Q9\_b

How often does your business use management accounting reports for the following purposes?:For control purposes

		Cumulative		Cumulative
Q9_b	Count	Count	Percent	Percent
1 Never	12	12	13.19%	13.19%
2 Rarely	9	21	9.89%	23.08%
3 Sometimes	13	34	14.29%	37.36%
4 Frequently	29	63	31.87%	69.23%
5 Very Frequently	28	91	30.77%	100.00%

## Frequency Distribution of Q9\_c

How often does your business use management accounting reports for the following purposes?:For monitoring the business

		Cumulative		Cumulative
Q9_c	Count	Count	Percent	Percent
1 Never	11	11	11.96%	11.96%
2 Rarely	6	17	6.52%	18.48%
3 Sometimes	12	29	13.04%	31.52%
4 Frequently	28	57	30.43%	61.96%
5 Very Frequently	35	92	38.04%	100.00%

## Frequency Distribution of Q9\_d

How often does your business use management accounting reports for the following purposes?:For measuring performance

		Cumulative		Cumulative
Q9_d	Count	Count	Percent	Percent
1 Never	11	11	11.96%	11.96%
2 Rarely	8	19	8.70%	20.65%
3 Sometimes	11	30	11.96%	32.61%
4 Frequently	32	62	34.78%	67.39%
5 Very Frequently	30	92	32.61%	100.00%

## Frequency Distribution of Q9\_e

How often does your business use management accounting reports for the following purposes?:For motivating employees

		Cumulative		
Q9_e	Count	Count	Percent	Percent
	1/13			

1 Never	14	14	15.22%	15.22%
2 Rarely	11	25	11.96%	27.17%
3 Sometimes	24	49	26.09%	53.26%
4 Frequently	19	68	20.65%	73.91%
5 Very Frequently	24	92	26.09%	100.00%

#### Frequency Distribution of Q9\_f

How often does your business use management accounting reports for the following purposes?:For improving communication

		Cumulative		Cumulative
Q9_f	Count	Count	Percent	Percent
1 Never	17	17	18.48%	18.48%
2 Rarely	10	27	10.87%	29.35%
3 Sometimes	19	46	20.65%	50.00%
4 Frequently	22	68	23.91%	73.91%
5 Very Frequently	24	92	26.09%	100.00%

#### Frequency Distribution of Q9\_g

How often does your business use management accounting reports for the following purposes?:For developing tactical strategies

		Cumulative		Cumulative
Q9_g	Count	Count	Percent	Percent
1 Never	17	17	18.48%	18.48%
2 Rarely	8	25	8.70%	27.17%
3 Sometimes	19	44	20.65%	47.83%
4 Frequently	21	65	22.83%	70.65%
5 Very Frequently	27	92	29.35%	100.00%

#### Frequency Distribution of Q9\_h

How often does your business use management accounting reports for the following purposes?:For problem identification

		Cumulative		Cumulative
Q9_h	Count	Count	Percent	Percent
1 Never	15	15	16.30%	16.30%
2 Rarely	13	28	14.13%	30.43%
3 Sometimes	10	38	10.87%	41.30%
4 Frequently	22	60	23.91%	65.22%
5 Very Frequently	32	92	34.78%	100.00%

## Frequency Distribution of Q9\_i

How often does your business use management accounting reports for the following purposes?:For improving decision-making

Cumulative

Cumulative

Q9_i	Count Coun	t	Percent	Percent
1 Never	16	16	17.39%	17.39%
2 Rarely	5	21	5.43%	22.83%
3 Sometimes	15	36	16.30%	39.13%
4 Frequently	27	63	29.35%	68.48%
5 Very Frequently	29	92	31.52%	100.00%

## Frequency Distribution of Q9\_j

How often does your business use management accounting reports for the following purposes?:For optimising the use of resources

		Cumulative		Cumulative
Q9_j	Count	Count	Percent	Percent
1 Never	15	15	16.30%	16.30%
2 Rarely	13	28	14.13%	30.43%
3 Sometimes	11	39	11.96%	42.39%
4 Frequently	30	69	32.61%	75.00%
5 Very Frequently	23	92	25.00%	100.00%

#### Frequency Distribution of Q9\_k

How often does your business use management accounting reports for the following purposes?:For business process improvement

		Cumulative		Cumulative
Q9_k	Count	Count	Percent	Percent
1 Never	16	16	17.39%	17.39%
2 Rarely	10	26	10.87%	28.26%
3 Sometimes	11	37	11.96%	40.22%
4 Frequently	26	63	28.26%	68.48%
5 Very Frequently	29	92	31.52%	100.00%

## Frequency Distribution of Q10\_a

What are your perceptions regarding the effectiveness of the following management accounting tools?:Budgetary Tools

		Cumulative		Cumulative
Q10_a	Count	Count	Percent	Percent
1 Very Ineffective	6	6	6.59%	6.59%
2 Ineffective	4	10	4.40%	10.99%
3 Neutral	32	42	35.16%	46.15%
4 Somewhat Effective	25	67	27.47%	73.63%
5 Very Effective	24	91	26.37%	100.00%

#### Frequency Distribution of Q10\_b

What are your perceptions regarding the effectiveness of the following management accounting tools?:Performance measurement Tools

		Cumulative		Cumulative
Q10_b	Count	Count	Percent	Percent
1 Very Ineffective	4	4	4.40%	4.40%
2 Ineffective	3	7	3.30%	7.69%
3 Neutral	30	37	32.97%	40.66%
4 Somewhat Effective	26	63	28.57%	69.23%
5 Very Effective	28	91	30.77%	100.00%

#### Frequency Distribution of Q10\_c

What are your perceptions regarding the effectiveness of the following management accounting tools?:Pricing Tools

		Cumulative		Cumulative
Q10_c	Count	Count	Percent	Percent
1 Very Ineffective	2	2	2.20%	2.20%
2 Ineffective	5	7	5.49%	7.69%
3 Neutral	34	41	37.36%	45.05%
4 Somewhat Effective	20	61	21.98%	67.03%
5 Very Effective	30	91	32.97%	100.00%

## Frequency Distribution of Q11\_a

To what extent do you agree with the following statements about factors that inhibit your business from preparing MA reports? Budgetary Report: A lack of required resources such as computer

		Cumulative		Cumulative
Q11_a	Count	Count	Percent	Percent
1 Strongly Disagree	20	20	21.98%	21.98%
2 Disagree	12	32	13.19%	35.16%
3 Neither Agree nor disagree	14	46	15.38%	50.55%
4 Agree	26	72	28.57%	79.12%
5 Strongly Agree	19	91	20.88%	100.00%

#### Frequency Distribution of Q11\_b

To what extent do you agree with the following statements about factors that inhibit your business from preparing MA reports? Budgetary Report: A lack of top management support

		Cumulative		Cumulative
Q11_b	Count	Count	Percent	Percent
1 Strongly Disagree	16	16	17.58%	17.58%
2 Disagree	13	29	14.29%	31.87%
3 Neither Agree nor disagree	11	40	12.09%	43.96%
4 Agree	28	68	30.77%	74.73%
5 Strongly Agree	23	91	25.27%	100.00%

## Frequency Distribution of Q11\_c

To what extent do you agree with the following statements about factors that inhibit your business

from preparing MA reports? Budgetary Report: A lack of Qualified personnel

		Cumulative		Cumulative
Q11_c	Count	Count	Percent	Percent
1 Strongly Disagree	16	16	17.58%	17.58%
2 Disagree	15	31	16.48%	34.07%
3 Neither Agree nor disagree	10	41	10.99%	45.05%
4 Agree	31	72	34.07%	79.12%
5 Strongly Agree	19	91	20.88%	100.00%

## Frequency Distribution of Q11\_d

To what extent do you agree with the following statements about factors that inhibit your business from preparing MA reports? Budgetary Report: A lack of awareness about management accounting tools

		Cumulative		Cumulative
Q11_d	Count	Count	Percent	Percent
1 Strongly Disagree	16	16	17.58%	17.58%
2 Disagree	15	31	16.48%	34.07%
3 Neither Agree nor disagree	22	53	24.18%	58.24%
4 Agree	22	75	24.18%	82.42%
5 Strongly Agree	16	91	17.58%	100.00%

## Frequency Distribution of Q11\_e

To what extent do you agree with the following statements about factors that inhibit your business from preparing MA reports? Performance Measurement Report: A lack of required resources such as computer

	Cumulative			Cumulative
Q11_e	Count	Count	Percent	Percent
1 Strongly Disagree	20	20	21.98%	21.98%
2 Disagree	14	34	15.38%	37.36%
3 Neither Agree nor disagree	20	54	21.98%	59.34%
4 Agree	29	83	31.87%	91.21%
5 Strongly Agree	8	91	8.79%	100.00%

## Frequency Distribution of Q11\_f

To what extent do you agree with the following statements about factors that inhibit your business from preparing MA reports? Performance Measurement Report: A lack of top management support

		Cumulative		
Q11_f	Count	Count	Percent	Percent
1 Strongly Disagree	15	15	16.48%	16.48%
2 Disagree	13	28	14.29%	30.77%
3 Neither Agree nor disagree	23	51	25.27%	56.04%
4 Agree	27	78	29.67%	85.71%
5 Strongly Agree	13	91	14.29%	100.00%
	1 4 7			

### Frequency Distribution of Q11\_g

To what extent do you agree with the following statements about factors that inhibit your business from preparing MA reports? Performance Measurement Report: A lack of Qualified personnel

		Cumulative		
Q11_g	Count	Count	Percent	Percent
1 Strongly Disagree	15	15	16.48%	16.48%
2 Disagree	15	30	16.48%	32.97%
3 Neither Agree nor disagree	18	48	19.78%	52.75%
4 Agree	30	78	32.97%	85.71%
5 Strongly Agree	13	91	14.29%	100.00%

## Frequency Distribution of Q11\_h

To what extent do you agree with the following statements about factors that inhibit your business from preparing MA reports? Performance Measurement Report: A lack of awareness about management accounting tools

		Cumulative		Cumulative
Q11_h	Count	Count	Percent	Percent
1 Strongly Disagree	12	12	13.19%	13.19%
2 Disagree	19	31	20.88%	34.07%
3 Neither Agree nor disagree	15	46	16.48%	50.55%
4 Agree	33	79	36.26%	86.81%
5 Strongly Agree	12	91	13.19%	100.00%

## Frequency Distribution of Q11\_i

To what extent do you agree with the following statements about factors that inhibit your business from preparing MA reports? Pricing Report: A lack of required resources such as computers

	Cumulative			Cumulative
Q11_i	Count	Count	Percent	Percent
1 Strongly Disagree	19	19	20.88%	20.88%
2 Disagree	15	34	16.48%	37.36%
3 Neither Agree nor disagree	17	51	18.68%	56.04%
4 Agree	30	81	32.97%	89.01%
5 Strongly Agree	10	91	10.99%	100.00%

Frequency Distribution of Q11\_j

To what extent do you agree with the following statements about factors that inhibit your business from preparing MA reports? Pricing Report: A lack of top management support

		Cumulative		
Q11_j	Count	Count	Percent	Percent
1 Strongly Disagree	14	14	15.38%	15.38%
2 Disagree	16	30	17.58%	32.97%
3 Neither Agree nor disagree	22	52	24.18%	57.14%

4 Agree	23	75	25.27%	82.42%
5 Strongly Agree	16	91	17.58%	100.00%

#### Frequency Distribution of Q11\_k

To what extent do you agree with the following statements about factors that inhibit your business from preparing MA reports? Pricing Report: A lack of qualified personnel

	Cumulative			Cumulative
Q11_k	Count	Count	Percent	Percent
1 Strongly Disagree	14	14	15.38%	15.38%
2 Disagree	19	33	20.88%	36.26%
3 Neither Agree nor disagree	23	56	25.27%	61.54%
4 Agree	18	74	19.78%	81.32%
5 Strongly Agree	17	91	18.68%	100.00%

## Frequency Distribution of Q11\_I

To what extent do you agree with the following statements about factors that inhibit your business from preparing MA reports? Pricing Report: A lack of awareness about pricing tools

	Cumulative			Cumulative
Q11_I	Count	Count	Percent	Percent
1 Strongly Disagree	14	14	15.38%	15.38%
2 Disagree	18	32	19.78%	35.16%
3 Neither Agree nor disagree	21	53	23.08%	58.24%
4 Agree	23	76	25.27%	83.52%
5 Strongly Agree	15	91	16.48%	100.00%

## Frequency Distribution of Q12

In what industry does your business operate in?

		Cumulative		Cumulative
Q12	Count	Count	Percent	Percent
1 Cosmetics	7	7	7.69%	7.69%
2 Pharmaceuticals	8	15	8.79%	16.48%
3 House Hold accessories	10	25	10.99%	27.47%
4 Food and beverages	47	72	51.65%	79.12%
5 Others	19	91	20.88%	100.00%

#### Frequency Distribution of Q13

What is your position in the business?

		Cumulativ	/e		Cumulative
Q13	Count	Count		Percent	Percent
1 Manager	57		57	63.33%	63.33%
2 Owner	25		82	27.78%	91.11%
3 Accountant	8		90	8.89%	100.00%

## Frequency Distribution of Q14

How many years of experience do you have in the above position?

		Cumulative		Cumulative
Q14	Count	Count	Percent	Percent
1 Less than 1 year	2	2	2.22%	2.22%
2 1-5 years	34	36	37.78%	40.00%
3 6-10 year	34	70	37.78%	77.78%
4 Above 10 years	20	90	22.22%	100.00%

# Frequency Distribution of Q15

What is your highest level of education?

		Cumulative		Cumulative
Q15	Count	Count	Percent	Percent
1 Matric	23	23	25.27%	25.27%
2 Short course	17	40	18.68%	43.96%
3 Diploma	21	61	23.08%	67.03%
4 Bachelor	23	84	25.27%	92.31%
5 Master's	6	90	6.59%	98.90%
7 Other	1	91	1.10%	100.00%

### Frequency Distribution of Q16

Was the above education accounting related?

		Cumulative		Cumulative
Q16	Count	Count	Percent	Percent
1 Yes	41	41	45.56%	45.56%
2 No	49	90	54.44%	100.00%

## Frequency Distribution of Q17

What is the number of employees in your business?

		Cumulative		Cumulative
Q17	Count	Count	Percent	Percent
2 6-10	30	30	32.61%	32.61%
3 11-20	26	56	28.26%	60.87%
4 21-50	21	77	22.83%	83.70%
5 51-100	15	92	16.30%	100.00%