

# SMALL AND MEDIUM ENTERPRISES (SMEs) AND ADOPTION OF MANAGEMENT ACCOUNTING IN NIGERIA

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## Abstract

This study examines SMEs and adoption of management accounting in Nigeria. The objective solely is to determine the extent of adoption of management accounting (MA) techniques among SMEs. Survey design was adopted to specifically identify the SMEs across the critical sectors of the economy. Data were collected using structured questionnaires based on four point modified likert scale measurement. Analysis of data was carried out using the mean descriptive criterion. The study finds a significant moderate adoption of MA techniques related to cost accounting systems; planning/ budgeting/control systems; a significant high adoption of management accounting techniques related to decision making purposes, a significant low adoption of MA techniques in pricing policy and management reporting systems. It recommends high adoption of MA techniques related to costing systems, planning/ budgeting/control systems, investment decision making, pricing and management reporting systems. Certainly, these MA techniques would impact tremendously on the performance and sustainability of SMEs in the short and long run.

Keywords: Small and Medium Enterprises, Management Accounting Techniques, Management Control and Reporting Systems

## Introduction

The critical role of small and medium scale enterprises (SMEs) in both developed and developing countries has remained significant and popular in many ways. Notably this sector arguably has been linked to have capacity not only for grassroots' economic growth but significant for creation of equitable sustainable development of unimaginable dimension. There is no gainsaying therefore, that most developed countries in the world owed their economic growth and development to the establishment of and support of a robust SMEs sector. Experience has shown that this was why the sector continues to receive massive support

and priority attention from governments of developed countries. Drawing from this experience, the developing countries have also taken cognizance of this fact to acknowledge and recognised importantly that, the SMEs sector is a prime factor to drive desired economic growth and development. In particular, Nigeria has identified the significance of SMEs sector as a potent factor in the quest for economic development and growth. It is not surprising therefore, that massive efforts have been demonstrated in policy and programmes including continuous priority attention and support to SME sector on the basis of its cherished role in propelling reduction in poverty and unemployment

which in recent times have assumed frightening dimensions. Other developing countries have also put the development of the SME sector on the front burner of their economic framework as a major driver of economic posterity and growth. This recognition is particularly important as the SME sector worldwide is seen to be meaningful in accelerating economic advancement through various ways such as; wealth generation, employment creation and poverty reduction (Kithae Gakare & Munyao, 2012).

Development of the SME sector is unarguably very critical, which is the way to go if a country truly desire growth from the grassroots. It constitutes not just a major source of employment generation but generate significant domestic and export earnings if properly harnessed. Furthermore, it is regarded as an important, key instrument in poverty reduction effort and its advancement through concerted efforts, basically would provide a veritable basis for sustained economic growth. Importantly, SMEs constitute an integral part of a country's economic fabric and its success arguably affects the well being of a society because it constitutes the engine room for job creation, economic growth and innovation (Karanja, Mwangi, & Nyaana, 2014). Interestingly, it is considered as an incubating medium for emerging entrepreneurial pursuits which indeed complement the process of adjustment in large enterprises by bringing about both backward and forward linkages for products and services (Kithae et al, 2012). The sector encompasses a wide range of businesses with differing dynamism, technical advancement, risk attitude with many of them relatively stable in technology and scale and

others more technologically advanced thus filling crucial products and services niches. Currently, SMEs operate in an environment which is becoming more complex, dynamic in terms of risks, markets and technological breakthroughs (Dalberg, 2011).

In this regard, there is a compelling need therefore, to ensure that SMEs become more efficient through prudent management of scarce resources, better innovative planning, controlling, decision making, risk management and better appraisal systems. An articulate integration of all of these by a firm would no doubt strengthen its capability to gain competitive advantage given the increasing intense competition occasioned constantly by the changing nature of the operating environment.. As such, maximum cost efficiency, maximization of profit, minimization of risks and gaining of competitive advantage are some of the critical goals SMEs now sought after to realise strategically their goals/objectives in both short and long runs. Attainment of these goals are by no means easy, it requires a comprehensive knowledge and application of a well co-ordinated management accounting techniques virtually in all processes and activities of SMEs. Clearly management accounting techniques provide management with the requisite tools to be more efficient not only in their operations and activities but also in ensuring more effectiveness in their end results.

In Nigeria, available qualitative and empirical literature on accounting systems of SMEs tend to be more focussed on financial accounting, financial management, access to credit and adoption of information technology which indeed is biased against management accounting (MA). As such, it is noteworthy that a relatively small number of studies have

examined the specific use of management accounting techniques by SMEs as a strategic performance management systems as noted by Hudson, Smart and Bourne (2001). This certainly indicates that considerably less attention has been devoted to study the adoption of MA techniques by SMEs. Clearly, this is a noticeable huge research gap that needs to be investigated. Management accounting is of considerable importance as its techniques, skills and knowledge are vital for efficient planning, controlling and decision making that would result in effectiveness and efficiency in any organization. Importantly in the existing sparse literature failure rate of SMEs has been traced to the underlying absence of management accounting skills and techniques, apart from the factors of poor financial accounting, non-access to finance, poor financial management practices and poor technological embrace /adoption (Nandan, 2010) With this observation, one cannot but say that, little is known about the extent to which SMEs in Nigeria have adopted management accounting techniques. On this basis, it underscores the fact that, there seems to be a wide gap in the literature between management accounting and its fulfilling role in meeting managerial needs of SMEs in Nigeria. This is particularly worrisome as owners/ managers of SMEs are seen to have little or no management accounting skills and knowledge which could probably be linked to the slow pace of adoption of management accounting techniques among SMEs in Nigeria. Subtly, this supposedly tends to reduce the importance of management accounting as a vital tool for managerial control and decision making. It is against this backdrop that this study is poised to examine empirically whether SMEs in Nigeria adopt management accounting techniques in their operations and what is the level of adoption. The basic objective therefore is to determine

the level of management accounting techniques adoption, among SMEs in Nigeria as well as aspect of management accounting techniques applicable in cost accounting systems, planning/budgeting/control systems, decision making systems, pricing policy systems and management reporting systems. Arising from the set out objectives, the following hypotheses were drawn and tested at 5%: level of significance

- (i) Ho<sub>1</sub>: There is low adoption of management accounting techniques related to cost accounting system among SMEs
- (ii) Ho<sub>2</sub>: There is low adoption of management accounting techniques related to planning/budgeting/control systems among SMEs
- (iii) Ho<sub>3</sub>: There is low adoption of management accounting techniques related to decision making purposes among SMEs
- (iv) Ho<sub>4</sub>: There is low adoption of management accounting techniques related to pricing policy among SMEs
- (v) Ho<sub>5</sub>: There is low adoption of management accounting techniques related to management reporting systems among SMEs

#### Literature Review

The strategic importance of management accounting to a firm cannot be over emphasized particularly in small and medium scale enterprises which are variously described and seen as the engine room for growth and development in every economy. Literature was reviewed along the line of conceptual and empirical review

#### Conceptual Review

Binnarsley (2008) opined that firms compete in different fronts such as quality, price,

reliability on delivery, and customer service and to effectively deliver on all of these fronts becomes a challenge therefore, the management accountants need to innovate and adapt new methods of management in order to be more relevant on optimal competitive fronts. Failure on the part of management accountants not to be more adaptive to new effective management accounting techniques shall result in other professionals filling the gap which in the long term would render the management accounting less relevant. Kaplan (1984) particularly emphasized that management accounting serves the strategic objectives of the firm. The adoption and practice of management accounting must be tailored to a firm's specific objectives. As such it cannot be universally applied without regard to the firm's individual uniqueness. This is particularly important because of the ever changing nature of business environment which has constantly imposed serious responsibility on management of firms to continuously align strategic plans with strategic goals and objectives in order to remain competitive.

Rapid changes in business environment as noted by Nandan (2010), coupled with product diversification and intensified production, have led to more overhead cost incurrence by activities rather than volume, which has caused conventional management techniques to be of less value. However, the role of management accountants have become significant, particularly given the importance of various strategic decisions which has increasingly caused the shift in focus from traditional to modern management accounting techniques in order to fulfil the emerging need for management accounting as an aid to strategic decision making (Karanja et al, 2014). The shift in focus obviously has led to a wide range of remarkable innovations in management accounting with attendant

positive impact on the firm improvement in processes and outcomes. The evidence is clearly noted through the adoption of innovative modern management accounting techniques such as strategic management, contemporary performance measurement systems the balanced score card, activity-based costing, lifecycle costing (Karanja et al, 2014). This development, according to Kibera (2000), has made management accounting information to be vital in the management of both small and medium scale enterprises which has moved the discipline from a passive role information provider to an active role information provider for decision makers. Arguably, with the unfolding scenario, the hitherto 'relevant lost' opinion canvassed that management accountants have abandoned the concepts of conventional management accounting due to variations and changes in the operating environment may as time went by be regained in the nearest future. In Nigeria, such hope is alive that the supposedly gains appear to be manifesting among SMEs due to gradual adoption of management accounting.

The effectiveness of a particular management accounting technique in any firm is not only a product of a number of factors but a combination of both internal as well as external factors intervening in the operating environment of the firm. In recognition of the operating environment, Sine and Krisch (2006) argue that technology has a very significant influence on the choice of a firm's management accounting practice and that firms' management accounting practices differ due to uniqueness of their individual operations and environment. However, the issues of timeliness, effectiveness, information needs and an adoption of best practice according to Alleyne and Marshall (2011) are important factors responsible for the choice of management accounting

practices adopted by SMEs. Thus, management accounting contemplates and anticipates the firm's environmental factors to refocus the firm for better alignment of strategy and objectives, resource allocation and optimization, identification of business sustaining activities and wasteful activities in order to achieve desired objectives/goals.

In acquiescence, Mbogo (2011) insist that prudent management accounting in several aspects such as information analysis, integration of training level and managerial capabilities of SMEs owners and managers will result in a more strong, positive and significant influence on decision making which are really critical for SMEs growth as well as survival.

#### Empirical Review

From the perspective of the environment, Otley (1980) deploys the contingency theory approach to management accounting practices and observed that there is no single generally applicable standard accounting practice that can be effectively applied to all organizations. The import of the study infers that each organization has its own management accounting practices which best suits its condition and circumstance. Otley (1980) further identify technological changes and organization infrastructure as other influential factors that are of immense importance which will assist management to decide on an appropriate management practice.

Haldma and Kertu (2002) in their study found that the effectiveness of a firm's accounting system design depends primarily on its ability to adapt to changes both in the internal and external environmental factors but not just on its ability to lower real production cost and modernization of cost accounting systems. In addition, they found that some changes in cost and management accounting practices are associated with shifts in the business and

accounting environment as well as external contingencies; including technology and organizational aspects which are internal contingencies.

The study of Szychta (2002) of Polish large manufacturing and service enterprises was quite revealing. The author used survey design and obtained data with the aid of questionnaire instrument. Applying the percentage analytical tool, the study found that most of the large manufacturing and service enterprises prepare annual operating financial budgets for the entire enterprise. In addition, the study found a complete or near complete use of master budget among a smaller proportion of the firms in the sample. The remaining proportion of firms in the sample use sales budgets, production budgets and cost budgets.

Howard, Alan and Glynn (2016) examined the use of management accounting techniques by small and medium-sized enterprises in Australia and Canada. They applied questionnaire and interview techniques in gathering data and used Likert-scale of No, Low, Moderate and High measurements to gauge the extent of management accounting techniques adoption. With the adoption of descriptive statistics they found that of the 19 common management accounting techniques covered in the interview, a very small number are moderately or highly used by the respondent companies. More revealing, they found that the manufacturing companies in the study are more disposed to use a broader set of techniques such as costing systems, operating budgets and variance analysis while early-stage SMEs are the lightest users of management accounting tools overall. They interestingly found three main factors affecting the adoption of MA techniques which are decision-usefulness of the technique, complexity of SMEs operating environment and the age of the SMEs.

The study of Abdel-Kader and Luther (2008) used the contingency framework to examine firm-level characteristics in the operating environment as influencing the use of MA techniques in the drink industry in Britain. They found that sophistication of MA techniques is significantly influenced by the level of environmental uncertainty, customer power, decentralization and firm size of the firms.

Karanja et al (2014) examined the adoption of modern management techniques in small and medium enterprises in Kenya. To achieve the study objectives, the survey research design was used while purposive sampling was adopted to enhanced sample representation of the population. Structured questionnaire instrument and interview guides were used to obtain data from respondents. The data gathered were analysed using the statistical package for social science (SPSS) software. The findings showed that SMEs in Kenya intuitively adopted varying management accounting techniques. The study also revealed that drivers for success and business sustenance such as size of the firm, organizational strategy, perceived critical success factors and age of the firm were the key internal factors that influenced adoption of management accounting practices while the advent of mobile commerce especially payment solutions such as , MPESA, Airtel Money which are competition factors and market innovations such as competition, raw material availability, existing infrastructural network, technological advancement are the key external factors that influenced adoption of management accounting techniques

In a comparative study of Wu, Boateng and Drury (2007) about the use of management accounting techniques between state-owned enterprises and joint ventures in china, found that the joint ventures enterprises are more disposed to adopting certain MA techniques

such as responsibility accounting than the state-owned enterprises.. Hudson, Smart and Bourne (2001) in a similar fashion examined the performance measurement systems of SMEs. They find that measurement systems of SMEs, are not closely linked to the firm's strategy and financial metrics but their measurement systems were developed on an ad-hoc basis by individual managers of the respective SMEs.

Timans, Antony, Ahaus and VanSolingen (2012) examined the use of lean six-sigma approach on Small and Medium-sized manufacturing enterprises that implemented continuous improvement processes in Netherlands. They adopted the survey research design and gathered data through the use of questionnaire and interview instruments. With the application of percentage statistics on the data gathered they found that 40% of the SMEs in the sample use some form of lean six-sigma MA technique while lack of resources was responsible as an impediment to the adoption of the technique

liias, AbdRazek and Yaso, (2010) assessed the adoption of MA practices among Malaysian small and medium enterprises in multiple industries. They adopted survey research design and gathered data with the administration of questionnaire instrument. Using the percentage analysis tool, they found that the larger companies in the sample accounting for 67% of the 58 companies in the sample use budgets for planning and controlling purpose ,very few of the companies use more specialized MA techniques such as target costing and economic value added metrics accounting for 32% and 12% respectively. They equally find that 50% of the companies that responded use some form of activity-based costing technique In an assessment of adoption of MA techniques by small start-up companies by Davila and Foster (2005) in the United States,



they used the survey design and collected data with the aid of questionnaire instrument. The data was analysed with the application of descriptive statistics. They found that most of the companies in the sample use cash and operating budgets and that the smaller companies in the sample adopt limited use of these MA tools than the companies that received venture capital. Chenhall and langfield (1998) found widespread use of capital budgeting tools for investment analysis and Kamilah (2013) found low adoption of long term financial appraisal among SMEs. Demong and Croll (1981) found that with knowledge of budgets, standard cost, cost of production, firms can make decisions relating to pricing and costing of their products.

Moore and Yuen (2001) investigated the use of MA techniques among SMEs at different stages of their life cycle. They adopted a combination of questionnaire and interview instruments to gather data. Applying the percentage statistics method of data analysis, they found that most of the firms rely more on MA techniques as they move gradually from the birth to growth stages while there is a reduced adoption in the declining stage of their life-cycle

The study of Clinton and White (2012) which focussed on the use of MA techniques across different industries in a specific geographical location found that most of the firms in the location that constituted the sample mostly use budgets for planning and control purposes, and customer profitability analysis while there is a limited use of other MA techniques such as discounted cash flow technique, activity-based costing, quality control costing and target costing

#### Research Methodology

Every research endeavour that seeks to empirically investigate an issue particularly in business and social sciences requires a

methodological approach in data gathering, presentation and statistical analysis. This research effort clearly acknowledges the importance of research methodology. The survey research design was adopted as a means of identifying those SMEs which fall within the description of the priority sectors (manufacturing, construction, services and agriculture) considered by the Vision 20-2020 enunciated by the federal government of Nigeria as vital in realising growth, poverty reduction and employment generation. Accounting /finance managers of SMEs constituted the population of the study. Only those businesses that met the range in size and industry criterion of SMEs were considered as the sampling frame which was made up of 135 SMEs that have accounting / finance managers. It was from this sampling frame that 100 SMEs were purposely sampled from the priority sectors identified by government in the Vision 20:2020 document. The respondents mostly consist of accounting / finance managers of SMEs. The choice of respondents was based on the fact these are persons that have undergone some training in accounting and finance and have sufficient knowledge about MA techniques, their applicability and benefits offered to users. The sample size of 100 SMEs Accounting/finance managers was chosen because they have verifiable addresses and are likely expected to employ the very basic MA techniques based on the nature of business, production systems, products and the level of competition in the respective industries. Data were collected through the administration of structured questionnaires basically to cater for sector heterogeneity underscored by differences in operating environment and core competences of the SMEs. The questionnaires were

distributed from 16<sup>th</sup> to 20<sup>th</sup> of March 16, 2016 and retrieved finally on the 18<sup>th</sup> of May ,2016. The gap of 2 months was given as most of the respondents complained of their busy work schedule and needed enough time to study the questionnaires and give unbiased responses. The questionnaire instrument was chosen because it provides adequate scope to explore MA techniques which ordinarily fall within the preconceived notion of what the study expect to observe and study. The adoption of MA techniques was measured by four point modified likert scale measurements from High adoption=4, Moderate adoption=3, Low adoption=2 and No adoption=1. The mean descriptive statistic was used to

determine the level of MA techniques adoption.. The decision rule is that a mean value of 3.0 and above is regarded to be high adoption, 2.50 to 2.99 moderate adoption, 2.00 – 2.. 49 low adoption, 1.99 and below is no adoption. The level of significance was tested at 5% using the Chi-Square statistical test. The reliability and internal consistency of the questionnaire items were tested using the Cronbach's Alpha. Churchill (1979) recommended that the alpha coefficient can be used in measuring the internal consistency. According to Nunnally (1978), an apha value of 0.70 and more is considered sufficient for reliability and validity.

Table 1 Cronbach's Apha Test Results

MA Techniques	No of items	Cronbach's Alpha
<del>Techniques related to cost accounting systems</del>	7	.968
<del>Techniques related to Planning/Budgeting/Control systems</del>	9	.977
Techniques related to Decision Making	4	.980
Techniques related to Pricing Policy	3	.904
Techniques related to Management Reporting	4	.955

Source: Statistical Package for Social Science, version 3.0, 2016

From Table 1 above the Cronbach's Apha test results for each aspect of MA techniques examined ranged from 0.904 for pricing policy techniques to 0.980 for decision making techniques. All the Cronbach's Apha test results were higher than the value of 0.70 which Nunnally (1978) considered sufficient for reliability and validity. In this regard the questionnaire is considered to be reliable and valid.

#### Data Presentation and Analysis

Presentation of Data relating to MA Techniques contained in the Questionnaire. The respondents were asked to indicate the level of adoption Out of the 120 respondents that were given structured questionnaire only 100 actually filled the questionnaire completely while 20 were wrongly filled which made them unusable. The usable questionnaire therefore account for 83.33% which is very high compared to the overall sample. Results emanating from the data as



**Table 2a :Descriptive Statistics for Adoption of MA techniques related to Cost Accounting Systems**

Cost Accounting Systems	N	Minimum	Maximum	Mean	Decision
STANDARD COSTING	100	1.00	4.00	3.0000	High adoption
MARGINAL COSTING	100	1.00	4.00	2.7500	Moderate adoption
ABSORPTION COSTING	100	1.00	4.00	2.8875	Moderate adoption
TARGET COSTING	100	1.00	4.00	1.6250	.Low adoption
ACTIVITY COSTING	100	1.00	4.00	1.6000	.Low adoption
COST ALLOCATION	100	1.00	4.00	2.8125	Moderate adoption
COST APPORTIONMENT F	100	1.00	4.00	2.9375	Moderate adoption
AVERAGE MEAN	100			2.5160	Moderate adoption

Source: Statistical Package for Social Science, version 3.0, 2016

**Table 2b: Chi-Square Test Statistics Results**

	MA TECHNIQUES FOR COST ACCOUNTING SYSTEM
Chi-Square	61.550 <sup>a</sup>
df	18
Asymp. Sig.	.000

a. 19 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 4.2.

Source: Statistical Package for Social Science, version 3.0, 2016

the study believe can be generalize to a large extent in line with other similar studies having usable response rate that fall between 50 % and above in the existing literature (see Howard et al, 2015, and Karanja et al, 2014). Testing  $H_{01}$ : There is low adoption of management accounting techniques related to cost accounting system among SMEs From Table 2a above ,the analysis show that there is a high adoption of standard costing, moderate adoption of marginal costing, absorption costing, cost allocation and cost

apportionment while there is a low adoption of target costing and activity-based costing among SMEs in Nigeria. Generally, the average mean of the MA techniques related to accounting system is 2.5160 suggesting a moderate adoption .The chi-square test result shown in Table 2b above confirms that there is significant moderate adoption of MA techniques related to cost accounting system given the asymptotic significance of .000 at 18 degree of freedom .

**Table 3a :Descriptive Statistics for Adoption of MA techniques related to Planning/Budgeting/Control systems**

Techniques for Planning/Budgeting/Control Systems	N	Minimum	Maximum	Mean	Decision
OPERATING BUDGET	100	1.00	4.00	2.8875	.Moderate adoption
FLEXIBLE BUDGETING	100	1.00	4.00	3.1125	.High adoption
CAPITAL BUDGETING	100	1.00	4.00	2.9750	.Moderate adoption
INCREMENTAL BUDGETING	100	1.00	4.00	2.9500	Moderate adoption
ZERO-BASED BUDGETING	100	1.00	4.00	1.6875	Low adoption.
CONTINUOUS BUDGETING	100	1.00	4.00	2.7250	Moderate adoption
PLANNING,PROGRAMMING AND BUDGETING APPROACH	100	1.00	4.00	1.4750	.Low adoption
BUDGETARY CONTROL	100	1.00	4.00	2.9375	.Moderate adoption
VARIANCE ANALYSIS	100	1.00	4.00	3.1125	.High adoption
AVERAGE MEAN	100			2.6514	Moderate adoption

Source: Statistical Package for Social Science, version 3.0, 2016

**Table 3b: Chi-Square Test Statistics Results**

Test	MA TECHNIQUES FOR PLANNING/ BUDGETING/ CONTROL SYSTEM
Chi-Square	51.250 <sup>a</sup>
df	20
Asymp. Sig.	.000

a. 21 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 3.8.

Source: Statistical Package for Social Science, version 3.0, 2016

Ho<sub>2</sub>: There is low adoption of management budgeting techniques in planning, budgeting accounting techniques related to and controlling of activities and operations planning/Budgeting/control systems among SMEs in Nigeria. Overall, the average means of the planning, budgeting/control systems from the result is 2.6514 which suggest moderate adoption .The results of the Chi-square test in Table 3b above confirms that there is a significant moderate adoption of MA techniques related to planning, budgeting and controlling systems based on the asymptotic value of .000 at 20 degree of freedom

**Table 4a: Descriptive statistics about the adoption of MA techniques related to decision making**

Decision Making Techniques	N	Minimum	Maximum	Mean	Decision
COST BEHAVIOUR	100	1.00	4.00	3.0875	High adoption
COST VOLUME PROFIT ANALYSIS	100	1.00	4.00	2.9250	Moderate adoption
INVESTMENT ANALYSIS IN FINANCIAL ANALYSIS	100	1.00	4.00	3.0875	High adoption
AVERAGE MEAN	100			3.0313	High adoption

Source: Statistical Package for Social Science, version 3.0, 2016

**Table 4b: Chi-Square Test Statistics Results**

Test	DECISION MAKING TECHNIQUES
Chi-Square	134.800 <sup>a</sup>
df	11
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 6.7.

Source: Statistical Package for Social Science, version 3.0, 2016

Ho<sub>3</sub>: There is low adoption of management accounting techniques related to decision making purposes among SMEs in Nigeria has a high adoption of cost behaviour analysis, investment analysis, financial statement and a moderate adoption of cost volume profit analysis. Overall the adoption of these techniques among the sampled SMEs for decision making is high given the average mean of 3.0313. The Chi-square results in Table 4b above confirms that there is a high adoption of MA techniques related to decision making given the asymptotic value of .000 at 11 degree of freedom

**Table 5a: Descriptive Statistics for Adoption of MA techniques related to pricing policy**

Pricing Policy Techniques	N	Minimum	Maximum	Mean	Decision
MARGINAL COSTING	100	1.00	4.00	1.5625	Low adoption
FULL COST PLUS	100	1.00	4.00	3.0500	High adoption
RETURN ON INVESTMENT	100	1.00	4.00	1.5875	Low adoption
AVERAGE MEAN	100			2.0667	Low adoption

Source: Statistical Package for Social Science, version 3.0, 2016

**Table 5b : Chi-Square Test Statistics Results**

Test	PRICING POLICY TECHNIQUES
Chi-Square	70.300 <sup>a</sup>
df	8
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.9.

Source: Statistical Package for Social Science, version 3.0, 2016

Ho<sub>4</sub>: There is low adoption of management accounting techniques related to pricing policy among SMEs

Table 5a above shows the descriptive statistics for adoption of MA techniques related to pricing policy. It reveals in clear terms that there was a low adoption of marginal costing and return on investment while a high adoption of full cost plus techniques in pricing

of SMEs in Nigeria. The overall mean of the techniques is 2.0667 which indicate a general low adoption among the sample SMEs. Results from the Chi-square test in Table 5b above confirms that there is a significant low adoption of MA techniques related to pricing policy given the asymptotic value of .000 at 8 degree of freedom

**Table 6a : Descriptive Statistics for Adoption of MA techniques related to management reporting systems**

Management Reporting Techniques	N	Minimum	Maximum	Mean	Decision
SEGMENTAL REPORTING	100	1.00	4.00	1.8250	Low adoption
BALANCED SCORE CARD	100	1.00	4.00	2.1625	Low adoption
PRODUCT PROFITABILITY	100	1.00	4.00	2.9250	Moderate adoption
CUSTOMER PROFITABILITY	100	1.00	4.00	2.8750	Moderate adoption
AVERAGE MEAN	100			2.4456	Low adoption

Source: Statistical Package for Social Science, version 3.0, 2016

**Table 6b : Chi-Square Test Statistics Results**

Test	MANAGEMENT REPORTING SYSTEM
Chi-Square	24.000 <sup>a</sup>
df	12
Asymp. Sig.	.020

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 6.2.

Source: Statistical Package for Social Science, version 3.0, 2016

Ho<sub>5</sub> : There is low adoption of management accounting techniques related to management reporting systems among SMEs

Table 6a above presents the descriptive statistics for adoption of MA techniques related to management reporting systems. It shows that there was a low adoption of segmental reporting and balanced score card while there was a moderate adoption of product profitability and customer reporting among SMEs operating in Nigeria. The overall average mean is 2.4456 which indicate a low adoption among the SMEs in the sample. The

results from Table 6b above confirms that there is significant low adoption of MA techniques related to management reporting system given the asymptotic value of .000 at 12 degree of freedom.

#### Discussion of Findings

At the outset of the study, specific objectives were set which formed the basis for drawing up the research hypotheses and consequently led to collection of data. The study found from the data analysis that there was a moderate adoption of MA techniques relating to cost

accounting systems used in SMEs in Nigeria. Thus the null hypothesis was rejected. The implication of this finding is that most of the SMEs recognize the importance of installing a cost accounting system. The result is consistent with the findings of Howard et al (2016). The study equally found a low adoption of activity based costing technique. This result is in line with the findings of Clinton and White (2012). It is the cost accounting systems that generate the cost information used by the management accounting system to present cost information in an analytical manner about material cost, labour cost, production overhead cost as well as non-production overhead costs. All these costs are essential in determining the unit cost of production. As a result, the high adoption of standard costing among the SMEs re-emphasize the need of cost determination, control of cost and cost behaviour attitude of owners/managers.

The study found that there was a moderate adoption of management accounting techniques related to planning, budgeting/control systems. In this regard the null hypothesis was rejected. This is particularly interesting because the SMEs have not failed to recognize the utmost importance/benefits of planning and controlling of activities/ operations which budgets and budgetary techniques offer. The finding is incongruence with the results of Howard et al (2016), Ilias et al (2010), Szycha (2002), Clinton and White (2012). Budgets provide a clear direction of what a firm wants to do in the future and what to achieve. On the other hand, budgetary techniques such as budgetary control and variance analysis assist in a great measure in ensuring control of activities so that deviations from expected results are quickly identified, corrected to avoid future occurrence. No wonder there was

high adoption of flexible budgeting and variance analysis.

Importantly, a high adoption of management accounting techniques related to decision making purposes was found which led to the rejection of the null hypothesis. The result is consistent with Chenhall and Langfield (1998) finding and contrary to Kamilah (2013) findings. This is particularly exciting that the sampled SMEs place high premium on proper analysis using cost behaviour analysis, investment analysis and financial analysis in every of their activities. The relationship between cost and activity levels is usually considered as a basis for establishing a cost function which serves as an instrument for prediction and forecasting of activities. This is attested to by the high adoption of cost behaviour analysis. Forecasting and prediction of the effects of volume on cost, revenue and profit using the cost volume profit analysis (CVPA) was particularly high among the SMEs. Investments in assets and projects under go thorough analysis in terms of capital outlays, cost and benefits derivable over a period of time. Improvements of performance over the year by SMEs and benchmarking with firms in the same industry are carried out with financial statement analysis by the SMEs sampled in the study. The import of this finding is that the SMEs are very familiar with the use of these management accounting tools that assist owners/ managers in decision making.

Pricing policy is an important area that influences profitability of a business. A well articulated pricing policy positions a firm at a competitive edge over other competitors producing similar products. This study found in general a low adoption of MA techniques in pricing decisions. More revealing was that majority of the SMEs are more familiar with the adoption of Full cost plus technique in

pricing in preference to marginal costing and return on investment techniques. This finding agrees with the result of Demong and Croll (1981). However, the low adoption of marginal costing and return on investment techniques is probably because the SMEs are not aware of the benefits accruable from these two techniques. Their focus on full cost plus pricing is because they are keenly interested in recovery of all cost incurred and have a margin that could be ploughed back for expansion or meet other expenditures which would make the firm to be stable, competitive, sustainable and growth oriented.

Management reporting system is a critical component of management accounting. The study found a low adoption of MA techniques in management reporting. This could probably be connected to the fact that owners/managers of the SMEs constitute the management team. The essence therefore of management reporting is played down. For instance, the value addition to effective management through management reporting cannot be de-emphasized. But the results of low adoption of segmental reporting and balanced score card in this study suggest otherwise. This is particularly understandable because most of the SMEs are not diversified and have not appreciated or heard about the existence and importance of segmental and balanced score card reporting. However, there was a moderate adoption of product profitability and customer profitability reporting. This is consistent with the findings of Clinton and White (2012). It suggests further that some of the SMEs have good knowledge of the benefits derivable in product and customer profitability reporting. This is also understandable because the SMEs are concerned with product development, customer base creation and customer

retention as a strategy to compete favourably in the environment. Persistence reporting of product and customer profitability provides opportunity to leverage upon for growth and survival in a constantly changing business environment which the Nigeria business environment depicts.

Overall, the study reports that in the sample, the manufacturing firms are larger in size and showed more proclivities in the adoption of most MA techniques which is consistent with the findings of Howard et al, (2015). Those in construction, services and agriculture are smaller in size compared to the manufacturing firms and they showed limited adoption of MA techniques investigated which is in tandem with the findings of Davila and Foster (2005).

#### Conclusion and Recommendations

Based on the findings emanating from the study, MA techniques are not strange to most of the SMEs in Nigeria. This is obvious because many of the SMEs were found to be familiar with some basic MA techniques. From the standpoint of the study, one cannot but appreciate the observation that some of the MA techniques used by SMEs are carefully considered as appropriate for use in their various activities and operations. This is consistent with the view expressed by Kaplan (1984). Importantly, the study contributes to knowledge because it was able to establish a moderate adoption of MA techniques related to cost accounting systems, planning, budgeting/control systems, a high adoption of management accounting techniques related to decision making purposes, a low adoption of MA techniques in pricing and management reporting systems. Consequently, the study recommends continued high adoption of MA techniques related to costing systems, planning, budgeting/control systems,



investment decision making purposes, pricing policy decisions and management reporting. Certainly, high adoption of these MA techniques would impact tremendously on the performance and sustainability of SMEs in the short and long run.

#### References

- Abdel-Kader, M & Luther, R (2008) .Impact of firm characteristics on management accounting practises. A UK-based empirical analysis. *The British Accounting Review*, 40(1):2-27
- Alleyne, P & Marshall, D.W.(2011). An exploratory study of management accounting practices in manufacturing companies in Barbados. *International Journal of Business and Social Science*, 2(9):49-59.
- Binnersley (2008) .Do you measure up? Charte Paper presented at the Academic Business World. Nashville, Tennessee
- Chenhall, R.H & Langfield, S.K (1998).Adoption and benefits of management accounting practices:An Australian study. *Management Accounting Research*, 9 :1-19
- Churchill (1979) A paradigm for developing better measures of marketing constructs .*Journal of Marketing Research*,16 (1) :64-73
- Clinton, B & White, L (2012). Roles and practices in management accounting from 2003-2012.*Strategic Finance*, November: 37-43
- Dalberg Consultancy (2011).Report on support to SMEs in Developing Countries through financial intermediaries in D. Group (ed),Geneva. Available at <http://www.eib.org/attachments/dalberg-sme-briefing-papaer.pdf>. Assessed on 31st May,2016.
- Davila, A & Foster, G (2007). Management control systems in early-stage start-up companies. *The Accounting Review*, 82 94): 907- 607.
- Demong, R.F & Croll, D.B. (1981).Cost accounting for small business. *American Journal of Small Business*, 5 : 48-60
- Haldma, T & Kertu, L (2002). Contingencies influencing the Management Accounting Practices of Eastonian manufacturing companies. *Management Accounting Research*, 13 (4) :379-400
- Howard, M. A., Alan ,W. & Glynn, J (2014). The use of management accounting techniques by small and medium –sized enterprises: Afield study of Canada and Australian Practice. *Accounting Perspective*, 15 (1) : 31-69.
- Hudson, M. Smart, A & Bourne, M. ( 2001).Theory and practice in SMES Performance measurement systems. *International Journal of Operations and Production Management* 21(8):1096-1115
- Ilias, A., .Abd Razek, M & Yaso, M (2010). The preliminary study of management accounting practices in small businesses. *Global Business and Management Research: An International Journal*, 2 (10 :79-88
- Kamilah, A (2013). The adoption of management accounting practices in Malaysian small and medium-sized enterprises. *Asian Social Science*, 10(2):236-249
- Kaplan, R.S.(1984).The evolution of management accounting. *The Accounting Review*, 59 (3): 390- 418
- Karanja, J.C.N, Mwangi, E & Nyaana, P (2014). Adoption of modern management accounting Techniques in SMEs in Developing Countries: A case of SMEs in Kenya. Available at <http://www.research.jkpyjee7ezMjk>. Accessed on 28<sup>th</sup> May, 2016
- Kibera, L (2000). The role of small scale enterprises in socio-economic development and poverty alleviation in Kenya. A gender perspective .A paper presented at the 7<sup>th</sup> Annual international Management Conference in Kampala, Uganda.
- Kithae, P.P., Gakare ,R.W & Munyao, L.M. (2012).The place of micro and small

- enterprises in Kenya in achievement of Kenya's Vision 2030. *Journal of United States-China Public Administration*, 9 (12): 1432-1440.
- Luther, R.G. & Longden, S (2001). Management accounting in companies adapting structural change and volatility in transition economies: A South African Study. *Management Accounting Research*, 12 (3): 22-32
- Mbogo, M (2011). Influence of Managerial Accounting Skills on the success and growth of small and medium enterprises in Kenya. *Journal of Language, Technology and Entrepreneurship in Africa*, 3 (1): 109-132.
- Moores, K & Yuen, S. (2001). Management accounting systems and organizational configuration: A life-cycle perspective. *Accounting, Organizations and Society*, 26 (4-5): 351-389.
- Nandan, R (2010). Management Accounting needs of SMEs and role of professional Accountants: A Renewed Research Agenda. *Journal of Applied Management Accounting Research*, 8(1): 65-78
- Nunnally (1978). *Psychometric Theory* (2<sup>nd</sup> ed.). New York. McGraw Hill.
- Otley, D.T (1980). The Contingency Theory of management achievement and prognosis. *Accounting, Organization and Society*, 5 (4): 413-428.
- Sine, W.D. & Krisch, D.A (2006). Revisiting Burns and Stalker: Formal structure and new venture performance in emerging economic sectors. *Academy of Management Journal*, 40 (1): 121-132.
- Szychta, A (2002). The scope of application of management accounting methods in polish enterprises. *Management Accounting Journal*, 13 (4): 401-418.
- Timans, W., Antony, J, Ahaus, K & Van Solingen, R (2012). The implementation of lean six-sigma in small and medium-sized manufacturing enterprises in the Netherlands. *Journal of the Operational Research Society*, 63: 339-353
- Wu, J., Boateng, A & Drury, C (2007). An analysis of adoption, perceived benefits, and expected future emphasis of western management accounting practices in Chinese state-owned enterprises and joint venture enterprises. *The International Journal of Accounting*, 42 (2): 171-185.

