

**MANAGEMENT CONTROLS SYSTEM, FIRM CONTINGENCIES AND
PERFORMANCE OF SMALL AND MEDIUM MANUFACTURING ENTERPRISES IN
LAGOS, NIGERIA**

BY

**ABDULRASAQ MUSTAPHA
B.Sc., M.Sc.(Accounting), ACA**

MATRIC NO: 14/27/PAC007

**BEING A THESIS SUBMITTED TO THE
DEPARTMENT OF ACCOUNTING AND FINANCE,
COLLEGE OF HUMANITIES, MANAGEMENT AND SOCIAL SCIENCES,
KWARA STATE UNIVERSITY, MALETE.
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF
DOCTOR OF PHILOSOPHY (Ph.D.) DEGREE IN ACCOUNTING**

SUPERVISOR: DR. MUBARAQ SANNI

MARCH, 2019

CERTIFICATION

This is to certify that this Ph.D. research thesis has been read and approved as meeting the requirements of the Department of Accounting and Finance, College Humanities, Management and Social Sciences, Kwara State University, Malete, Nigeria.

Dr. Mubaraq Sanni
Main Supervisor

.....
Signature and Date

Prof.Mashood Lanre Nassar
Co-Supervisor

.....
Signature and Date

Dr. Emmanuel Oyamedan Imoloame
Head of Department

.....
Signature and Date

Prof. Stephen Kayode
Dean, School of Postgraduate Studies

.....
Signature and Date

External Examiner

.....
Signature and Date

DECLARATION

I hereby declare that this thesis titled: Management Controls System, Firm Contingencies and Performance of Small and Medium Manufacturing Enterprises in Lagos, Nigeria is my own work and has not been submitted or presented by me and to the best of my knowledge, by any other person for any course or qualification at this or any other academic or research institution. I also declare that the information provided herein are mine and those that are not mine have been properly acknowledged

.....

Abdulrasaq Mustapha

.....

Date

DEDICATION

I dedicate this thesis to my dear wife, Mrs. Mustapha Fauziyat

ACKNOWLEDGEMENTS

I give thanks to Almighty Allah, with whom all things are possible, for sparing my life and providing all resources that made this thesis become reality. I am indeed grateful to my supervisor, Dr.Mubaraq Sanni who, notwithstanding his numerous schedules of duty, painstakingly read this thesis for proper corrections. He has, by his commitment and attention to detail, added value to this work. He is highly appreciated.

My sincere and profound gratitude also goes to all Professors in the Department of Accounting and Finance, Kwara State University, Malete: Professor M.L.Nassar; Professor K. Adeyemi and Professor M. Odedokun for their professional advices in making this study successful. I thank you all for your sincere mentoring.

I am also indebted to all lecturers in the Department of Accounting and Finance, Kwara State University, Malete, Dr.E.O.Imoloame, Head of Department, Dr.Afolabi Adeoye, Mr.Dauda Badmus, Alhaji Salawudeem Ibrahim, Mr,Tunde Abdulsalam, Mr. layiwola Kadir, Mr.TajudeenLawal, Mr.Alade Ademokoya, Mr.Umar Hussain, Mr.Lukuman Adam, Mr.Babajide Success. I also appreciate Mrs.Oluganna Unice ,and Mrs.Nusirat Gold, for their cooperation, understanding and supports. The effort and cooperation of Mr.Akeem, administrative officer of the Department, is highly appreciated too.

I am highly grateful to Dr. Musa Biala of the Department of Economics and Dr. Mashood Zakariyau of the Department of Literary studies (English Language Unit), Kwara State University, Malete for their constructive observation and contribution towards the completion of this research work. You are most appreciated and acknowledged.

My appreciation also goes to Alhaji Abdulrazzaq Salman Sholagberu for his financial assistance during this Ph.D. Degree programme. I sincerely thanks him for being there for me in actualizing my dream. May almighty Allah reward him abundantly.

I am very grateful to all my family members: Saliu Mustapha and Nafisat Sasandeen, Abdulganiy Mustapha, Babatunde Mustapha and Mulikat Mustapha, for their moral supports.

Table of Contents

Certification	ii
Declaration	iii
Dedication	iv
Acknowledgement	v
Table of Contents	vi
List of Tables	xii
List of Figures	xiv
Abstract	xv
CHAPTER ONE: INTRODUCTION	
1.0 Background to the Study	1
1.1 Statement of the Problem	5
1.2 Research Questions	7
1.3 Research Objectives	8
1.4 Research Hypotheses	9
1.5 Justification for the Study	10
1.6 Scope of the Study	12
1.7 Organisation of the Study	12
CHAPTER TWO: LITERATURE REVIEW	
2.1 Conceptual Review	14
2.1.1 Management Control System (MCS)	14
2.1.2 Management Control System Techniques	15
2.1.3 Management Controls Frameworks	16

2.1.3.1 Ouchi's Framework for the Analysis of Organizational Controls	16
2.1.3.2 Simon's Lever of Control Framework	17
2.1.3.3 Otley's Controls Framework for Modern Management	17
2.1.3.4 Merchant and Van Der Stede's Object of Controls Framework	19
2.1.4 Firm Contingencies or Contingency Factors	25
2.1.4.1 Perceived Environment Uncertainty	26
2.1.4.2 Task Uncertainty	27
2.1.4.3 Firm Age	27
2.1.4.4 Institutional Pressures	27
2.1.5 Contingency Fit Approaches	28
2.1.6 Meaning and Characteristics of SMEs	30
2.1.7 Firm Performance	32
2.2 Theoretical Review	33
2.2.1 Agency Theory	34
2.2.2 Social Control Theory	37
2.2.3 Contingency Theory	38
2.2.4 Institutional Theory	39
2.3 Empirical Studies	40
2.3.1 Usage of Level of Accounting Control System and Performance	40
2.3.1.1 Studies on Developed Countries	40
2.3.1.2 Studies on Developing Countries	45
2.3.1.3 Studies on Nigeria	46
2.3.2 Non-Accounting Control System and Performance	49
2.3.2.1 Studies on Developed Countries	49

2.3.2.2 Studies on Developing Countries	51
2.3.2.3 Studies on Nigeria	52
2.3.3 Combined Use of Accounting and Non-Accounting Control System and Performance	53
2.3.3.1 Studies on Developed Countries	53
2.3.3.2 Studies on Developing Countries	61
2.3.4 Contingency Factors, Accounting and Non-Accounting Controls System	63
2.3.4.1 Studies on Developed Countries	63
2.3.4.2 Studies on Developing Countries	71
2.3.4.3 Studies on Nigeria	76
2.4 Summary of Findings and Gap Identified in the Literature	78
2.4.1 Summary of Findings in the literature	78
2.4.2 Gap Identified in the Literature	80
2.5 Theoretical Framework	82
CHAPTER THREE: METHODOLOGY	
3.1 Research Philosophy and Strategy	87
3.2 Research Design	87
3.3 Population of the Study	88
3.4 Sample Size and Sampling Selection Technique	89
3.4.1 Quantitative Strategy	89
3.4.2 Qualitative Strategy	90
3.5 Research Instrumentation	90
3.5.1 Quantitative Data	90

3.5.2	Qualitative Data	92
3.6	Validity and Reliability Test of the Instrument	92
3.6.1	Quantitative Strategy	92
3.6.2	Qualitative Strategy	92
3.7	Models Specification Based on Quantitative Strategy	93
3.7.1	Model on the Relationship between Contingency Factors and MCS	93
3.7.2	Model on the Effect of Fit between Accounting Control System/Non-Accounting and Internal Contingencies on SMEs Performance	96
3.7.3	Model on the Effect of MCS (Accounting and Non-Accounting Control System) on Firm Performance	97
3.8	Definition and Measurement of Variables	98
3.8.1	Definition of Variables	98
3.8.1.1	Management Control Constructs	98
3.8.1.2	Performance	99
3.8.1.3	Contingency Variables	100
3.8.2	Measurement of Variable	100
3.9	Method of Data Analysis	104
3.9.1	Quantitative Analysis	104
3.9.1.1	Estimation Technique of the Independent Variables Parameters	105
3.9.2	Qualitative Analysis	106
CHAPTER FOUR: RESULTS AND DISCUSSION OF FINDINGS		
4.1	Assessment of the Data Sample	108
4.1.1	Response Rate of Quantitative Strategy	108

4.1.2	Response Rate of Qualitative Strategy	109
4.1.3	Evaluation and Treatment of Missing Data	110
4.2	Descriptive Statistics of the Company and Respondent Profile	111
4.2.1	Company's Profile	111
4.2.2	Respondents' Profile	112
4.3	Descriptive Statistics of the Indicators of the Variables	113
4.3.1	Descriptive Statistics of all Measurement Items for Management Control Variables	113
4.3.2	Descriptive Statistics of all Measurement Items for Contingency Variables and Firm Performance	120
4.4	Preliminary Analysis of Quantitative Data	126
4.4.1	Normality and Linearity Tests	126
4.4.2	Multicollinearity Test	129
4.4.3	Factor Analysis and Reliability Test for Contingency Variables	131
4.5	Restatement and Testing of Hypotheses	134
4.5.1	Influence of Institutional Pressures on the Usage Level of Accounting and Non-accounting Control System	134
4.5.2	Influence of Contingency Factors on the Usage Level of Accounting and Non-accounting Control System	139
4.5.3	Influence of Planning, Measurement, Compensation, Structure, Policies and Procedures and Socio-cultural Control on Firm Performance	144
4.5.3.1	Assessment of the Measurement Model	145
4.5.3.1.1	Assessment of Reliability	145

4.5.3.1.2 Assessment of Validity	147
4.5.3.2 Structural Model	149
4.5.3.2.1 Path Coefficient Result for Hypotheses Testing	150
4.5.3.2.2 Coefficient of Determination	151
4.5.4 Impact of the Degree of Fit between Accounting and Non-accounting Control System and Contingency Factors on Firm Performance	155
4.6 Summary of Hypotheses Tested	157
4.7 Discussion of Findings	160
4.7.1 Influence of Institutional Pressures on the Usage Level of Accounting Controls and Non-accounting System	160
4.7.2 Influence of Perceived Environmental Uncertainty, Task Uncertainty and Firm Age on the Usage of Level of Accounting Controls System and Non-Accounting Control System	162
4.7.3 Influence of Accounting Control and Non-Accounting Control Systems on Firm Performance	165
4.7.4 Influence of Fit between Management Control System and Internal Contingencies on Performance	169
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDARIONS	
5.1 Summary	170
5.2 Conclusion	174
5.3 Recommendations	175
5.4 Contributions to Knowledge	177
5.4.1 Conceptual Contributions	177

5.4.2	Theoretical Contributions	177
5.4.3	Methodological Contributions	178
5.4.4	Contributions to Practice and Policy Formulation	178
5.5	Limitations to the Study	179
5.6	Suggestions for Further Studies	179
	References	180
	Appendices	194

LIST OF TABLES

2.1	Description of MCS Package	22
2.1.5	Contingency Fit Approach	29
2.2.1	Agency Theory Overview	35
3.8.2	Measurement of Variables	101
3.9	Research Questions and Statistical Analysis	107
4.1.1	Response Rate Statistics of Quantitative Strategy	108
4.1.2	Response Rate Statistics of Qualitative Strategy	109
4.2	Missing Value Statistics	110
4.3	Company's Profile	111
4.3.1	Respondents & Managers' Profile	112
4.4.1	Planning	114
4.5	Measurement	114
4.6	Compensation	116
4.7	Structure	117
4.8	Policy and Procedure	118
4.9	Socio-Cultural	119

4.10	Task Uncertainty	121
4.11	Perceived Environmental Uncertainty	122
4.12	Regulatory Pressure	124
4.13	Association Pressure	124
4.14	Provider of Capital	124
4.15	Firm Performance	125
4.16	Normality Test	127
4.17	Pearson's Correlation Matrix	130
4.18	Variance Inflation Factors and Tolerance	131
4.19	Factor Analysis and Reliability Measures for the Contingency Variable	132
4.20A	Regression Result on Influence of Institutional Pressure and Accounting Control	136
4.20B	Regression Result on Influence of Institutional Pressure and Non- Accounting Control	137
4.21A	Regression Result on Contingency Factor and Accounting Control System	140
4.21B	Regression Result on Contingency Factor and Non-Accounting Control System	141
4.22	Reliability Measures for the Reflective Structure	145
4.23	Discriminant Variability Test	147
4.24	Cross-Loading Latent Variables	148
4.25	Significant of Path Coefficient	150
4.26	Assessment of Effect Size	151
4.27	Coefficient of Determination	151

4.28	Predictive Relevance	152
4.29	Regression Result on Degree of Fit	156
4.30	Summary of Hypotheses Testing	157

LIST OF FIGURES

2.61	Conceptual Model of MCS, Firm's Contingency and Performance	85
4.1	Histogram of Normal Probability Plot	128
4.2	Residual Scattered Plot	129

ABSTRACT

Management control constitutes one of the critical functions of management in organization. However, little or no attentions have been given to design and use of this very important function of management. Much of the mechanisms or techniques acknowledged to be in use to carry out management control functions are limited to accounting-based control techniques which have been criticized to have behavioral dysfunctional consequences such as lack of direction, efforts aversion and other self-interested behaviours. To prevent or avert these dysfunctional behaviours, appropriate design that takes into account relevant contingency factors is very essentials. In view of the foregoing, the study investigated how Small and Medium Manufacturing Enterprises (SMMEs) engage in the practice of Management Controls System (MCS) in context of relevant contingency factors and its effect on performance. The study obtained quantitative data through self-administered questionnaire from randomly selected 262 managers as well as qualitative data, through face-to-face interview, from purposively selected 13 managers of small and Medium Manufacturing Enterprises in Lagos State respectively. The obtained quantitative data were subjected to multiple regression analysis (Ordinary Least Squares) and Partial Least Squares (PLS-SEM) while the qualitative data were narratively analysed. The result of quantitative analysis was enhanced by qualitative evidence. The findings of the study revealed that both institutional contingency (association and regulatory) and other firm's factors: Perceived Environmental Uncertainty (PEU) and Task Uncertainty (TU)) influence the choice of accounting and non-accounting control systems. In addition, variation in performance of Small and Medium Manufacturing Enterprises (SMMEs) was attributed to four management control mechanisms. In relation to institutional contingency factors, association pressures significantly influence usage level of accounting control system (t -value=4.000 P -value < 0.01) while both association and regulatory pressures significantly drive the usage level of non-accounting control system (t -value=3.867, P -value < 0.01) and (t -value=2.896 P < 0.01) respectively. For firm contingency factors, both PEU and TU significantly explained variation in the usage level of both accounting control system [PEU :(t -value=4.360, P -value<0.01)and [TU:(t -value=3.223, P -value<0.01)] and non-accounting control system [PEU :(t -value=6.583, P <0.01) and TU :(t -value=6.993 P <0.01)]. On the variation in performance of the focused firms, two accounting control mechanisms: compensation (t -value=2.573, P <0.05) and Planning (t -value=4.882, P -value<0.01) significantly impact on performance while Policies and procedures(t -value=3.125, P <0.01) and socio-cultural control(t -value=5.732, P <0.01) also to a large extent, drive the performance of SMMEs. In addition to the aforementioned, findings also revealed existence of lack of fit between accounting control system and firms' contingency factors. The thesis concluded that managers of Small and Medium Manufacturing Enterprises employ some accounting and non-accounting control mechanisms to achieve goal congruence among their subordinates and to a greater extent, the practices impact positively on performance. Therefore, the study recommended that SMMEs should integrate both accounting and non-accounting control mechanisms into the design of their control system architecture, with focused attention on relevant contingency factors to achieve goal congruence.

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

Management control constitutes one of the critical functions of management in an organisation. It is being used to realize goals congruence between the management and subordinates. As the contemporary business activities cannot be carried out by single individual, cooperation of employees or subordinates becomes inevitable. Management is therefore expected to perform management control function using arrays of management control mechanisms. But unfortunately, many efforts have been devoted to other management functions and processes leaving management control system at the mercy of itself. Speckbacher (2008) echoed this trend in this perspective *“Everybody is talking about planning and strategy, but nobody is talking about control”*. Even where attentions are being given to this very important function, much emphasis are given to control mechanisms, such as budget and other accounting-based control techniques, that do not have capacity to curtail or prevent all causes of management control problems. The less attention given to the design and use of control systems in many business settings has far-reaching negative effects such as deteriorated employee morale, impaired business relation, losses of revenue as well as fine and penalties.

Lack or inappropriate design of management control system (MCS) may cause havoc to the existence of a firm. This is even more pronounced in small and medium enterprises that cannot withstand small shock of any nature. Management control problems have been affirmed to induce unethical behaviors ranging from budgetary slack, data manipulation to loss of considerable assets of the business (Marchant & Van de Stede, 2007). Much of these dysfunctional behaviors have been attributed to the much emphasis placed on the use of accounting-based control mechanisms, particularly budget. Although, budget has the power of addressing the problems of lack of direction, motivation and personal limitation to some extent, it has been facing serious criticisms in the rapid changing environment. The shortcomings stem from being less concerned with the social and behavioral aspects of the organizational participants (Macintosh, 1994; Otley, 1999; Whitley, 1999). Indeed, Budget and other accounting performance measures are often accused of stifling innovation and learning (e.g.

ProQuest Number: 13886437

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 13886437

Published by ProQuest LLC (2019). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

Bartlett & Ghoshal, 1993; Emmanuel, Otley, & Merchant, 1990; Hope & Fraser, 2003 ;), encourage or induce data manipulation, interdepartmental strife, job-related tension, group based 'anti-management' behavior, 'gaming' and short-termism (Marginson & Ogden, 2005). Furthermore, Belkaou (2002) gave three problems with this traditional control system: lack of connection between planning and doing, static rather than dynamic and rigidity which may lead to resentment by individual being controlled. Otley (2016) expressed the consequences of motivating subordinates through only quantitative performance targets as this

There is overwhelming empirical and anecdotal evidence to this effect from both the private sector (e.g., call center operatives cutting off calls before they reach the target time for dealing with enquiries) and public sector (e.g., School Teachers concentrating on those pupils whose results will most affect the performance target; hospital ambulances being made to wait outside A&E department so as not to start the time clock for target times etc.). Even University Academics have been affected by the Research assessment Exercise in the UK where administrators have converted the subjective rule involving peer judgment to quantitative targets of achieving a given number of articles in journals believed to have a high quality rating. (p.5).

In response to the limitation of accounting control systems, the need to broaden the scope of MCS becomes imperative. The expansive MCS contain both quantitative accounting control and non-accounting control systems (Otley, 1999). The non-accounting control system adopts a more comprehensive insight into the control of organization members. It captures the intangible variables such as: organisation goals, strategies, managerial intentions and employee motivation. These make it richer in terms of information content than accounting system. Verstegen (2006) argued that accounting techniques used in conjunction with other coordinating systems enhance decision makers' role of influencing the behavior of subordinates. Recently, discussions have emerged in the literature on the argument that control components do not operate in isolation rather they relate as a package or system and thus the effect of a component must be considered along with other components being used at the same time (Malmi & Brown, 2008). Essentially, how accounting control components relate to non-accounting controls such as administrative and

cultural controls is a serious matter of concern that must be addressed if the attendant problems of inappropriate controls are to be averted. Indeed, much of the organization scandals cited in the literatures have been attributed to lack or inappropriate use of management controls mechanisms (Cughero-Escofet & Rosanas, 2013).

Some instances of these scandals was declaration of venerable UK bank Baring Brothers, founded 1817 as bankrupt. Investigation carried out to unravel the causes of the failure revealed major weakness in the Baring's control systems, including lack of segregation of duties, lack of position limit and confused line of management responsibility (Bank of England, 1995). Similarly, in 2001 a keystroke error by an employee of Lehman Brothers Holding in London cost the firm 6 million dollars in trading losses. Although, it was discovered the error was unintentional, the company was liable for the damages caused by the errors. Similar cases of management control problems have also been reported in the United States. National Archives and Record Administration reported a case of stealing perpetrated by its employee due to inappropriate control system. The subordinate stole dozen of historical documents between 1996 and 1999 worth 20,000 dollars which was discovered in 2002 (The Los Angeles Times, 2002). In 2002, US immigration and National Services accused two of his employees of destroying thousands of Immigration documents. Based on investigation, the employees engage in destruction of documents to cover up backlog of about 90,000 documents and effectively reduced the backlog to zero. Although evidences of organization scandals attributed to management control failures are not usually celebrated in newspapers and relevant periodicals in developing countries, Abe (2012) attributed Banking and other industrial sectors failures in Nigeria to inappropriate use of management control system.

Problems of inappropriate design and use of management control elements are more pronounced, given the limited nature of organization ability and capacity to predict and exert pressure on contingency, factors that bear relevance to their existence. Hopwood & Miller (1994) and Chapman, Cooper and Miller (2009) are among the prominent scholars who supported the argument that accounting and other control elements have bearing with the broader organizational and environmental and institutional contexts in which it is located. In other words, there is no best MCS design but it all depends upon contextual factors. Thus, a mismatch between management control system and organization's contingency factors may even worsen

the problems of MCS design and use. Speckle (2004) raised series of questions to amplify the ultimate problems of management control as a field of scholarly inquiry as follows:

Why is it that some organizations use extensive, formal planning to direct their efforts, whereas other organization seems much less deliberate in their aims and actions? Why do some firms count on rules, procedures and standards to achieve control, whereas others rely on individual judgment to guide behavior?(p.1)

Design of appropriate management control system is very essential to the performance of both large and small and medium enterprises (SMEs), but the delicate nature of SMEs in withstanding shock arises from control problems calls for more concerns. Although, problems of coordination and communication may not be as complex as that of large company, Hopper, Koga & Goto (1999) argued that a failure to experiment with new forms of controls may be a factor responsible for high failure rate of SMEs. In line with this argument, Reid & Smith (2002) affirm that efficient information-processing for decisions and a control activity plays an important role in successful smaller and medium enterprises.

The classification of SMEs as a separate category amplifies not only their significance to the economy but also brings out their distinctive characteristics that may require modern management techniques and arrangement such as MCS (Shields & Shelleman, 2016). For SMEs to sustain its relevance as major driver of any economy, a systematic inquiry on how it fair in the use of management controls may not be out of place. It is against this background, this study investigated the relationship between accounting control system, non-accounting control system and performance, given the level of perceived firm's contingencies.

1.1 Statement of the Problems

Performance problems of any organization can be largely attributed to the inability to discern and manage three problems of control inherent in employees that organization relies on to pursue its objectives. These three problems are: lack of direction, motivational problems and personal limitation. Lack of direction implies employee's inability to comprehend what organization expected of him/her. KPMG's survey of 2005 reveals the pervasiveness of this problem among organisations. The survey shows that 55% of the respondents had a lack of understanding of the standards that apply to their jobs. Consequently, organization's goal and employee's goal are at variance.

Motivational problem, the second of the three control problems, concerns the tendency that employees may choose not to perform optimally even with proper understanding of what organization expects of them. KPMG (2005/2006) integrity survey also reveals evidences of prevalent wasting, mismanaging, falsifying, stealing and abusing organization resources in most organization. Finally, personal limitation as a control issue describes the behavioural problem of employee's inability to do good job due to lack of requisite intelligence, training, experience and knowledge for the assigned task.

These problems require different management control techniques beyond accounting controls commonly employed by organization. Absolute reliance on accounting control systems may not be effective for the attainment of the main purpose of control system. Yet SMEs owners or managers seem not to realize this fact. Accounting controls system such as planning, budget, and other financial measures are mostly used as decision support system instead of also linking them to behavioral usage that qualifies them as part of management control system. Other non-accounting control systems such as organizational structure, governance structure, procedures and policies and cultural control in the form of well-defined mission and vision statement, regular meeting, group reward system and socialized recruitment procedures are seemly non-existent or not appropriately used based on contingency factors.

SMEs' choice of management controls system seems to be influencing by pressures from its stakeholders. These pressures have been broadly conceptualized as institutional pressures. Much of the elements of accounting and non-accounting controls system are sometimes in use not

necessarily for control needs but to comply or satisfy regulatory or statutory pressures. SMEs seems also to be engaging in the use of accounting and non-accounting controls system because similar companies are using it. Sometimes, elements of the two control systems are employed to satisfy the dictate of its providers of fund particularly creditors. In effect, the control needs of SMEs are not met, creating problem of misfit between management controls system and internal contingencies (perceived environmental uncertainties, task uncertainty and firm age).

The problem of misfit between management controls system and internal contingencies seems to be pervasive among SMEs. A situation where accounting or non-accounting control system is required given the level of perceived environmental uncertainties, task uncertainty and age of the firm, the companies may not respond to the changes. Once the business is returning profit, SMEs believe the business is within control. Consequently, attendant problems of misfit cut them unaware. King, Clarkson and Wallace (2010) argued that a lesser fit between the MCS and the contingency factors may impair performance. In other word, misfit will be associated with lower performance irrespective of the usage level of MCS.

Low performance problem is a product of inefficiencies that arise from unnecessary expenditure incur on inappropriate MCS design and use. For instance, a firm that is characterized with high perceived environmental uncertainty spending huge resources on budget practice instead of relying on non-accounting control system such as informal communication will definitely experience inefficiencies leading to low performance. Thus, survival problems of SMEs may be partially attributed to inappropriate controls choice.

Evidences on how lack or inappropriate controls system contributed to the business problems are numerous across industries and countries. Merchant and Van der stede (2007) gave revealing consequences of control problems. In 2005, an employee in a large diamond industry collide with customer to perpetrate fraud running into billions of dollars that affected the fortune of the company in US; in 2001, an employee of a stock broking firm in London involved in an errors led to a substantial losses to the firm. In 2002, a former US National Archive employee confessed to the fraud worth of two hundred thousand dollars(\$200,000)he committed and in 2002,two junior staff of the US immigration service were charged with the offence of destroying thousands of documents (Visa application, passports and other papers) to hide their inefficiency.

Cugero-Escofet *et al.*, (2013) acknowledge the fact that much of the recent financial scandals reported across continents have their origin in the inappropriate management control system put in place particularly in relation to incentive system. In Nigeria, similar evidences on business problems as a result of little or no attention paid to management controls practices are obtainable in the literature. For instances; Fatoki (2014) identified internal factors such as lack of staff training and poor use of other control mechanisms as parts of the factors responsible for SMEs problems in Nigeria.

In view of the above, an empirical inquiry on the management control practices of SMEs in relation to their performance is worthwhile given their contributions to Nigerian economy particularly in manufacturing and industrial sectors as revealed by Financial System Strategy (2020) that SMEs represent 90% of the manufacturing and industrial sectors in term of numbers of enterprises. In fact, much of research efforts on management control systems have been devoted to large business organizations e.g. Merchant (1990); Chong & Chong (1997); Moores & Sharman (1998); Durden (2008); Kleine & Wiesenberger, (2013); Verbeeten & Speckle, (2015); Ilias, Zakana & Abdulatif, (2017) and Wald & Gleich, (2018), as only few research evidences on management controls practices of SMEs focus on accounting control system and performance (Davila & Foster, 2005, 2007; King, Clarson & Wallace, 2010).

Better understanding of management control practices is imperative for the development and growth of this critical sub-sector in Nigeria economy. It is against this background that this study attempt to examine the effect of fit between MCS and contingencies factors on performance of SMEs.

1.2 Research Questions

The following research questions were raised to address the research objectives:

- i. How do institutional pressures influence usage level of accounting controls systems in manufacturing SMEs in Lagos State?
- ii. What is degree of institutional pressures' influence on the usage level of non-accounting controls systems in manufacturing SMEs in Lagos State?
- iii. What is nature of relationship between accounting controls system and internal firm contingencies?

- iv. How do internal firm contingencies influence non-accounting controls system in manufacturing SMEs?
- v. How do accounting control systems influence the performance of manufacturing SMEs?
- vi. To what extent do non-accounting control systems affect the performance of Manufacturing SMEs
- vii. How does degree of fit between accounting controls system and internal contingencies influence performance in manufacturing SMEs?
- viii. To what extent does degree of fit between non-accounting controls system and internal contingencies influence performance?

1.3 Research Objectives

The broad objectives of this study is to examine the relationship between management controls system and performance in context of firm contingencies. The specific objectives are to:

- i. establish influence of institutional pressures on usage level of accounting controls systems in manufacturing SMEs in Lagos State;
- ii. determine degree of institutional pressures' influence on the usage level of non-accounting controls systems in manufacturing SMEs in Lagos State;
- iii. ascertain nature of relationship between accounting controls system and internal firm contingencies;
- iv. establish nature of internal firm contingencies' influence non-accounting controls system in manufacturing SMEs;
- v. ascertain the effect of accounting control systems on performance of manufacturing SMEs;
- vi. determine degree of non-accounting control systems' influence on the performance of Manufacturing SMEs;
- vii. determine the extent to which degree of fit between accounting controls system and internal contingencies influence performance in manufacturing SMEs; and
- viii. assess how degree of fit between non-accounting controls system and internal contingencies influence performance.

1.4 Research Hypotheses

The following hypotheses were formulated and tested in this study

H₁: Institutional pressure has no significant influence on the choice of accounting control

System use by Manufacturing SMEs in Lagos State

H_{1a}: There is no significant relationship between the usage levels of accounting controls system and provider of capital pressure in manufacturing SMEs in Lagos State

H_{1b}: There is no significant relationship between the usage levels of accounting control systems and regulatory pressure in manufacturing SMEs in Lagos State

H_{1c}: There is no significant relationship between the usage levels of accounting controls system and association pressure in manufacturing SMEs in Lagos State

H₂: Institutional pressure has no significant influence on the choice of non-accounting control System use by Manufacturing SMEs in Lagos State

H_{2a}: Regulatory pressure has no significant influence on the choice of non-accounting Control System use in Manufacturing SMEs in Lagos State

H_{2b}: Capital provider pressure has no significant influence on the choice of Control System use in Manufacturing SMEs in Lagos State

H_{2c}: Association pressure has no significant influence on the choice of non-accounting controls System use in manufacturing SMEs in Lagos State

H₃: Internal contingencies have no significant influence on the choice of accounting control System use in Manufacturing SMEs in Lagos State

H_{3a}: There is no significant relationship between accounting controls system and perceived environmental uncertainty in manufacturing SMEs in Lagos State

H_{3b}: The relationship between accounting controls system and task uncertainty in manufacturing SMEs is not significant

H_{3c}: The relationship between accounting controls system and firm's age is not significant

H₄: There is no significant relationship between non-accounting controls system and internal contingencies in manufacturing SMEs

H_{4a}: There is no significant relationship between non-accounting controls system and perceived environmental uncertainty in manufacturing SMEs is not significant

H_{4b}: There is no significant relationship between non-accounting controls and task

uncertainty in Manufacturing SMEs.

H_{4c}: The relationship between accounting controls system and firm's age is not Significant

H₅: Accounting control systems does not significantly affect performance of manufacturing SMEs

H_{5a}: Planning is not associated with performance of manufacturing SMEs

H_{5b}: There is no significant relationship between measurement and performance of Manufacturing SMEs

H_{5c}: There is no significant relationship between compensation and performance of manufacturing SMEs

H₆: Non-accounting control systems is not significantly associated with performance of manufacturing SMEs

H_{6a}: Structure is not associated with the performance of manufacturing SMEs

H_{6b}: There is no significant relationship between policies & procedures, and performance of manufacturing SMEs

H_{6c}: There is no significant positive relationship between socio-cultural and performance of manufacturing SMEs

H₇: Performance is not significantly associated with degree of fit between accounting controls system and internal contingencies

H₈: Performance is not significantly affected by the degree of fit between non-accounting controls system and internal contingencies

1.5 Justification for the Study

Previous Studies on a management accounting and control system largely focused on accounting controls element of MCS using large organization as units of analysis. These studies include Merchant (1990); Chong & Chong (1997); Moores & Sharman (1998); Durden (2008); Kleine & Wiesenberger (2013); Verbeeten & Speckle (2015); Ilias, Zakana & Abdulatif (2017) and Wald & Gleich (2018), as only few research evidences on management controls practices of SMEs focus on accounting control system and performance (Davila & Foster, 2005, 2007; King, Clarkson & Wallace, 2010).

Conceptually, the study investigated management control practices beyond formal or accounting control system, which has been the major focus of many research efforts particularly in Nigeria context; it therefore includes administrative and cultural controls as part of control system. As researchers like Chenhall (2007); Anthony and Govindarajan, (2007); Straub and Zecher (2013) and Silva-Domingo(2015) have observed that contingent relationships in MCS research have often been conceptually and operationally misspecified and thus, calls for a more inclusive research approach. By extending the contingency factors beyond organizational and environmental variables to sociological variables like institutional pressures, the study also added value to the management accounting and controls knowledge frontiers.

The contribution to the frontier of knowledge from methodological perspective, premises on the fact that much research on MCS practices focuses on large business organization. To the extent of the literature search, this study seems to be first on the use of broader MCS by SMEs in Nigeria. In addition, the common trend on the choice of statistical techniques in MCS studies is the use of regression analysis which is not all that robust compared to Partial Least Square, Structural Equation model (PLS-SEM) when it comes to unobservable, hard-to-measure latent variables. Thus, predictive accuracy of this multivariate analysis adopted in this study improved the quality of findings in MCS research output.

The findings of this study also provide the business community especially, managers and owners of SMEs with knowledge on how to choose appropriate management control system in the light of existing organization and environmental variables beyond their control. In effect, the agency cost of controls may become minimal and by extension, performance may be improved.

The study also provides information to government and other policy makers that may serve as input in their policy making process or activities relating to how to support or regulate SMEs. In another dimension, provider of capital may also make use of this study's output in evaluating the quality of management process and techniques put in place by the managers of various business organisations in need of fund.

1.5 Scope of the Study

The research focuses on SMEs because few or no research efforts are available on their MCS practices using both congruence and cartesian approach, given their contributions to economic development of emerging economies like Nigeria. Assessment of the manufacturing sub-sector of SMEs is informed by the argument that the sub-sector tends to use more elaborate control practices because of its nature of operation (Lee & Miller,1996). This makes it appropriate for the nature of this study's objectives. It also encompasses a large number of firms wherein considerable representative sample size was drawn to achieve appreciable generalization. Lagos State was chosen because of volume of industrial activities with considerable number of SMMEs.

This study examines the management controls Practices and performance of manufacturing SMEs in Lagos State, Nigeria. It concentrates on management control system as used by managers to ensure that employee pursue firms' objectives. It does not include how management are being controlled which is the concerned of corporate governance issue. The study does not also concern itself with how management use management accounting techniques as decision support system and operational control (internal control, quality control and inventory control) as identified by Belkaou (2002).

1.7 Organisation of the Study

This study was organized into five chapters in order to achieve the stated objectives. Chapter one gave a general outlook on the current state of MCS practices in relation to SMEs in Nigeria. In order to have clear structure on the discussion of MCS practices, statements of the problem, research questions, research objectives, study hypothesis, justification for the study form the content of this chapter.

Chapter two provided a discussion on the key variables of the subject matter for conceptual issues, theories relevant to the study's objectives (theoretical discourse) and previous research efforts(Empirical discourse) with a view to derived hypothesis raised in chapter one.

Chapter three gave the description of the research methodology that was employed in this study. It detailed description of the research design, model specification, population of the study,

determination of the sample size and sampling technique, sources of data, research instrument and method of data analysis and measurement of variables.

Chapter four contains the results of data analysis as well as interpretation of results, while chapter five presents summary that highlight the most significant results of the thesis, conclusion based on the findings as well as recommendations in line with the conclusion reached

CHAPTER TWO

LITERATURE REVIEW

This chapter focuses on the conceptual domain of key variables in the research questions, theories that bear relevance to the underlying relationship between variables as express in the research hypotheses. It also deals with the evaluation of previous research evidences for the purpose of development of hypotheses and gap identification. Theoretical framework upon which all the research questions are hanged is also part of this chapter as well as the conceptual model that visualize relationship among the research variables.

2.1 Conceptual Review

This section focuses on the meanings of the various key variables in the research questions raised in chapter one, purposely to delineate boundary for their operationalization and measurements in chapter three.

2.1.1 Management Control System

Management controls system has been described or defined in the literature from different perspectives. Malmi and Brown (2008) acknowledge the existence of the varieties and descriptions of management controls system (MCS) in term of broadness and narrowness. Chenhall (2003) broadly sees MCS as entailing Management Accounting System (MAS) but also includes other Non-accounting Controls such as action controls and cultural controls. He described MAS as the systematic use of management accounting techniques (such as: budgeting and product costing) to achieve some organization objectives, often used synonymously with Management Control System (MCS). However, the author sees MCS to be broader in scope than MAS. Contemporary MCS focuses on formal, financially quantifiable information to assist manager in making decision and non-financial information empowering individuals to achieve their own ends along with organization goals.

On the other hand, Merchant and Van der Stede (2007) in their narrow conception of management controls, describe it as dealing with employees' behaviour. The authors give assertion relating to this concept as follow: *It is people in the organization who make things*

happen. Management controls are necessary to guard against the possibilities that people will do something the organization does not want them to do or fail to do something they should do.

Abernethy and Chua (1996) use the same argument to define organisation control system as a “*combination of control mechanisms designed and implemented by management to increase the probability that organization actors will behave in ways consistent with objectives of the dominant organization coalition.*”

Malmi *et al.*, (2008) was of the view that the foregoing definitions assume that top managers is seeking to control the behaviour of middle management or employees. In line with distinction between decision-making and control made by Zimmerman (2001), the authors argue that there are accounting system that provides information to support decision-making activities and others that direct or influence employee activities. On this note, only accounting system and other mechanisms exist and use to monitor subordinate managers’ goal congruence and behaviour should be described as control system, while accounting system employ managers to support decision making by their subordinate should be described as decision support system. Thus, Malmi *et al.*, (2008) affirms that those systems, rules, practices, values and other activities management put in place in order to direct employee behavior should be called management controls. They however suggest that Management control system should not be interchangeably used with organization controls system because the latter could include controls that are not only direct employees such quality and inventory controls. Recently, Bedford and Malmi (2015) describe MCS as a set of processes and mechanisms employed by managers to influence the behaviours of individuals and groups towards more or less predetermined objectives. In line with this study’s objective, Malmi and Brown (2008) and Bedford and Malmi (2015) descriptions and definitions of MCS form the operational definition of MCS for this thesis.

2.1.2. Management Control Techniques

There are varieties of techniques used to pursue control functions (Bedford *et al.*, 2015). These mechanisms include but not limited to organization structure, amount of work autonomy and decentralization, standard operating procedures, rule and regulation, performance target (financial and non-financial), emergent target, benchmark, code of conduct, Fixed reward, variable reward, bonus and career perspective in term of promotion. Venkatraman (1989) asserts

that the extensive numbers of control mechanisms create a distinct difficulty for empirical investigation in the field of control configuration. The difficulty exists because of the need to achieve balanced parsimony and exhaustiveness of coverage. However, there are two ways to overcome the obstacle: first, is to analyze a list of controls attributes peculiar to category of firms. This, however according to Bedford *et al.*, (2015), may not be feasible to specify the list of control that may be included in a set. The second approach entails the specification of theoretical categories of control A priori, with the choice of constructs describing broad coverage of those categories. The former approach is commonly described in management controls research as control frameworks and they are being used to explain Management Control System in practice.

2.1.3 Management Controls Frameworks

Efforts of academics towards the development of control frameworks for empirical research began in 1950s and 1960s (Merchant & Otley, 2007). For instance, the efforts Burns and Stalkers (1961) led to the mechanistic and organic frameworks. Since then, management controls as a field of academic research have attracted considerable interests leading to varieties of frameworks, after the publication of Anthony's (1965) seminal works. Complete discussion of these frameworks would be out of place given the scope of this work. The relevant frameworks to this study are briefly discussed in the subsequent paragraphs.

2.1.3.1 Ouchi's Framework for the Analysis of Organizational Controls

Three forms of control have been identified by Ouchi (1979) in an organization, Market (output), Bureaucracies (behaviour) and Clan (social relationship). He gave a practical insight of these mechanisms by observing how management of a part distribution division of a large company ensures that behaviours of employees are oriented towards organizational goals. The market mechanism subject employees to evaluation by assessing his/her contribution and allow to pursue non-organizational goals at a risk of personal loss of reward. This made possible through frictionless price mechanism. Bureaucracy mechanism entails close evaluation of individual employee and enhances feeling of commitment through the use of legitimate authorities in hierarchies. The clan mechanism is used to attain cooperation through selection and socialisation of individuals to the extent that individual objectives coincide with organization objectives. The market control is a form of accounting controls such target in term profit or cost,

while conduct of conduct, administrative manual and organization structure are .good example of bureaucracy. The clan control is used to describe various forms of cultural controls.

2.1.3.2 Simon's Levers of Controls Framework

Management control systems have also been divided by Simons (1995) into four levers. These are: belief systems, boundary systems, diagnostic control systems and interactive control systems. Belief system defines, communicates and executes core values and direction for the organization. They are very general and may operate through devices such as mission statements and overall corporate policies. Boundary system indicates the areas of activity and type of behavior that are considered inappropriate. A large number of compliance systems and quality control typify this type of control. Diagnostic control system, according to Simon, are considered as formal feedback systems that monitor results and correct deviation in comparison to specified standard of performance, such as budget and key performance indicators. Interactive control systems are used by managers to relate and interact with subordinate on a regular and personal level during the decision-making process. It is used to distinguish strategic failure from inadequate strategic implementation. In other words, interactive controls are intended to provide early warning that a given strategy is no longer appropriate and needs revision (Merchant and Otley, 2007). Simon's framework has been described to provide a higher-level analysis of the control context and the significant areas in which strategic control decision need to be taken (Merchant et al, 2007). The framework has however been criticised for being ambiguous. Specifically, there is lack of clarity between diagnostic and interactive systems (collier, 2005).

2.1.3.3 Otley's Controls Framework for Modern Management

Controls framework was also proposed around five main set of issues of modern management and management accounting practices by Otley (1999). The framework seeks to ensure that holistic view of control system is maintained by arguing that there are many alternative control system configurations that may produce good results. The framework is set in five dimensions in the form of five questions addressing management control issues: objectives, strategies, performance target, reward system and information system in term of feedback.

This framework provides a structure for the analysis of companies' control systems because it is formulated to encompasses all types of organizations rather only business organization. In

addition, areas addressed by the framework are clearly stated. However, it does not clearly address the issues of organizations' vision and mission and also overlooks the way accounting and control information is made use of by management. Given the foregoing strength and weakness, Otley and Ferreira (2003) extend this framework to twelve (12) questions which is referred to as performance management and control (PMC) framework. It extends from five 'what' questions to ten 'what' and two 'how' questions detailed as:

- i. What is the vision and mission of the organization and how is this brought to the attention of managers and employees?
- ii. What are the key factors that are believed to be central to the organization's overall future Success and how are they brought to the attention of managers and employees?
- iii. What strategies and plans has the organization adopted and what are the processes and activities that it has decided will be required for it to ensure its success? How are strategies and plans generated and communicated to managers and employees?
- iv. What is the organization structure and what impact does it have on the design and use of the Performance management and control system? How does it influence and how is it influenced by the process of strategy implementation?
- v. What are the organization's key performance measures deriving from its objectives, key success factors, strategies and plans? How does the organization go about assessing and measuring its success in achieving them?
- vi. what level of performance does the organization need to achieve in each of the areas defined in the above question, and how does it go about setting appropriate performance targets for them?
- vii. What processes does the organization use for evaluating individual, group, and organizational performance? How important is formal and informal information and controls on these processes? What are the consequences of the performance evaluation processes used?
- viii. What rewards (both financial and non-financial) will managers and other employees gain by achieving performance targets (or, conversely, what penalties will they suffer by failing to achieve them)?

- ix. What specific feedback and feed-forward information flows has the organization devised for itself? What sort of feedback information flows have been created for monitoring current performance and bringing about adaptation of current behaviour? What type of feed forward information flows (if any) have been formulated to enable the organization to learn from its experience, to generate new ideas and to recreate strategies and plans?
- x. What type of use is made of feedback and feed forward information flows and to the various control mechanisms in place? Is use predominately diagnostic, interactive, or a combination of both?
- xi. How has the performance management and control system changed in light of the change dynamics of the organization and of its environment? What changes have occurred at the level of those systems in anticipation or response to such stimuli?
- xii. How strong and coherent are the links between the components of the performance management and control system (as denoted by the above 11 questions)?

The proponents of the framework argue that the name given to the framework is to reflect a broader perspective of the role of control in the management of organizational performance. It provides a useful guide on the major aspect of control system design that may require to be included in a detail analysis of such system. However, these two frameworks seem to neglect the importance of socio-ideological forms of control (Ditillo, 2004).

2.1.3.4 Merchant & Van der Stedes' object of Controls Framework

A framework based on the objective of control was also developed by Merchant (1985) and Merchant & van der Steeds (2007) which was labeled as object-of- of control. Within the framework, controls are typified as: results, actions, personnel and cultural controls.

They described results controls as preventive-type capable of providing solution to various control problems (lack of direction, motivational problem and personal limitation). Results control intimate employee as to what is expected of them. It motivate employee to pursue organization objective that could lead to desired outcomes. They advanced the following reasons as the strength of results control in addressing motivational problems: encouragement of meritocracies, empowered employee to take rightful action, it encourage employee to discover and develop their talents. However, the scholars stressed the exceptions that results control may not be effective in every situation. And that failure to meet three conditions: Knowledge of the

desired results, ability to affect the desired results and ability to measure controllable results effectively-will render result control ineffective. It was further argued that the implementation of results controls entail four steps: clear definition and description of the dimension of the desired results (such as: profitability and customer satisfaction), performance measurement, target setting and reward.

Action control is described to entail steps that ensure that employee act in the organization's best interest through the use of their action as the focus of control. It is acknowledged by the authors as the most direct form of control. Accordingly, it can be described in four basic forms: behavioural constraints, reaction review, action accountability and redundancy. Behavioural constraint prevent employee from doing what they should not do. Pre-action review concern the process of review of employee plan of action before implementation (planning and budgeting process is a typical example). Action accountability involves manager to define what action are acceptable or unacceptable, communicate those definitions to employee, observe what happens and reward good action or punish action that deviate from the acceptable. The desired action can be implemented both socially and administratively. Administrative medium may include: the use of work rules, policies, and procedures and code of conduct. Redundancy involves the allocation or assignment of more employee to a task than is strictly necessary. The essence of this form of control is that it increases the probability that a task will be satisfactorily achieved.

Similar to results control, action control solves or addresses one or more of the control problems. It can also be effectively used, if the two conditions (knowledge of desired outcomes and ability to ensure that desired results actions are taken) put forward by Merchant *et al.*, (2007) are met.

Personnel control relies on employees' self-control or self-motivation. It functions by enhancing clarification of expectation, encourage employee to do good job and promote employees desired to be self-monitoring. This form of control can be implemented by any of the three methods :(i) selection and placement of employee, (ii) Training and (iii) job design and provision of necessary resources.

Cultural control is basically devised to encourage mutual monitoring and it is a powerful form of group pressure on individual employee to align with group norms and values. It is described to be effective where member of a group have emotional ties to one another. As cultural control

prevalent in some collectivist culture, so also is useful in a single organization. Shared values, norms, belief, ideologies, attitude and way of behaving are the foundational structure of any culture (either within the society or single organisation). These basics may be in written or unwritten in an organization. Managers do attempt to influence business culture in many forms (such as code of conduct and group reward).

Although, there are other stream of control frameworks such as (Langfield-smith, 2007; Alverson and Karreman (2004); Brickley, Smith and Zimmerman (2004); Fisher (1995) delineating the core dimensions of control to draw upon, comprehensive review of these frameworks by Malmi & Brown (2008) provides a more broad conceptualization management controls System. The authors came up with a framework referred to as Management Controls System Package which center around five structures: planning controls, cybernetic controls, reward and compensation controls, administrative controls and cultural controls. They argue that the power of the framework comes from the broad scope of controls in the package. Each component of the package is described briefly in **Table 2.1**

Table 2.1: Description of MCS Package

Elements	Description	Component
Planning	Ex-ante form of control (Flamholtz <i>et al.</i> , 1985); first it sets out the goals of the functional areas of the organization thereby directing effort and behavior; second, it provides the standards to be achieved in relation to the goal, making clear the level of effort and behavior expected; third, it enables congruence by aligning goals across the functional areas of an organisation, thereby controlling the activities of groups and individuals.	Action planning—goals and actions for the immediate future, usually a 12-month period, are established; has a tactical focus. Long-range planning—the goals and actions for the medium and long run are established; has a more strategic focus
Cybernetic	There are five characteristics of cybernetic control (Green and Welsh, 1988). First, there are measures that enable quantification of an underlying phenomenon, activity or system. Second, there are standards of performance or targets to be met. Third, there is a feedback process that enables comparison of the outcome of the activities with the standard. This variance analysis arising from the feedback is the fourth aspect of cybernetic control systems. Fifth is the ability to modify the system's behaviour or underlying activities.	<i>Budgets</i> (Bunce <i>et al.</i> , 1995; Hansen <i>et al.</i> , 2003), <i>Financial measures</i> (Ittner and Larcker, 1998), <i>Non-financial measures</i> (Ittner and Larcker, 1998), <i>Hybrids</i> that contain both financial and non-financial measures such as the Balanced Scorecard (BSC) (Greenwood, 1981; Kondrasuk, 1981; Ittner and Larcker, 1998; Kaplan and Norton, 1992, 1996a,b, 2001a,b; Malina and Selto, 2001)
Reward/Compensation	Motivating and increasing the performance of individuals and groups through attaching rewards to control effort direction, effort duration, and effort intensity.	Attaching rewards and/or compensation to achievement of goals (Flamholtz <i>et al.</i> , 1985; Bonner and Sprinkle, 2002)

Administrative	Administrative control systems are those that direct employee behaviour through the organizing of individuals (organization design and structure), the monitoring of behaviour and who employees are made accountable to for their behaviour (governance); and through the process of specifying how tasks or behaviours are to be performed or not performed (policies and procedures), (Simons, 1987).	<i>Organizational design and structure</i> (Otley and Berry, 1980; Emmanuel et al., 1990; Abernethy and Chua, 1996; Alvesson and Karreman, 2004), <i>Governance structures</i> within the firm (Abernethy and Chua, 1996), <i>Procedures and policies</i> (Macintosh and Daft, 1987; Simons, 1987)
Culture	The values, beliefs and social norms which are established influence employees behaviour. (Birnberg and Snodgrass, 1988; Dent, 1991; Pratt and Beaulieu, 1992).	<i>Value-based controls</i> (Simons, 1995), <i>Clan controls</i> (Ouchi, 1979), <i>Symbols</i> (Schein, 1997)

Source: Malmi and Brown (2008) Management Control System Package

Planning Controls has to do with the goal setting of the organization functional units. It specifies standard to be attained in relation to the set goals and also bring clearly the expected efforts and behavior of organization members. It can be used as a control device in two ways: action planning and long-range planning. The authors stress the use of planning beyond finance, to the extent that it can be used effectively to influence what people do.

In order to generate conceptual domain of Planning as a control device, Bedford and Malmi (2015) argue that goal-congruence is attained when planning is openly used to predetermine activities behavior necessary to actualize desire objective. They also affirm the coordinating role of planning to entail articulating and communicating goals and schedules to organization members involved in particular activities across an organisation. Organisations engage in planning activities in different forms and these have been discussed and conceptualized in the literature on a scale ranging from formalized and systematic to informal and emergent (see: Brews and Hunt, 1999; Mintzberg, 1994).

Cybernetic Controls is an information system or control system depending on how it is used in a business setting. Its usage as a control device requires all the concerned to be involved at all stages of initiation and implementation. The potency to connect behaviour to target and ensure that individual is accountable for variation in performance make cybernetic system an element of MCS. They identify budgets, financial measures, non-financial measures and hybrids (e.g. balanced scorecard) as four basic cybernetic systems. Budget, as a cybernetic system, ensure the establishment of acceptable levels of behaviors and evaluate performance against those plans. Financial performance measures use as control systems techniques include but not limited to: return on investment and economic value added (EVA). Non-financial measure are being used to overcome the limitation inherent in financial measures. Hybrid measures like balanced scorecard are now gaining prominent as a control instrument.

Reward/Compensation control use to motivate and enhance individual and group performance. It can be of extrinsic and intrinsic form. Organization provides reward to retain employee and encourage cultural control through group reward. Flamholtz, Das and Tsui (1985) acknowledged that compensation is both ex-ante and ex-post control device. Bedford *et al.*, (2015) are of the opinion that ex-ante compensation encourages goal congruent behavior through the belief to receive reward for task performance while ex-post compensation function as control mechanism by rewarding results and serving as sub-set of the feedback process through the provision of information on the effects of past behavior. Many issues on compensation come from the attributes relating to extent of performance-based compensation in use, the method of determination and time horizon and these have contributed varying methods across firms.

Administrative Controls is described by Malmi *et al.* (2008) as *directing employee behavior through the organizing of individuals and group, the monitoring of behavior and who you make employee accountable to for their behavior, and the process of specifying how tasks or behavior are to be performed or not performed* (p.293). This implies that administrative controls is a direct control of employee actions. The controls may be made operational through organization design and structure, governance structure within the firm and procedures and policies. Management may manipulate organization structure to influence behaviour, governance structure that has to do with board structure and composition, and management team can also be used to influence behavior in many ways. Malmi *et al.* (ibid) cite example of meetings and meetings

schedule and deadlines which influence behaviour as one of the uses of governance structure to affect behaviours. Policies and Procedure is used to specify process and behaviour of employees.

Cultural controls are ascribed as control techniques when it used to influence or regulate employee behaviors. Three aspects of cultural controls within this framework are: Value-based control, symbol-based control and clan control. Value-based control is a form of belief system used by manager to achieve direction. Mission and vision statements are good example of value-based control. Symbol-based involves the use of dress code and work place design. Clan control concerns with the subculture and individuals group relations.

The reviewed frameworks bear relevance to the MCS research particularly those that explicitly recognize and integrate cultural relation in an organization as form of controls. But this thesis adopted Malmi and Brown's (2008) controls framework as revised and used by Bedford and Malmi (2015) because of its broadness. In addition, the framework seems to capture management control practices of both small-medium enterprises and large companies. In this study, the framework is broadly classified to accounting and non-accounting controls system. Accounting controls system are: planning, cybernetic and reward/compensation, while non-accounting controls system consists structure, policies & procedures and cultural controls.

2.1.4 Firm contingencies or Contingency factors

The relevance of context or contingency to accounting practice has been echoing in the literature in the last couple of decades. Hopwood (1983), Hopwood and Miller (1994) and Chapman, Cooper and Miller (2009) acknowledge the relationship between Management Accounting and Controls Practice and broader organizational and institutional environment in which it is situated. Because of its relevance in understanding why MAC or MCS are practiced and how it influence behaviour, the term context has been conceptualised as those contingent variables that are outside the direct control of the organization (Otley, 1980). Donaldson (2001) also sees contingency as intra and extra organizational factors. He names three specific contingency factors: task uncertainty, task interdependence and organization size. Bedford (2015) refers to context as those variables that being described as external to the management control package. Chenhall's (2003) comprehensive review of the contingency-based MCS studies identify primary contingency factors to entail: external environment, technology, organization structure, size, strategy and culture. Messner (2015) exploits the ideas of Otley (1978); Hirst (1981); Ezzamel

(1990) and Gedin and Greve (2008) to describe contingency as a set of variables or factors that determine whether a particular accounting or control system is more or less appropriate for an organization.

However, Chenhall reiterates the need to expand contingency into the area of ethnics, fairness and organization justice as well as individual characteristics such as personality and cognitive style. Also mentioned are institutional contingencies such as associations, regulation and fund sources or resources dependence. The expansion of contingency factors in MCS research, in the view of Chenhall, would go a long way to address the criticism that contingency-based studies have relied and used only traditionally and functional theory instead of integrating sociological perspective in the stream of MCS research agenda.

The contingency theories, management controls and strategic management literature laid more emphasis on: size and structure and environment uncertainty as contingency factors (Dobák, 2006; Dobák-Antal, 2010). Recently, managerial characteristics and institutional factors have also been considered in accounting literatures as contingency factors. But in this study, the contingency or contextual factors considered are: perceived *environmental* uncertainty, task uncertainty and firm age. These three internal contingencies have described in Chenhall's (2003) review of the MCS literatures since 1980 as "the descriptors of the fundamental generic element of context". Institutional pressures are also included in response to the need to study management control practices beyond rationality perspective. These pressures include: Industry practice, regulation and funding sources. These contexts are briefly discussed below.

2.1.4.1 Perceived Environment Uncertainty

Perceived environmental uncertainty (PEU) is defined as a situation where managers perceived element of the environment to be uncertain (Chenhall, 2003). King, Clarkson and Wallace (2010) affirm the importance of PEU as contingencies factor in the design of MCS by arguing that increase in PEU makes managerial planning and control more difficult. King *et al.*, (2010) acknowledge the broadness of PEU as general terms, and that a number of researchers have offered more specific classification of the PEU. Bedford and Malmi (2015) defined PEU in term of unpredictability, turbulence, complexity and hostility. Specifically, unpredictability is defined as inability to anticipate variation among elements of environment and assess the effect of material change on the organization; turbulence implies rate of change and instability in the

environment; complexity connotes range and diversity of environmental factors relevant to the firm operations and hostility is seen as degree of threat from competitors for market demand, necessary resources and opportunity for growth. This thesis adopts these dimension of PEU for its operationlisation.

2.1.4.2 Task Uncertainty

Bedford and Malmi (2015) define task uncertainty (TU) on the notion of measurability of outcome and programmability of task. Outcome measurability entails the extent to which output of employee or subordinate efforts or activities can be reliably quantified while task programmability indicates the extent to which subordinate action required to achieve an objectives are known and visible to top management. This study operationalizes TU in line with this definition.

2.1.4.3 Firm age

For the purpose of this study, age is defined in term of number of years an SME has been in existence as manufacturing business. This conceptualization is in line with previous studies like: Davila and Foster (2005) and Bedford and Malmi (2015).

2.1.4.4 Institutional Pressures

The assumption behind most new institutional sociology (NIS) studies is that intra organization structure and procedure including accounting and control practices are largely shaped by external factors called institutions. In other word, choice of organization structure and practice are mostly informed by these institutions rather than cost minimization objective. Scott (1995, p. 33) defines institution as “consisting of cognitive, normative and regulative structures and activities that provide stability and meaning to social behaviors”. He maintains that “institutions are transported by various factors such as culture, structure and routine and they operate at multiple level of jurisdiction”

DiMaggio and Powell (1991) argue that institution emanates from the activities of human and does affect human activities. They however submit that institutions do not come from deliberate human design. DiMaggio et al. (1983) assert that isomorphism is a term used to describe the

alignment between organization arrangement (management and accounting control systems inclusive) and institution which explain through a process by which external institution permeates internal structure and procedure. Although two forms of isomorphism are generally discussed in the literature- competitive isomorphism and institutional isomorphism. NIS stresses on the latter which is further classified into sub-categories : (1) coercive isomorphism described the situation where institutional factors or pressure such as government policies, regulation, and supply relationship exert force on the organization to adopt specific internal structure and procedure. (2) Mimetic isomorphism concern the situation where by organization emulates internal structure and procedures adopted by other organizations. (3) Normative isomorphism gave insight to the situation whereby organization adopted the structure and procedure advocated by particular dominant profession, profession bodies and consultant.

Given the foregoing insight on the concept of institution, this thesis operationalized and defined institutional pressure from the perspective of regulatory pressure, capital provider pressure, professional and Association/Bodies pressure.

2.1.5 Contingency Fit Approaches

Duncan and Moores (1989) define *fit* as alignment of an organization's characteristics, mechanisms or practices to its contingencies. In relation to management control system or practices, an organization can be said to attain fit when there is a match between MCS in use and organization contingencies. Covalleski (2003) describes "fit" as a state of equilibrium in the relationship between the contingencies factors and the type of MCS. In line with this definition, King *et al.*(2010), argue that "fit" occurs when the organization designs its management controls practice in such a way that it has positive impact on performance relative to alternative practices. Thus, when there is lesser "fit" between MCS element and firm contingencies, performance may be affected or impaired.

Drazin and Van De Ven (1985) affirm the existence of the three conceptual approaches to Fit. These are: selection, interaction, and system. The three approaches are summarily described in the **table 2.1.5** below:

Fit	Definition/Implication	Related statistical test(s) or Procedures
Selection	Fit is achieved when there is Congruence between contingent variables and control system/mechanism	<ul style="list-style-type: none"> • Correlational Analysis • Significance of regression coefficient
Interaction	Fit may confirmed by the effect of bivariate interaction of contingent variable and control system/mechanism on dependent variable such as performance	Moderated regression analysis-significance of the interaction term(s) coefficient.
Systems	This involves a more holistic concept of fit where multiple contingencies,several control systems are simultaneously modeled on several outcome variables	Profile Deviation Analysis Euclidian distance Cluster Analysis

Source: Soobaroyen (2007)

Building on Drazin *et al.* (1985), Gerdin and Greve (2004) classify and describe different form of contingency fits from the perspective of strategy-MAS/MCS research. This classification is more relevant to the broader MCS (Soobaroyen, 2007).In the first classification, the authors differentiate Cartesian approach to fit from configuration approach. Cartesian approach which is similar to interaction model of Drazin *et al.*, (1985) concerns with how pairs of context-structure affect performance, while configuration approach takes holistic view and evaluate the existence of fit by analyzing many contextual variables and control mechanisms simultaneously. With this approach, fit is assumed when different management control mechanisms are effective for different organization contexts/contingencies. The configuration approach is also similar to system approach of Drazin *et al.*, (1985). Gerdin *et al.*,(2004) further classify cartesian approach into congruence and contingency. Congruence approach to “fit” argue that only the best performing organization as a consequence of fit between MCS elements and contingencies survives. Therefore, research should only examine context-MCS only with no any concern about performance. This premise has however been criticized as being too crude of not include performance in the model (Gerdin *et al.*, 2004). Contingency approach to fit on the other hand

assumes that fit is understood on the basis that positive- performance impact is a result of certain combination of contingencies and MCS. In other word, high-performing and low-performing firms exist in relation to degree of fit between MCS and Firm contingencies.

In reference to the study's objectives, congruence and contingency approaches of Cartesian were adopted and this is reflected in the research questions 1, 2,3,4,5 and 6. Specifically, research question one, two, three and four are based on congruence approach while research questions five and six is in line with contingency approach. The appropriate statistical technique for each approach will be discussed in chapter three.

2.1.6 Meaning and Characteristics of SMEs

In all economies, particularly developing nations, there is a common consensus among stakeholders that SMEs are effective catalyst for overall economy development (Morenikeji & Chukwu 2012). Iorun (2014) identifies sole proprietorship, family business, partnership and by extension corporate or incorporated business as form of SMEs. However, in-spite of its laudable roles in economy development agenda, its meaning defiles a common ground. Ekpoyong and Nyong (1992) affirm that there is hardly unique universally accepted definition of SME. Lawal (2002) is of the view that definition of SMEs change overtime as consequence of changes in price level, advance in technology and other considerations. In his view, Egbuogu (2013) argues that definition of SME varies between countries and continents. For instance, countries like USA, Britain and Canada define and categorize SMEs in term of annual turnover and annual paid employees. Iorun (2014) says that, in Britain SME is defined as that business with annual turnover of Two Million pounds or less or with no fewer than 200 paid employees. While in Africa continent, a country like Ghana categorizes firm with less than 10 employees as small enterprise, firm with number of employee above 10 are described as medium enterprise. There is also a consensus in the literature that Nigeria's definition of SME is divergent (see Akabueze , 2002; Udechukwu, 2002 & Sanusi, 2004).

Notwithstanding these divergent views, the Nigeria Central Bank shares the view of Small and Medium and Equity Investment Scheme (SMEIS) on the definition of SME. Indeed SMEIS defines SME as a business with asset based of not less than 200,000,000 excluding working capital and number of employees not less than 10 and not more than 300. The Nigerian use of

asset values and labour size parameters as bases for the classification of SMEs is to some extent in tune with international best practice. In this regard, Fjose, Grunfield and Green (2010) define and classify SMEs in term of number of employees. They categorize firm with labour size varying between 1-9 employees as macro firm while those number of employee ranging between 10-50 as small firms, Medium sized enterprise to be a firm with labour size between 50-250 employees.

Similarly, the USA business administration (SBA) used the numerical threshold of employee as a basis of categorizing SMEs. SBA defines SMEs as an independently operated business with no fewer than 500 employees (Cfed, 2002). Ajose (2010) sees SME as an enterprise that has asset based, excluding land, between 5m to 500m with number of employees ranging from 11-300. In line with SMEDAN policy of 2007 on micro, small and medium enterprise, SME is similarly classified on the basis of asset value and number of employees. Accordingly micro enterprise is described as any business with total asset of less than 5million and number of employees ranging from 11-49. The SMEDAN policy recognized a firm or enterprise with employees range from 50-200 with total asset value not exceeding N500m but greater than N50m as a medium enterprise. The common trend in the above discourse is that SME is largely defined and categorized on the basis of asset base and number of employees. Therefore to maintain consistency on these common bases and in accordance with the study objective that focuses on how MCS are being used to influence employee behavior, SME is operationalized using SMEDAN's policy on SMEs definition.

Hutzschenreuter (2009) describes the characteristics of SMEs in term of its liabilities in relation to management control. He identified three liabilities of SME as: liability of smallest, liability of informality and liability of owner -manager dominant. Accordingly, the flat organization structure commonly operated by SMEs is a reflection of liability of smallest. This results to lower number of layer in the organization structure. Liability of smallest also create problem of human resources. In this respect, Granlund and Tapaleenmater (2005) assert that SMEs face inadequate resource regarding the accounting function. Perez-sanchez (2003) argues that the degree of functional specialization among the employees of SMEs is rather small. Accordingly SME staff is require to cover rather broad functional areas, thus the limited resource in term of

staff and management experts cast doubt on the existent of sophisticated control process. Agwu and Emeti (2014) also confirms on the limited management resources as SME problem.

With respect to the liability of informality, SME is also characterised with absent of formal structure, low level of standardization and absent of standardization process (Ghobadian *et al.*, 1996). Consequently, there exists a short decision making chain (Pichler,1997). Increased cost of communication is also identified as a consequence of informality. Davila and Foster (2005) however maintain that the implementation of formal procedure or management accounting system is a devise to reduce communication system in SMEs. In all the liability of informality therefore may restrict the existent to which the management controls are put into practice. Lastly, liability of ownership and management has been affirmed by Kazanijan (1998); Schefezyk & Pankotsch (2002). These characteristics, according to Chandler and Harts (1994) inform a strong interconnection between success of an organization and the characteristics of owner-manager. Pichler (1997) echoes the consequence of owner- manager dominant as small management team with low level of experts. In relation to management controls, the problem of owner-manager dominance is more reflected on the limited time for control activities as much of managerial activities are concentrated on one person.

2.1.7 Firm Performance

The consequence of MCS in an organization have been identified to include perceive individual job satisfaction, job stress and improved organization performance (Hutzschereuter, 2009). In line with this idea, Chenhall (2003) has earlier suggested that the outcome variable of management control system should be in the dimension of managerial or organization performance. The choice of organization performance as outcome variable in this study is informed by an assumption that system affects the behaviour of individual within the organization which then facilitates the organization goal (Otley, 1980). He also asserts that it is very important to assess the impact of accounting system and control in aiding organization performance in order to make step beyond a mere testing of association of particular contingency and accounting control system.

Venkatraman and Ramanejarm (1986) see business performance as a component or sub-part of organization effectiveness. Based on this perspective, three domains of performance are

identified: Financial performance, financial & operational performance and organizational effectiveness. Out of the three domains, according to Venkatraman *et al.*, (1986), financial performance is the narrowest in scope. It centers on the use of indicators such as sales growth, profitability reflected on return on sales and return on equity. Gosh (1996) is of opinion that the use of quantitative method to operationalise performance entails the indicators such as net profit, share price, dividend rate, growth in sales volume and efficient product cost.

The second domain: both financial and non-financial performance -involves the use of market share, product quality, marketing effectiveness and manufacturing value added as indicator of non-financial or operational aspect of the domain. This aspect implies that operational success factor might lead to financial performance. The third domain, according to Venkatraman *et al.*, (1986) relate to the integration of the influence of multiple stakeholders within the first and second domains thus; using organizational effectiveness as a measure for organization performance is objective-specific.

The second domain of business performance is most widely used in the field of contingency-based MCS research. Indeed, the most widely adopted, Gupta and Govindarajar (1984) measure of performance exemplify this approach. In addition, Brettel's *et al.*, (2005) subjective company performance Construct and Miller (2008) performance construct also falls within the second domain of organizational performance. Using the second domain, data on organization performance can be obtained through the use of survey instrument (Venkatraman *et al.* 1986).

For the purpose of this study, Organization performance is defined in the form of growth in sales volume net profit, market shares, and effectiveness of MCS in term of guiding, coordinating, monitoring, motivating employees and evaluating employees' performance as perceived by SMEs managers.

2.2 Theoretical Review

The general objective of this thesis is to offer a comprehensive understanding on how management controls are being used or executed among SMEs managers to monitor and influence employees' behaviours in order to achieve goal congruence. Thus; theories relating to behavioral aspects of controls are deemed relevant for discourse as a basis for this study's theoretical framework. These theories are: Agency Theory, Social Control Theory, Contingency Theory and Institutional theory .

2.2.1 Agency Theory

Agency Theory (AT) fundamentally expands risk-sharing problems among individuals or groups by including the problem that exists when co-operating parties pursuing different goals (Jensen & Meckling, 1976). AT gives insight into the problem that might result from separation of decision making and implementation, and how such problem may be resolved (Hutzschenreuter, 2009). AT offers a reach theoretical premise for understanding organization process and design from principal-agent perspective (Subramanian, 2006). Accordingly, Jensen and Meckling (1976) gave a description of principal- agent relationship as an engagement or a contract where single individual or more, refer to Principal, engage another individual refer to Agent to carry out some services on their behalf which entail delegation of decision authority to the Agent. Relating to the objective of this study, the principal is the manager while the subordinate or employee is the agent.

The main goal of agency theory is to offer an explanation about how the relationship between the principal and agent can be designed optimally by offering fundamental assumptions about the parties involved and the organization (Eisenhardt, 1989). An overview of theory and its assumptions are provided in the table below:

Table 2.2.1: Agency Theory Overview

Key idea	Principal agent relationship should reflect efficient organization of information and risk-bearing cost
Unit of Analysis	Contract between Principal and agent
Human assumptions	Self-interest Bounded rationality Risk aversion
Organizational Assumptions	Partial goal conflict among participants Efficiency as the effectiveness criterion Information asymmetry between principal and agent
Information assumption	Information as a purchasable commodity
Contracting Problems	Agency (moral hazard and adverse selection) Risk sharing
Problem domain	Relationship in which the principal and agent have partially differing goals and risk preference

Source: Eisenhardt (1989)

Indeed, Subramanian (2006) affirms that “the efficiency of the principal-agent relationship is affected by individualistic and opportunistic behavior held by each party, and that the decision is exacerbated by incomplete information and uncertainty. The consequence of these assumptions has been described as “agency problem” (Jensen & Meckling 1976). Two specific types of agency problem have been identified in the literatures. These are: Adverse selection and Moral hazard. Gobel (2006) describes adverse selection as the problem of not being able to observe agent attributes prior to contracting. In this situation, the principal is unable to determine the capability, the competence and effort that the agent may possess. Subramanian (2006) gives an instance where agent taste or job itself is so highly complex that the principal is not able to verify agent attribute at the point of hiring.

Macintosh (1994) highlights numbers of suggested solutions to the adverse selection aspect of agency problem. These include: signaling, screening, self-selection and incentive system. All these may be described as form of management controls use in business settings. Regarding the moral hazard aspect of agency problem, it's a situation described by Jensen and Meckling (1976) as inability of the principal to observe or monitor the performance of agent directly and that the principal can only assess subordinates or agent's performance based on outcome. As a consequence, the agent pursues his opportunistic behavior different from principal main goal. Two methods have also been suggested in the literatures to cope with moral hazard problem: monitoring agent activities by personal contact or information system and incentive system. Potential monitoring device according to Jensen and Meckling (1976) includes management accounting and control system. While incentive system entails the alignment of employee interest with the principal through the use of specific contract clause in form of bonus and reward structure.

The associated cost with strategies of mitigating agency problem has been described as agency cost (Subramanian, 2006). These costs include monitoring cost, bonding and residual cost. Monitoring costs include external and internal audit costs, investment in governance structures , formal procedures, information system and other oversight process (these are elements management control system), while bonding costs are related expenditure that aim at align agent interest with principal e.g. bonus incentive. The residual costs are all other costs incurred as consequence of lack of congruence between the principal and the agent.

Despite the existence of monitoring and bonding strategies, Jensen and Meckling (1976) argue the existence of trade off relation between the monitoring and bonding cost such that an increase in monitoring activities or cost enhance principal ability to observe and arrest any opportunistic behavior on the part of agent, thereby reduce the need to incur more bonding costs. The key idea and of course prediction of the theory as depicted in table 2.2.1 is that a decrease in agency cost i.e. residual cost is favourable and this result in an improved organization performance.

Despite the relevance of the theory as a complementary organization theory, Hamsh (2006); Baiman (1990) and Macintosh (1994) identify two relevant dimensions of its criticism: endogenous and exogenous criticisms (both relating to methodological issues and fundamental validity respectively). According to these authors, endogenous criticism entails the followings:

- i. The theory attributed opportunity behaviour to agent only, neglecting the fact that the principal may also be involved in this kind of behaviour after the contract has been sealed. However, Agruwarawal (2002) in response to this criticism has introduced the concept of double moral hazard in their researches.
- ii. The theory assumed the existence of one principal and one agent in a contractual relationship but organization in reality has to cope with multiple agents. This issue has also been addressed through adoption of multiple agent model (Kienser, 2002). Indeed, Hutzschenreuter (2009) addresses this issue through the incorporation of social control theory in his work.
- iii. The agency is concern with individual negotiated contract and failed to look at externally imposed contract such as regulatory impact of government.

In relation to exogenous criticism, issues raised are: that the possibility of lack of respective skill is not covered by the fundamental assumption of the theory since it only dwell on willingness or shirking as only cause of dysfunctional behavior on the part of agent (Miller, 1995). Furthermore, Merhovel (1999) observes that the theory focuses on contractual disadvantage in the form of agency cost, ignoring or neglecting the benefit of the contractual relationship. Despite of all these criticisms, many empirical studies in accounting research such as Seow (1999), Dutta and Reicheistam (2003), Badenius and Melumao (2002) have adopted the prediction of the theory in the discussion their findings.

2.2.2 Social Control Theory

Hopwood (1976) raises an argument on the limitation of administrative and accounting control device as control mechanism of human behavior. This argument may be attributed to the existence of social relationship in a group. In effect, the mechanisms resulting from social relationship are the elements of social control theory (Hutzschenreuter 2009). O'Reilly (1989) asserts that shared pattern of believe and expectation in the group accounts for the development of norms that shaped the behaviour of individual and group is the basis of social control process. Turk (1981) is of the view that the effect of social control process tends to influence individual by ensuring his/her behavior are to conform to the group. Hopwood (1976) also argues that group may exert pressure to the extent that individual member acts in accordance with the group shared value. Social control theory is based on key assumption: i. there exists in a work place,

the necessity of social acceptance and human recognition (ii). Individual member of the group in organization is expected to drop certain part of his/her norm or values. The first postulate implies that individuals or employees do behave in the sense of social man not as the homo-economicus as argued in the agency theory (Steinmann & Scheeyogg, 2005). The second assumption gives insight into the fact that social control affects person behavior where there is an existence of shared value -cultural and organic control mechanism in this aspect- (Hutzschenreuter,2009).

Based on the foregoing assumption, the main idea of social control is that through the social regulatory effect (cultural control), individual can adjust his personal value and believe, learn, adopt and internalized the group value and in effect identifying himself with the group value (corporate culture). Therefore, the prediction is that individual conformity with shared value (organization culture) is expected to improve motivation and indirectly impact on outcome or performance.

2.2.3 Contingency Theory

The inception date of the term “contingency theory” is not known as claimed by Donaldson (2001). But Budapest (2012) affirms that the term is first mentioned in the literature by Lawrence and Lursh (1967). The theory is a response to the stand of Tailor, Frayol and Webber’s disposition to the universally applicable organization management principles or techniques Budapest (2012). The theory mainly assumes that a general strategy, structure, management practice (management control system inclusive) applicable to all organization does not exist. It is therefore suggests that according to Ezzemel and Hart (1987) “the best way to organize is contingency-specific to circumstance that the organization find itself”. In similar view, Baranyi (2011) is of the opinion that the theory assumes different circumstances required different organization arrangements. Dobak and Antal (2010) argue that the contingency theory is expected to explain the differences between organization arrangements and practices. Soobaroyen (2007) affirms its prediction of an interaction between management control system, contingency variables and organization performance. This is in line with Hlay’s (1980) argument that organization performance is achievable if there is “fit or match” between control mechanism and control factors that affecting particular organization.

Contingency theory has also received knocks from the exogenous and endogenous perspectives. Accordingly, Hopper and Powel (1985) criticised that the theory portrays management practice in technical role and disregard other discretion process by the decision makers and how value, believe and ideology influence choice. Dobak (2006) also identifies imperfection of the theory to be too mechanical by ignoring the possible choice opportunity of the organization. Budapest (2012) however, affirms the deterministic viewpoint of the theory by allowing for the change in the contingency factors. Earlier, Meyer and Rowan (1977) argue that the existence and interaction of organization form and procedures may also informed by political and symbolic reasons. Chenhall (2003, p.157) also is of opinion that “there is no single contingency theory but a variety of theories that seek to explain the condition”.

Notwithstanding the above criticism, contingency theory has well been adopted in many empirical works of Clarkson, King & Wallace (2016); Dropulic (2013) and Bedford & Malmi (2016).

2.2.4 Institutional Theory

There is various institutional theories ranging from old institutional economy, new institutional economy to new institutional sociology (NIS), but this study focuses on new institutional sociology because its prediction and assumption bears relevance to this study.

Institutional theory emerged, according to Moll, Burns and Major (2006) out of opposition towards the dominant rational actor perspective. Earlier argument of Meyer *et al.*, (1977) on the choice of organization being informed by political or symbolic reasons aligns with this assertion. Moll *et al.*, (2006) affirm the existence of numerous institutional approaches with a branch area of organization study relevant to accounting research. As earlier defined in sub-section 2.1, institutions comprise of cognitive, normative and regulative structure, an activity that enables stability and meaning to social behaviour. The careers of institutions are culture, structure and routine (Scott, 1995).

The basic assumption of NIS theory is that intra organization structure and procedures including accounting, are largely shaped by external factor (institutional rather than cost minimizing objective). Thus, organization which operate in a similar environment settings are assume to be

subject to comparable demand towards what is generally deemed appropriate behavior including its choice and design of internal structure and procedure (Moll *et al.*, 2006).

Scott and Meyer have earlier explained the insight of new institutional sociology to contend with the fact that organization environments are featured with extensive rules and requirements to which each individual organization must conform with for them to enjoy support and legitimacy. Thus, organization performance and of course survival is much related to both technical efficiency and institutional legitimacy (Sooboroyen, 2007). This conformity, according to Deephouse (1996), is achieved through isomorphism (the term as earlier described in section 2.1).

Moll *et al.*, reveal that the recent criticisms of NIS stem from being too micro-focus and thus required greater integration with macro explanation. Collier (2001); Modell (2006); Burn (2010) are influential efforts to close the macro/micro gap. The theory enjoys prominence as it has been applied in Accounting Discipline such as Hussain & Hoque (2002); Modell (2003); Burn & Scapen (2000).

2.3 Empirical Studies

This section reviews previous research evidences on the usage level of accounting and non-accounting controls system and their impact on performance.

2.3.1 Usage Level of Accounting Control System and Performance

2.3.1.1 Studies on Developed Countries

Research efforts on MCS have been carried out on individual element of Accounting Controls System such as budgeting, Economic Value Added and Hybrid performance measurements such as Balanced Scorecard and their relationship with organization performance. Previous studies in developed countries are much available in the literatures.

In relation to budgeting, Hopwood (1972) works on the use of budget in evaluating performance perhaps encourages research on budget use as a control device. Since then, research outcomes abound with supporting and contradictory conclusions. For instance, Otley (1978) concluded in his research on budget use and managerial performance that there is a relationship between

budget style and accuracy of budget estimates. Similarly, Merchant (1981) conducts a study to find “how differences in corporate-level budgeting systems are related to corporate size, diversity and degree of decentralization”. The questionnaires dealing with budget-related behavior and attitudes were mailed to nineteen organizations in the electronics industry (in total 201 identified managers). Firstly, his results show that, larger, more diverse firms tend to use more formal sophisticated budgeting. In contrast, smaller firms tend to rely less on formal budgeting. Secondly, Merchant points out that budgeting, including more formal and greater sophistication of budgeting process, appears to have a stronger relationship to good performance in the larger firms, than in the smaller firms.

Mia (1989) conducts a survey among six companies operating in New Zealand to test the impact of budgetary participation on managerial performance. All the six firms in his sample have the same number of employees, between 100 and 1500. His study reports a positive relationship between participation and managerial performance when the level of perceived job difficulty in firms is high. In the extensive literature review conducted, Shield and Young (1993) identify three sets of antecedent conditions: desire to improve individual attitudes, behavior and performance, reinforcing a particular culture and providing a mechanism or organizational learning, as basis for the adoption participative budgeting as management control mechanism.

Contrastingly, other studies argue that the BPP relationship has a weak or even negative impact on managerial performance (Milani, 1975; Bryan & Locke, 1967). For example, Dunk (1990) investigates the impact of budgetary participation on managerial performance by distributing a mail questionnaire to 30 randomly selected organizations in the north of the United Kingdom. He finds that higher participation leads to lower managerial performance. He explains that this negative result might have been caused because, in participative budgetary settings, subordinates can manipulate the process to obtain easier operating budgets, which in turn leads to lower managerial performance.

In another form, Van der Stede (2000) reports evidence of spillover effect of budgetary control style on manager short-term orientation through survey data obtained from 153 business unit general managers in Belgium and analyzed through structural equation model. In addition, the study also revealed that business unit performance and competitive strategy may have effect on

the type of budgetary control style and its behavioral consequence. This finding amplifies the limitation of over reliance on accounting control system.

Other studies have also reported positive impact of budget on performance. For instance, Wijewardena and De Zoysa (2001) conducts a qualitative research among 473 manufacturing SMEs in Australia to examine the impact of financial planning and control on performance. They classified all firms in the sample into medium-scale firms and small firms. About 80 percent of sample firms belong to the small industry category and 20 per cent of sample firms are in the medium-scale category. The formality of budgeting planning and budgetary control in their sample differ between small and medium-sized firms, based on their report. King, Clarkson and Wallace (2010) report evidence of positive relationship between business performance and written budget based on the responses from members of the Australian Association of practice managers. Data from the responses was analyzed through multiple regression techniques.

Positive impact of behavioural use of budget has also been reported in the literature by Marginson and Ogden (2005) conduct a study on the effect of role ambiguity, leadership style, expectation of superior, occupational socialization on budget commitment, and the effect of budget commitment on managerial performance. Using mixed method approach in which quantitative results were used to complement qualitative evidence obtained from a UK communication company, the study revealed, where the role ambiguity was on the high side, it has an overriding effect on budget commitment than where the manager's is less ambiguous. In addition, budget commitment was reported to have positive impact on managerial performance. Similarly, Silva and Jayamaha (2012) report that budgeting practices or budgetary control practices impact on organization performances.

Research efforts on performance measurement are concerned with the use of financial and non-financial metrics to motivate employyes. Nitin and Mahto (2013) in their review of current trends of application of ABC, assert its importance to include: provision of accurate cost data that improve strategic direction, reflect real company performance and expose managers to those factors that drive costs. Earlier studies such as Cooper (1991); Kaplan (1992); Merz and Hardy (1993); Barthick (1995); Caroli (1996); Cooper and Kaplan (1998); Narayannan and Ratna

(1999) have reported the impact of ABC on the improvement product cost calculation and enhance cost controls.

Empirical evidences are available with respect to adoption and implementation of Balanced Scorecard (BSC) as hybrid measurement systems and its impacts on organization outcomes. For instance, Madsen and Stenheim (2015) classify studies on the adoption and diffusion of BSC into supply-side and demand-side. The supply side relates to actors like consulting firms, professional organisations, business schools and public sector agencies aiding the diffusion of BSC into practice. Benders and Aubel (2002), Ax, Heusinkveld and Bjornenak (2005), Bream, Bender and Heusinkveld (2007), Modell (2009) and Madsen and Slatten (2013) are studies whose findings reflects the activities of these supply-side agents as important drivers of BSC diffusion into practices. In specific term, Ax, Heusinkveld and Bjornenak (2005) investigated how the concept of BSC was communicated in the business media and conferences to Swedish firms. They confirmed that local consultants adapt BSC in a way that fit local markets. The demand-side studies concern with the rate of adoption by users. In this regard, Rigby and Bilodeav (2007) conducted a survey of large companies' managers worldwide with the 66% of the respondents claimed to have been adopting BSC as management tools.

The studies of Madsen and Stenheim (2015), Malmi (2001) among others relate to the motivational factors behind the adoption of financial and non-financial measurement system as well as hybrid systems .The adoption of management tools like BSC, ABC and other management tools cannot be without reasons. Researchers have advanced two types of explanations: economic reasons and institutional or social reasons (Madsen & Stenheim, 2015). Malmi (2001) conducts a semi-structured interview among 17 organizations in Finland to elicit reasons behind the adoption of BSC, the study identified: translation of strategy into action, management of organizational changes, and implementation of quality programme, response to managerial fashion and abandonment of traditional budgetary control. Similarly, Madsen (2013) surveyed 39 managers of Scandinavian organization and found the need to improved process relating performance measurement, budgeting, and strategy as well as organization politics and changes as motives for the adoption of BSC. These findings suggest that economic and institutional or social reasons are not mutually exclusive..

Expectedly, organizations or entities adopt management techniques to improve business process and other activities that could drive effectiveness, efficiency and in broad term, performance. The effects of BSC on organization outcome have also been an empirical research agenda. Braam and Nijssen (2004) argue that the effect of BSC use is related to how BSC is understood and interpreted. They are of the opinion that, there may be performance differences between an organization that use BSC as a performance measurement and the organization adopt it as a strategic management system. Lucianetti (2010) reports that BSC's strategy map usage enhance organization performance. Madsen *et al.*, (2015) affirm that the utilization of strategy map assist manager to visualize the organization strategic goal and in effect give a clear means of achieving the goal through the assumed causal relationship.

Economic Value added (EVA) is another financial measurement systems widely adopted in recent time. It was developed as an overall performance measure with implicit aim to influence manager's mind in the pursuit of shareholders values. Bearing this in minds, researchers have been conducting studies on how EVA is being used as accounting control technique. For instance, Otley (1999) argues that EVA, as a performance management technique or MCS technique, is relatively not strong for the evaluation of actions used by managers in the pursuit of organization objectives.

McLaren (2005) also conducts a case –study investigation on the implementation of EVA business philosophy in New Zealand. The results indicated that the technique is a benefit sharing mechanism after capital providers have been recognized. However, the finding affirms the use of traditional measures still persists. On this verge, one may argue that the combination of management control techniques in driving the organization objective seems acceptable among companies. Furthermore, the study gives evidences on the inability of EVA to eliminate peculiar problems (Short-termism, real investment option and economic dependence) of decentralized organization and that conflict of interests still exists among the adopting firms.

Similarly, Drury and Shishini (2005) conducts a survey study on the use of financial and non-financial measures in evaluating managerial performance. According to the result, only 9% of surveyed participants rank EVA as the most important measures. The study also gives evidences that EVA is hardly use as a method of evaluating divisional manager.

Incentive systems are forms of reward and compensation of which research findings have also indicated their impact on performance both at individual and organization level. Leonard (1990) investigates incentive plan of 439 large US enterprises with finding that return on equity of companies using long-term incentive plan increases significantly than companies with no such plan. Bhargava (1994) conducts a study on the compensation system on large manufacturing, construction and retail firms. The study shows that profit-sharing programme has a small positive effect on the financial performance. Hiltrop (1996) reveals the influence of an incentive-based compensation system on product quality and firm performance. Similarly, Yao (1997) reveals, in his empirical investigation of 400 state-owned enterprises in China, the impact of incentive system on the productivity growth of the organizations. At individual level, Bonner & Sprinkle (2002) affirm the conclusion of Atikson, Banker, Kaplan, young (2001) that monetary incentives can serve as method for motivating and improving performance of person using accounting information.

In contrast, Camerer and Hogarth (1999), Young and Lewis (1995) reveal that monetary incentives are not often improve performance because of its varying effects on efforts. Consistent with this view, Aston (1990); Libby and Lipe (1992); Tuttle and Burton (1999); Sprinkle (2000) are with mixed results on the individual performance effect of incentives as accounting control techniques.

2.3.1.2 Studies on Developing Countries

Use of Accounting controls mechanisms to collect information on subordinate activities and motivate them, though not very much in the literatures, are also available in less developed countries. Siyanbola (2013) reports that budgeting practices or budgetary control practices impact on organization performances. Other research efforts have also investigated the impact participative budgeting on firm-wide performance, managerial performance and goal commitment. In this direction, Mathew (2014) reveals a weak positive relation between participative budgeting and managerial performance as it was earlier reported by Radiah and Ida (2012) in a survey study carried out in the public sector of Malaysia. Osama, Mohammed and Abdulhadi (2013) test the performance differences of individual who participate in budget preparation and individual who do not participate with a finding and conclusion that performance indicator of participating individuals are more better than non-participating individuals. We may

comfortably infer from this particular study that participative budgeting is an element of MCS design to influence employee to pursue organization objective. In line with this argument, Shield and Young (1993) has identified three sets of antecedent conditions: desire to improve individual attitudes, behavior and performance, reinforcing a particular culture and providing a mechanism or organizational learning, as basis for the adoption participative budgeting as management control mechanism.

In line with the trends of findings, Shaban and Mazhar (2014) conduct a survey on the benefit of ABC among companies in Allahbad, India with evidences that it improve product cost calculation and cost control. Incentive systems are forms of reward and compensation of which research findings have also indicated their impact on performance both at individual and organization level. Empirical evidences are also available on accounting control systems and performance in Nigeria. The evidences are reviewed in the below sub-section.

2.3.1.3 Studies on Nigeria

The relationship between behavioral use of budget and performance has been empirically examined within Nigeria shore. Osundina and Osundina (2012) conduct a survey study on the effect of budgeting process and performance of Food and Beverages listed manufacturing companies. The responses from the survey were analysed through regression techniques with finding that budget process has significant effect on performance. The study measures budget from dimension how it is being used for planning, communication participation and control, while the performance was measure on the basis of shareholder wealth. Joshua and Ahmed (2013) also engage in a research similar to Osundina *et al.* (2012). In their own study, effectiveness of budget in performance measurement is examined in Nigerian hotel industry. The result of the survey research showed that budget is actually use as a performance measurement tools in the industry but need to be articulated. The study makes use of 12-items question to measure budget use. Siyanbola's (2013) finding on the use of role of budget as a tool that guide firm to evaluate goals and objectives affirms the preceding findings of behavioral use of budget. The study focus one single manufacturing company listed in Nigeria stock exchange.

Careful analysis of all the instruments used by the reviewed studies indicates that little or no emphasis was stressed on how budget are being used as communication tool to inspire subordinate.

Another study that has investigated the behavioral use of budget is that of Oluwalope and Sunday (2017). They investigate the relationship between budget participation, organization commitment and managerial performance. The study also uses primary data collected from 192 managers and employees of the five listed companies to establish the effect of budget participation on performance. Budget participation is measured through 7-items questions while managerial performance was proxied with 3-item question.

Research evidences available on cost control as an element of accounting-based MCS do not actually focus on how cost controls are being used to monitor all tasks carried out by subordinate. For instance, Oluwagbenga, Adeoluwa and Zacheaus (2014) investigate the relationship between cost management practices and firm performance in the manufacturing organization. Using 5-year secondary data from 40 manufacturing companies listed in the Nigeria Stock exchange, the study shows that a significant positive relationship exist between cost control and performance. Cost control is measured from dimension of cost management practices of direct material, direct labour and administrative overhead while performance is proxied with operating profit. It is obvious that the study is purely quantitative without element of behavioral dimension of cost control.

On the other hand, Asogwa and Etukafia (2017) conducted a study on cost control practice in Nigeria Public Universities. The study examined the cost control measures and their ability to enhance fund management. The quantitative analysis carried out revealed the weakness in the cost centres but show a strong significant positive relationship between fund management and cost control measures. Similarly, behavioural dimension of cost control is not stressed in this study. This trend was is reflected in the study carried out by Akeem (2017). The study investigates the application of cost controls and cost reduction on performance through a descriptive survey method. The responses from fifty (50) respondents analysed through regression analysis reveal evidence of significant positive relationship cost control measures and organization performance.

In relation to hybrid measurement or measure of diversity, empirical studies focused on determinants, awareness level, and usage level of balanced scorecard (BSC) in Nigeria. Esther (2013) conducts a study on the usage level of BSC among Nigeria quoted companies and its relationship with performance. The study reveals that few prominent companies listed on Nigeria Stock Exchange use BSC. The trend indicates that performance appraisal system has not been entrenched by majority and could not be linked to profitability, growth and other performance indices. Owolabi, Adetula and Taleatu (n.d) also confirm the low level awareness on BSC among Nigerian SMEs. Similarly, Patrik, Blessing and Gloria (2015) conducts a study on how the use of Activity-based costing (ABC) and balanced score card provide managers with information on performance measurement. The study's objective was achieved through a survey design. The result of the multiple regression analysis actually revealed a significant impact of ABC on BSC use.

On the determinant of the adoption of BSC, Oghuvwu and Onoye (2016) observed that BSC in developing countries was at infant stage. Using contingency theory, the study affirmed that firm size, attitudinal factors, top management support, organization culture and environmental factors influence the usage level of BSC. While on the performance effect of BSC, Okoye, Odum and Odum (2017) investigated the effect of BSC on firm value. The study employed secondary data obtained from annual reports between the periods of 2011-2015. Based on the results of multiple regression analysis, finding showed that firm with low business process perform significantly better than firm with high business process.

Empirical evidences are also available on the effect of compensation, an accounting-based MSC, on performance. From Oladipo and Adebisi (2008) who examined the effect of intrinsic and extrinsic reward on employees' productivity using primary data collected from 280 staff of University of Lagos. The results of the regression analysis indicated the existence of positive relationship between workers' productivity and extra reward. Findings from the study carried out by Ude and Coker (2012) also reveal a link between incentive schemes, employee's motivation and productivity in an organization. The study employs a desk research method to obtain numerous empirical findings that confirmed the existence of positive relationship between incentive scheme and employee's productivity.

There is also empirical evidence from qualitative research carried out by Ejumudo (2014) on the impact of pay reward system on staff performance in Delta State. Using a focus group technique, finding showed that the incongruence of pay reward system negatively impacted on staff performance. Although the study of Olanye and Eyela (2015) employs quantitative method, its finding is similar to that of Ejumudo (2014). The researchers use survey data collected from 500 randomly selected employees from 20 randomly selected organizations and analysed through regression analysis to show a positive effect of reward system, such as promotion, bonus pay and employee recognition, on employee motivation. A cross country study conducted by Catherine (2016) revealed evidence of variation in productivity of 344 and 237 agricultural scientists in Nigeria and Ghana explained by incentive system. Other factors identified to explain variation in productivity were educational level, year of experience, perceived adequacy of funding and physical and human resources.

2.3.2 Non-accounting control system and performance

2.3.2.1 Studies on Developed Countries

Research evidences on the use and impact of non-accounting controls on organization performance cut across discipline of behavioral management accounting and human resources management. Relevant studies such Jaworski, Stathakopoulos and Krishnan (1993) observe the use of behavioral control as part of control combination and found no significant effect of behavioral/action control usage on individual performance of marketing managers. Snell and Youndt (1995) examines the relationship between human resources management (HRM) control used by management and firm financial performance proxy by Return on Assets and sale growth. The result indicates administrative control impact positively on firm performance. In similar vein, Liao (2006) conducts a study on Taiwanese companies human resources management practices and found a positive effect of administrative control use on company performance. Davila and Foster (2007) in their study of the adoption MCS, evaluates portfolio of MCS of 78 early-stage start-up companies found the earlier –stage adopter of administrative control in their life-cycle experienced more success than late adopter.

Organization may also implement action/behavioral control through the use of feedback system, administrative mode of communication such as work rules, policies and procedures, company

code of conduct (Merchant & Van der Stede, 2007). Munstermann, Eckhardt and Wetzel (2010) examine the impact of business process standardization on firm performance. The study observed a significant impact on process performance particularly on process time, cost and quality.

Merchant *et al.*, (2007) argue that personnel controls grounded on employees' natural disposition to motivate or control themselves. They identify three major means of implementing personnel control similar to an aspect of administrative control: selection and placement of employee, training and job design with provision of necessary resources. Empirical evidences on these three methods of implementing personnel control are many in the field of human resources management. Recent empirical studies such as: Shonin, Gordon, Dunn, Singh & Griffiths (2014); Kim and Ployhart (2014) and Georgiadis and Pitelis (2016), on personnel control also support the thesis that staff selection and training have direct and interactive influence on firm performance. Furthermore, Fu and Deshpande (2014) examine direct and indirect relationship between caring climate, job satisfaction and organization commitment and job performance. Using structural equation model (SEM), the study shows that caring climate had a significant direct impact on job satisfaction, organization command and job performance.

In relation to cultural control, Merchant *et al.*, (2007) assert that managers struggle to entrench organization culture through code of conduct, mission statement, group rewards, and intra-organizational transfers, physical and social arrangements. Studies on corporate culture as an instrument of influencing behavior and its impact on organization performance are not many in recent time. Previous research such as Marcoulides and Heck (1993) examine the effect of organization culture on performance. The study used methodology of SEM to reveal the impact of organization on firm performance. Specifically, evidence on of effect of work altitude on the firm performance was reported in the study. Similarly, Ogbanna and Harris (2000) conduct a study on an established organization with a finding that dimension and type of organization culture and leadership style significantly influenced performance of a firm. In addition; Xenikou and Simosi (2006) observe a significant relationship of achievement and adaptive orientation to business unit performance. Bart and Baetz (1998) argue that incorporation and acceptance of mission in an organization will improve or impact performance. In line with this assumption, Chenhall, Hall and Smith (2008) in their study of social capital and management control, find

that satisfaction with mission statement, as a means of reflecting norms, value and purposes of organization, was significantly associated with performance.

Empirical evidences have also confirmed the impact of knowledge sharing culture on job satisfaction. In specific term, Trivellas, Akrivouli, Tsifora and Tsoutsas (2015) revealed a finding of how knowledge-sharing working environment lead to achievement of higher job satisfaction and subsequently effectiveness as a result of strengthened general competencies. Other related studies on cultural control investigate how corporate ethic contribute to firm financial performance and collective organization engagement. Chun, Shin, Choic and Kim (2011) reach a conclusion through a survey research that collective organization commitment and interpersonal organization citizen behavior interact with corporate ethics to affect firm financial performance. Barrick, Thurgood, Smith and Courtright (2015) test a theory of collective organization commitment in a sample of 83 firms and provided evidences that collective engagement mediate the relationship between motivating work design, human resources management and CEO transformational leadership and firm performance.

2.3.2.2 Studies on Developing Countries

Few evidences on the use of Non-accounting controls to achieve goal congruence and enhance performances are available in the literatures. Mission and vision statements have been investigated as non-accounting control techniques in developing countries. Denbi (2012) examines the potential impact of mission and vision statement on employee behaviors and attitudes in public but profit-oriented tertiary institutions in Ghana. Based on the survey of 120 employees, the findings reveal that most of the employees have low level of knowledge about the components/contents of the statements. The respondents see ownership as pre-requisite for the statements to impact on their behaviors and attitudes. Similarly, Babnik, Dermol and Sirca (2013) investigates the function of mission statement in guiding employee's behavior from cultural control perspective in Slovenia. Using content analysis, the study identified five associated organization's orientation-concern for stakeholders, orientation towards stability, orientation towards cooperation and innovation, and development and growth. Furthermore, the conducted interview confirmed mission statement's role in communicating declared organization culture.

Other forms of non-accounting controls that have been independently studied are training and induction. Sung and Choi (2014) examine the effect of training and development on organization innovation using time-lagged multi-source data collected from 260 Korean companies. The results reveal that corporate expenditure for internal training predicts interpersonal and organization learning practices which in turn increased innovative performance. Similarly, in West African sub-region, Atwi, Opoku, Seth and Margret (2016) examine the impact of training and development, performance appraisal and internal communication on employee performance. The study provides evidence of independent variables explaining ninety eight percent (98%) of the variance in employee performance. Specifically, internal communication had a strongest relationship with employee performance. The study employed multiple regressions to analyse the collected data. Few empirical studies on non-accounting in Nigeria are reviewed below.

2.3.2.3 Studies on Nigeria

Studies on mission and vision statement have also indicated its impact on employee performance and of course overall organization performance. Unyimadu and Obi (2011) evaluate the completeness and quality of an organization mission statement. Using nine-item mission statement evaluation scale to obtain quantitative data that was regressed on organization financial performance, the study revealed a significant positive relationship between the completeness and quality of mission statement and organization financial performance. Adegboyega and Olusanya (2016) also examine the effect of mission and vision statement on business performance in Nigerian insurance industry. The study reveals a weak positive relationship between bold display of mission statement and organization performance aspect of profit making. The contradictory findings of these studies may be as a result of different research design employed. The former used secondary data while later employed perceived primary data. However, the conceptual analysis of the role of a well-crafted mission and vision statement by Akeem, Alani & Edwin (2017) support the finding of Unyimadu *et al.*, (2011) that mission and vision statement as a non-accounting control system has the capacity to influence employees in their day-to-day activities and assist in the attainment of organization goals which in turn lead to overall organization performance.

Organization structure as a form of non-accounting control system has also been studied to reveal its influence on employee behaviors and overall organization performance. Maduenyi, Oke,

Fadeyi and Ajagbe (2015) conduct an extensive review on previous empirical studies on the impact of organization structure on organizational performance and observed that organization structure, to a large extent, contributes to organization performance. Thomas's (2015) survey study of the effect of organization structure on job satisfaction also show a positive correlation between organization structure and optimum job satisfaction in Nigerian financial sector. Similarly, Shabbir (2016) employs questionnaire survey to test the relationship between organization structure and employee's performance of brewing firms in Nigeria. The result of correlation and t-statistics confirm that nature of hierarchical layers has significant positive effect on employee performance. The study specifically reveals the significant positive effect of formalization on employee performance. Okafor, Kalu and Ozioma (2017) study of 279 respondents selected from Nigerian manufacturing companies also indicated similar findings that organization structure impact positively on the performance of pharmaceutical firms. The general trend on the role of organization structures as non-accounting control techniques shows that, a well-formalized organization structure affect performance of employees and overall performance of organization.

In relation to orientation as a form of socio-cultural control system, Salau and Falola (2014) examine the main attitude of workers towards induction/orientation to work, and the effect of the induction on employee commitment. The descriptive study reveals the significant influence of induction on employee attitude and behavior towards organization effectiveness.

It is also important to stress the weakness observed in the way and manners all the non-accounting control variables are being operationalized to capture the dimension of using these variable to achieve goal congruence and enhanced performance of the subordinate. To a greater extent, all the reviewed studies did not actually measure these non-accounting variables from behavioral dimension that actually represent the functionality of the control elements.

2.3.3 Combined use of Accounting and Non-Accounting Control System and Performance

2.3.3.1 Studies on Developed Countries

Otley (1980), Macintosh and Daft (1987) have argued for the contextualization of MCS operating as a package of inter-related components. In response to their argument Speckle (2001) echoes a serious concern over the reductionist nature of MCS research approach. Similarly,

Chenhall (2003) affirms that research practice in the area of MCS focused on accounting-based control with few research efforts focusing on the contemporary use of both accounting controls and non-accounting controls system.

In response to these criticisms and call for a broader perspective on the complementary or combined use of MCS components, Alverson and Kavernena (2004) investigate varieties of MCS in used in a large management consulting firms. The study observed that the company operates accounting control components and non-accounting control components. The study also reveals how control components assisted the company in achieving corporate objective through employees' compliance with organization strategic policies. Ford and Greer (2005) examine the relationship between commonly employed management controls and implementation success. Based on the survey of 80 managers in 22 Organization, the study supported its hypothesis that performance measurement and reward system as element of accounting controls system are significantly lower in use than most other element of management controls system in the implementation of planned change. Existence of significant relationship between the use management control system package and achievement of effective change was also reported. In this study, Management control system package was proxy by performance measurement, reward, outcome monetary, action planning, skill development and communication. The research work considerably aligned with the concept of MCS as a package.

Recent studies on MCS package have been carried out in different dimension. Some studies investigated the enabling and mediating role of MCS while others examine its impact on organization outcomes. In relation to the former, Chapman and Kihn (2009) investigate the enabling role of management control system on perceived system success and business unit performance among Finish companies. The evidence obtained from 300 business unit senior manager through a survey questionnaire supported the study's positive expectation that: enabling-repair MCS, enabling-internal transparency MCS, enabling-global transparency MCS and enabling-flexibility MCS broadly have positive effect on perceived system success and business unit performance. The study employed partial least squares techniques to obtained the quantitative evidence. Similarly, Kleine and Wiesenberger (2013) investigate whether the relationship between top management's leadership style and organization commitment are mediated by the use of formal (accounting) and informal (non-accounting) management control

elements. Survey data from random Sample of 294 managers of German firms was analyzed using Structural Equation Model (SEM) with the results that informal control (culture) act as hinge through which top management is able to positively transmit leadership behavior and affect the development of organization commitment. In addition, the study shows that the direct effect of leadership style on organization commitment is weak. Thus, positive effect styles are largely due to the current use of management control system package. In essence, the study demonstrate the mediating role of MCS in translating leadership behavior into organization commitment .The study adopted the framework of Merchant *et al.*, (2005) to operationalize MCS. Specifically, Results (accounting) controls, Action/behavior, personnel and cultural (non-accounting) controls were used to measure MCS package. These works did not also contradict notion of MCS package.

There are other studies whose methodology is fairly similar to Kleine *et al.*, (2013) in term MCS conceptualization and measurement. These are Verbeeten and Spekle (2015), Obinozie (2016), Lopez-Valeinas, Gomez-conde and Lunkes (2017) and Samagio, Crespo and Rodriques (2017) and Wald and Gleich (2018). Verbeeten and Spekle (2015) empirically examine the OECD-New Public Management argument that the effects of control structure choice on performance are mediated by the orientation on results. The study conducts quantitative analysis on the responses obtained from 96 senior financial manager of municipalities in Netherland through Partial least square (PLS) and finds that the various use of performance measurement system are positively and significantly associated with both result oriented culture and performance. However, findings at variance with OECD-NPM argument was observed. In essence, reliance on rule and procedures also contribute positively to the organization orientation and performance while decentralization was not correlated with either of the outcome variables. Marginal significant positive direct effect of monitoring on organization performance is also reported. Overall, the study provides little support evidence to the OECD argument on New public management with emphasis on the use of result (accounting)oriented control. Thus, this study offers evidence on the role of administrative (non-accounting) controls to the survival of an organization. MCS was comprehensively measured using Monitoring, incentive, strategic decision making, attention focus, operational decentralization, and rules and procedures.

Though the measurement of MCS in Obinozie's (2016) study is relatively narrow compare to Verbeeten *et al.*, (2015), the two studies reported similar findings. Specifically, Obinozie (2016) addresses the perceived relationship among management control system, business strategy and organization performance in US minority –owned manufacturing business. Responses of 1000 managers to questionnaire, analyzed through the use multiple regression analysis revealed evidence of significant positive relationship between MCS(Financial and non-financial) and performance in differentiation-strategy firm while in low-cost leadership firms, positive relationship between MCS and performance was also observed but not significant. The study failed to consider the some important element of non-accounting controls such administrative controls and cultural control as part of MCS which may affect the effectiveness of the study model in predicting the relationship between MCS and Performance as argued by Chenhall (2003).

Lopez-Valeinas, Gomez-conde and Lunkes (2017) also narrowly measure MCS in their study on how ownership, professional, type of contract, gender and tenure can condition employee reaction to MCS in case of three layer hospitals in Brazil. Responses from 100 personnel cut across Physicians, Pharmacists, Nurses and Administrative staff were analysed using ANOVA. The results revealed that the reactions to MCS were significantly different according to ownership structure, professional group and type of contract but no significant evidence was reported for gender and tenure. In essence, this evidence affirmed the need for MCS design based on contingencies at business unit level of any organization. This study also suffer a set back because of its reductionist approach as argued in Contingency–based MCS research. Specifically, the study used only Budget and balanced scorecard as Proxy for MCS.

Although Samagio, Crespo and Rodrigues (2017) study how different causal condition related to internal and external contingencies factors explain the use of MCS, It relatively uses a broad measure to proxy MCS. It also fails to consider cultural controls as part of MCS elements. Using cluster analysis and Fussy-set Qualitative comparative analysis (FsQCA) as methods of analyzing the survey data collected from 54 respondents of Portuguese firms, the study reports that four combinations of the six causal conditions are sufficient to predict total MCS use. More importantly, three configurations generated from the cluster analysis and Fussy-set Qualitative comparative analysis (FsQCA) explain 51% and 25% of the outcome of Planning MCS and

evaluation MCS respectively. Overall, the study revealed the complexity behind the use of MCS as there are several combinations that lead to high total MCS use. As earlier discussed, the study used Financial planning, financial evaluation, human resources planning, human resources evaluation, strategic planning and sales management to proxy MCS use.

Similarly, Wald and Gleich (2018) focus on cost management control system on cost efficiency and organization performance. They examined the impact of Cost MCS on cost efficiency and organization performance. Results of the data collected from 251 managers of European companies are analyzed through SEM and indicate that cost MCS increase performance through the mediating role of cost efficiency. The measures of MCS centered on how cost management is being used in the following areas: Strategy, information, organization, method and culture with no consideration on planning and reward system. Indeed, how MCS are being used to influence employee or subordinate behavior was not considered which is the general consensus in contingency-based MCS research (Malmi and Brown, 2008). Therefore, it may be argued that this study views MCS as decision support system instead of goal congruence device.

Using the same measurement approach, Arjalies and Murdy (2014) investigate how organizations use MCS to implement and monitor their corporate social Responsibility (CSR) strategy. They show how lever of controls are being used to identify and manage treat and opportunity associated with CSR. Using open and closed questionnaire to collect data from 40 listed firms in France, the study qualitatively observes that the four levers of controls are put into use to comprehensively manage treat and opportunity associated with CSR strategy. The study reflects the evidence suggesting the potentials of MCS to contribute to society's broader sustainability agenda.

The Levers of Controls Framework has also been used to examine how the control practices impact on performance at the stages of organization life. Baird and Scoch (2014) show how organization life cycle moderate the relationship between MCS and firm performance. Responses from randomly selected 343 general managers in Australian manufacturing business units indicate that the use of diagnostic use of controls is positively associated with organization performance in the revival stage while the interactive use of controls is positively associated with organization performance in the growth stage. MCS is measured in term of how controls are being used to monitor progress towards goals, how plan operation are to be conducted in

accordance with strategic plan while interactive use was proxy through measurement question relating to how controls are used regularly between operation managers and senior managers, how controls are been used to generate information that form an important and recurring agenda in the discussion between operation and senior managers. And on how control is being used as a means of developing on going action plan. Although, the study used only two aspects of levers of controls, its measure, to a greater extent reflect the use of MCS in the influence and monitoring of employees.

Lever of controls framework has also been used by Janke, Mahlendorf and Weber (2014) to investigate how management control systems are being used in a perceived negative external crisis. This study explore the reciprocal relationship between perceived negative external crisis and interactive use of overall MCS through the cross-lagged panel design using data from two surveys of 332 cases across Germany, Australia and Switzerland. The results from SEM analysis show that perception of negative external crisis effects lead to more interactive use of MCS. Finding also support a positive effect of the interactive use of MCS on senior manager's perception of negative external crisis effect. In line with the study objective, MCS was measured through reflective construct adapted from Naranjo-gil and Hartman (2006, 2007). The scale focus on how MCS is used to set and negotiate goals and targets; encourage new goals and priorities; signal key strategic area; challenge new ideas and way of doing thing with subordinate. This work reflects how MCS plays can be used to align organization goals with employee orientation.

Empirical evidence is also observed in the literature on the use of MCS across different modes of innovation. Bedford (2015) examines the MCS use in different innovation environment and its effect on performance. The study focused on how top managers attempt to simultaneously balance exploitation and exploration through MCS use. With the survey data collected from 400 firms and analyzed using cluster analysis, ANOVA and ordinary least square regression, evidence shows that the pattern of use and interdependencies among control levers associated with enhanced performance differ, depending on the mode of innovation. In other word, control levers are independently associated with enhanced performance in firms that specialize in either exploration or exploitation. This finding suggests that levers of controls are supplementary rather complementary in the context of the type of innovation. However, in ambidextrous firm, diagnostic and interactive levers are shown to be related and have interdependent effect on

performance. However, the research work only focuses on diagnostic and interactive use of budget and performance measurement.

Heinicke, Guenther and Widener (2016) also adopt levers of controls framework to investigate the extent to which firms' emphasis on flexible culture related to the emphasis placed on belief, boundary, diagnostic and interactive controls and how size of the firm moderate this relationship. The study comprehensively focus on all levers of control as packages and collected survey data on the four levers of controls from 267 top managers of medium-sized firms in Germany. The results of the Structural Equation Model (SEM) support the study hypothesis that the four levers of controls are positively correlated with Diagnostic controls system (DCS) and interactive control system (ICS) highly correlated but not perfect. This suggests that all the four levers of controls reinforce one another to provide desired results. The study also reports a positive significant association between extent of flexible culture and emphasis on belief controls. This implies that the more a firm emphasis on flexible culture, the more use of belief control system. Result on the contingency aspect of the study affirms the argument that smaller firms are to a greater extent employ cultural controls than larger. Each lever of control is measured in term of the extent to which Performance measurement systems (PMS) are being used by top manager to track and monitor critical success factors of subordinate (DCS), extent to which PMS are being used by manager as communication tools to spur debate and dialogue about uncertainty (ICS), extent to which manager communicate core value, purpose and direction (Belief control System) and extent to which manager communicate areas that off-limit to employee. As earlier argued, the results of this study, to a certain degree, affirms the theoretical concern of the MCS as a package.

Similar study that has empirically investigated the practice of MCS as a package is that of Bedford, Malmi and Sandelin (2016). The study examines the management control combination that are effective in different strategic context. With aid of Qualitative Comparative Analysis (QCA), it is observed that all Management controls in used are necessarily relevant for achieving effective control outcome when examined as part of MCS package. The study also indicates that defender firms have more effective control outcome when they combine mechanistic structural control with diagnostic control, while prospector firm benefit more when they combine organic structural control and interactive use of accounting. This cross-sectional study of 400 top

managers in Australia firms empirically confirms the notion of contingency that there are multiple ways by which firm can combine Management controls in a given context to achieve effectiveness. It also affirms the necessity of fit between management controls to achieve desired effectiveness. Variables used to measure MCS package in the study are: Diagnostic control, interactive control, tightness of accounting control, measure of diversity, incentive pay, structure and input control, and to a greater extent cover firms' Management control practices.

Management Controls System as a package has also been investigated from the perspective of Malmi and Brown's (2008) framework. Bedford and Malmi (2015) provide empirical evidence on how accounting and other control mechanisms combine and the relationship between the combination and firm context. The cluster analysis of the data collected from sample of 400 firms in Australia revealed five control configurations (simple, results, action, devolved and hybrid) commonly used by managers. These controls configurations have relationship with how managers perceived environmental uncertainty, task characteristics, and size of the firm measure in term of number of employees, age of the firm and nature of strategy employed. The study also observed that different control configurations match with the same contextual features while some control mechanisms in different configurations display equivalent emphasis even where the contexts are different. Management controls was broadly measured using the entire five elements in Malmi's *et al* (2008) control framework.

Bouten and Hoozee (2016) conduct a study on how MCS package of controls are being used to enhance safety performance. The results of the interview conducted on a Belgian firm shows that management realized the need to use different type of controls in order to improve safety throughout the entire firm. The study reveals that planning, cybernetic, reward and compensation are put to use at middle-level management, while all the five controls elements (Planning, cybernetic, reward and compensation, administrative control and cultural controls) contain in Malmi *et al.* (2008) are in use at supervisor level, while at worker level, all the control elements excluding planning are in operation. This finding supports the argument that cybernetic and compensation controls are not sufficient for effective management. Similar finding had earlier been reported by Dittilo and Libbi (2014).

2.3.3.2 Studies on Developing Countries

Recent studies have also used the Simon's (1995, 2000) levers of controls to examine the practice of MCS across firms and industry in developing economies. Aquaah (2013) compares the relationship among management control system (MCS), business strategy and firm performance in family and non-family business in Ghana. Based on the data collected from 106 firms (including all 35 listed companies in Ghana) and analyzed using mediated regression analysis, positive influence of Diagnostic Controls System (DCS) on the implementation of cost leadership strategy for Family business and non-family business was reported but such influence was not observed in the execution of the differentiation strategy. In addition, it is also revealed in the study that cost leadership strategy fully mediates the relationship between DCS and performance, while differentiation strategy mediates relationship between Interactive Control System (ICS) and firm performance. The study further shows that Family business benefit from using DCS to implement the cost leadership strategy and received benefit in using ICS to implement differentiation strategy. Similar result is also reported for Non-family business. These evidences corroborate the need to design MCS in the context of firms' internal and external characteristics. However, the study only uses two out of the four levers of control as advanced by Simon (1995, 2000). It emphasizes on how performance measurement system are being used to diagnosis the activities of subordinates and communicate with subordinates.

Similarly, Ilias, Zakana and Abdulatif (2017) use Merchant *et al.* (2005) control framework to examine the relationship between organization culture, management control system and performance within Malaysian local authorities. The results of the survey questionnaire sent to 355 respondent revealed evidence that organizational culture and performance through the use of MCS, are positively related. In other word, organization culture influences the practice of MCS and eventually affects performance. The study also employed SEM as a method of data analysis.

Though the study of Auzair and Amir (2017) uses the instrument developed by Langfield-smith (2005) to proxy MCS and introduced strategic choice as contingency variables, Its finding reflects trends similar to Ilias *et al* (2017) and Kleine *et al* (2013).Essentially, It is revealed in the study that differentiation strategy appear to affect the use of bureaucratic controls (cybernetic or accounting controls) to increase performance. In addition, the result indicates no significant in direct effect of bureaucratic MCS on the relationship between cost leadership and performance.

Thus, usage of formal MCS seem to be prominent in Malaysian hotel industry. However, the study did not include cultural controls as element of MCS package.

Studies on management controls can be said to be traditionally focus on large organizations (Chenhall, 2003). Only recently research interests have shifted to how SMEs are being fair in their control activities. Carlson et al (2006) report that organization with strange sales-growth performance use cash incentives compensation (a component of result control) to encourage and motivate employees. Also, within the same line of research, Davila and Foster (2005) report a positive association between the adoption of generating budget and company's growth for early stage company.

Concerning the usage of non-accounting control or action control, Carson et al (2004) in their empirical study on the use of action control observe that training and development, recruitment package and competitive compensation are significantly impact on organization performance on family owned SMEs. Sels *et al.*, (2006) also report similar result that a positive linear effect exists between HRM usage intensity and small business productivity. Davila and Foster (2007) similarly report that start-up SMEs that implement behavioral control early in their life cycle were more successful in comparing to later adopter.

Recent studies on the use of Management Control in SMEs reported a positive relationship between control component and outcome criterion. Shelleman (2016) supports the forgoing findings in his empirical study by reporting that Management Accounting system are being used among SMEs to facilitate decision making for both planning and control system. It was reported in his study that Management Accounting enhances SMEs performance. Generally speaking, Bedford and Malmi (2015, p. 12) report that simple control configuration, "describe as largely informal, achieve through centralized decision making, restricted autonomy and direct supervision....." associated with smaller size early stage firm, in addition they reveal that less emphasis is placed on the use of administrative technology and bureaucratic control mechanism.

However to the extent of literature search and reviewed, no study has documented empirical evidences on combined use of accounting and non-accounting control systems in Nigeria.

2.3.4 Contingency Factors, Accounting and Non-Accounting Controls System

Although, evidence revealed so far on the MCS adoption and its roles on organization outcome have indirectly discussed some contextual variables, research evidences on the direct and moderating effect of contingency variables need to be comprehensively reviewed in order to find a logical basis between the organization practices like MCS and contextual variables. Chenhall (2003) in his review on MCS design identifies external environment, technology, tasks uncertainty, contemporary technology, organization structure, size and strategy as contingency variables that dictate the effectiveness of any MCS design in an organization. In reference to this thesis's research questions, Environmental uncertainty, Task uncertainty characteristics, age and institutional factors are the focus of this section.

2.3.4.1 Studies on Developed Countries

Studies on the influence of environmental uncertainty have been carried out in relation to different management practices majorly in the developed economy. Jonsson (2000) conducted an investigation on whether companies in dynamic environments substantially invest in advanced manufacturing technology than company in a stable environment. Using survey instrument administered on 324 companies, significant difference was revealed between the environment of the three group created by cluster analysis. The significant difference was a result of ANOVA analysis. More importantly, Environmental uncertainty was measured through market uncertainty and political uncertainty.

Agbejule (2005) conducts a study on use of management accounting systems, PEU and managerial performance by 69 business unit managers across telecommunication, construction and metal industry in Finland. The survey-based study reports existence of positive relationship between Management accounting system and performance under highly perceived environmental uncertainty but negative relationship under low PEU. The moderated regression analysis also established that PEU interact with different variation of management accounting system to influence performance. In this study, PEU was also narrowly measured from the angle of the rate at which (slow-to-rapid) product and service become obsolete, rate of innovation in products, services and process and the rate of change in customer taste and preference, while MAS is measured in term of broad scope of information, aggregation, integration and timeliness.

The result of Ketokivi (2006) looks similar to Jonsson's conclusion because the environment, measured in term uncertainty and variability of demand, was reported to influence the choice of flexibility strategy. However, Technology and strategy seem to also contribute to the choice of specific flexibility strategy. In the same line thinking, Hung (2007) conducts a case study of a Taiwanese manufacturer on the implementation of Total Quality Management (TQM) and its effect on quality and innovation performance. The study examined how business environment mediate the relationship between TQM and performance. Based on the interview result, it was observed that environment, to a certain degree, mediated the effect of TQM on innovation performance. Looking at the trend of this line research, it may be argued that environment uncertainty is not comprehensively and consistently measured, in spite of similar findings being reported.

In contrast, Koufteros, Vonderembse and Doll (2002) engage in study with hypothesis that firms in uncertain environment will adopt higher of integrated product development practices than firms in more certain environment. Questionnaire responses from sampled 244 companies, analysed via structural equation model showed the evidences of no difference between the two level of uncertainty. Merino-Diaz De Cerio (2003) in his study, measures environmental uncertainty differently from the two foregoing works. They examined whether companies facing higher level of competition use higher level of quality management practices. Data obtained through survey instrument was analyzed through probit regression and cluster analysis. No relationship was observed between level of competition and quality management practices. Specifically, Environmental uncertainty was narrowly measured using level of market competition. Similarly, Pagell-Krause (2004) examines effect of the environment on manufacturing flexibility with a result of no relationship between the level of manufacturing flexibility and environmental uncertainty. Methodologically, path analysis was used to analyse the surveyed data. Environmental uncertainty was measured through three variables of Munificence, Instability and Complexity.

Raymond's (2005) finding is similar to the studies in the foregoing paragraph but his choice of Canadian manufacturing SMEs as unit of analysis make it slightly different. He specifically examines the effect of environmental uncertainty on the assimilation of advanced manufacturing technology. Based on the result of Partial least method, the hypothesis that environmental

uncertainty affects assimilation level of manufacturing technology is rejected. Degree of change and unpredictability are used to measure firm's market, competitors and production technology.

Studies on the relationship between environmental uncertainty, management control and organization outcome (e.g. performance) are also abound in the literatures. Ezzamel (1990) examines the effect of environmental uncertainty, managerial autonomy and organization size on budgetary characteristics among 81 United Kingdom (UK) companies. The study uses survey data to test degree of correlation between the variables and concluded that organization's budgetary system is related to contextual variables facing the organization. Interestingly, perceived environmental uncertainty was measured from the perspective of supplier, competitor, customer demand, financial market and changes in government policy. This may account for the finding that perceived environmental uncertainty (PEU) has stronger impact than other contextual variables.

On the other hand, Gul (1991) studies the interaction effect of Management Accounting System (MAS) and perceived environmental uncertainty on Small manager perception of performance through a survey of 42 SMEs in Australia and concluded that Sophisticated MAS has positive effect on performance under high level of PEU but under low PEU, the effect is negative. Although, MAS was broadly measured through the 20-items developed by Chenhall and Moriss (1986) while PEU was proxy by task uncertainty, other areas of management controls such as administrative and cultural controls were excluded. In addition, task uncertainty as measure of PEU was too narrow to justify the conclusion. The studies of Gul and Chia (1994); Lee and Miller (1996) and Fisher (1996) reveal Similar findings. Indeed all the studies used linear and moderated regression analysis to obtain the findings. Similarly, Chenhall (2003) in his summary of the evidences on environmental uncertainty and management controls affirms that broad scope of management controls in term of use is very essential for organization to achieve appreciable performance in a condition of high level of perceived environmental uncertainty.

In an effort to further confirm the conclusion of Chenhall (2003), Hoque (2004) investigates the determinant and consequence of performance measures among sampled 100 companies in New Zealand. Through the use of path analysis, no evidence of significant relationship between environmental uncertainty and performance through manager's use of non-financial measure is reported. The study methodology was consistent in that PEU and organization performance was

measure through the scales developed by Gordon and Narayan (1984) which have been consistently used in MCS research. The only point of departure from previous study is the adoption of Path analysis, a more robust bivariate analysis technique.

Furthermore, Hoque (2005) examines the contingent effect of environmental uncertainty between the use of non-financial measures and organization performance through the questionnaire administered on 52 companies in New Zealand. The results of the multiple regression analysis inform the conclusion that firm has a greater tendency to use non-financial measure under the condition of high level of environmental uncertainty .In essence; the level of uncertainty may seem to be associated with the use of informal style of MCS. Chenhall (2007) affirms that uncertainty has been the most commonly considered aspect of external environment in empirical research. Duncan (1972) argues that as the level of uncertainty increases, the controls in an organization become increasingly difficult because organization predictive ability about the relationship between action and outcome diminish. Chapman (1997) further support this argument with the notion that under the circumstance of uncertainty, accounting based mechanism may not be appropriate because they provide incomplete set of information.

In the study of the Interaction effect of environment, measured through competitive intensity, and business strategy on the relationship between financial leverage and firm performance, Jemia (2008) uses a panel data obtained from 176 US firms to show that intensity of environment in term of competition affect the leverage-performance relationship. The study is practically different from previous studies because environmental characteristics were narrowly measured through a secondary data. Thus, the study may suffer generalizability since the result may not be comparable with other studies.

Dropulic (2013) investigates the relationship between the use of MCS and business strategy, company size and external environment among manufacturing companies in Croatia through mailed survey. Positive associations were established between MCS use and business strategy and company size, while such relationship was not observed for external environment which was measured from the dimension of PEU. The findings emphasize that large companies tend to use more of cybernetic control (Accounting control) and cultural control(Non-accounting control) than medium companies. In addition, the use of cybernetic and cultural control is high in differentiation-strategy companies than medium companies. The negative relationship observed

between MCS and PEU may be attributed to the extent to which MCS is captured in term of measurement. In this study, the items used to measure MCS did not adequately capture all the MCS elements as described by Malmi *et al* (2008) framework.

In relation to task uncertainty, Chenhall (2003) opines that high level of task uncertainty relates to the use of more informal controls .In other word, high level of task uncertainty attract less reliance on standard operating procedures, programmes and plans, accounting performance measures, behavior controls; high level of participation in budgeting; more personal controls, clan control, and usefulness of broad scope information.

Empirical studies in this line of thinking after 2003 need to be evaluated to affirm the constituency of findings. In Developed economies, Dittillo (2004) looks at task uncertainty from the dimension of knowledge complexity with the aim of examining how knowledge complexity relate to the use of MCS (action-oriented control, result controls and cultural control).Using a case study research conducted through interview, document analysis and direct observation, the study reveal that computational complexity(a dimension of knowledge complexity) tend to be regulated through action controls, technical complexity relate to the use of result oriented controls, while cognitional complexity portend the use of personal/cultural control. Although, the stud was purely qualitative, its finding empirically confirmed Chenhall's submission. Also in support of Chenhall proposition, Tillema (2005) reveals in his study that a stable environment related to the use of average scope accounting instrument. Similarly, Bedford *et al.* (2015) report that relatively predictable and stable environment is associated with result controls. However, a part of the research evidences of Bedford *et al* showed a contradictory finding to Chenhall thesis. Indeed, the result shows that action controls have found to be in operation in a more unpredictable turbulence and hostile environment. Early study by Ahrens and Chapman (2004) bear similar evidence to that of Bedford et al., as it was reported in their study that organization tends to have more capacity to operate in highly dynamic environment using a bureaucratic structure in a flexible pattern.

Using survey data from 131 senior managers of companies in Australia, Chong (2004) conducts a study to test the job relevant information, between management accounting system and task uncertainty toward managerial performance. The result showed that three direction-interaction of job relevant information, management accounting system and task uncertainty influence

managerial performance. Also revealed in the study that, in a high situation of task uncertainty, the use of broad scope management accounting system and job relevant information to make decisions influence the improvement managerial performance.

Wolkinazari and Abdulkarim's (2012) findings support the proposition. The study, using a regression equation, reveals that in high task uncertainty and decentralized situation, broad scope and aggregated information promote user satisfaction. Similarly, Hartmann and Slapnicar (2012) in their own study examines the argument that the amount of task uncertainty managers face in their job content moderated relationship between perception of justices and performance evaluation procedures. With the survey data collected from sampled 178 upper-middle level managers in twelve Slovenian commercial banks, analysed through partial least squares(PLS),the study confirmed the hypothesis that relationship between the degree of formality of target setting, performance measurement and reward in the financial, operational, employee relationship and quality service dimension of performance and perceived procedural justice is positive for managers with low task uncertainty, while the hypothesis that the use of outcome measures has negative effect on perceived procedural justice for manager with higher level of task uncertainty failed to be confirmed. Findings from this study partially support the argument of Chehall and the preceding results. The mixed results may also be attributed to the inconsistency in the measurement of task uncertainty (TU) in these studies. Apart from the foregoing, MCS is also narrowly measures in term of formal controls. However, these studies give insight to the relevance of task uncertainty and personal reaction in the design and use of management control system for the attainment of goal congruence.

Fullerton, Kennedy and Widdener (2013) examine the use of management control practice among 244 sampled companies in the United States (US), from another dimension. They investigate the extent to which lean manufacturing technology implementation associated or related to management control system, measured in term of simplified strategic reporting, value costing, visual performance measurement information and employee empowerment. The structural equation model (SEM) analysis reveals positive relationship between implementation level of lean manufacturing technology and management accounting and control system. In addition, the result also show a positive relationship between four out of the five management accounting and controls, indicating the existent of MCS as a package. Interestingly,

measurement of technology in this study is markedly different, yet a positive relationship was reported. Indeed, the construct was proxy in term of Standardization of manufacturing process, reduction in set-up time and one-piece-flow which indirectly reduce the level of task uncertainty.

Studies on MCS practices have also been carried through the lens of institutional theory. Messner (2015) affirms that institutional-based MCs studies relate to how “*set of belief and norms that prevail in particular institutional field to which the organization belongs*” influence or affects the MCS choice and practice. Interestingly, much of these studies are qualitative in nature. Dambin, Lambert and Sponem (2007) is an earlier typical study in this line of research. This study examines how intuitional logic/pressure diffuses through management accounting system of firm. Interview Responses obtained and analyzed through INVIVOS from a case of Pharmaceutical Company in France reveal that consumer goods practices were considerably instutionalized. Specifically, consumer goods industry management culture as an element of control is the most widely accepted, while the diffusion of the ideal of the consumer goods industry in the area of behavioral control appear difficult but the new ideal relating to accountability principles seems to be already widely developed.

Although the study of Hyvonen, Jarvinen, Pellien and Rahko (2009) focuses on public sector, It also demonstrates the influence of institutional pressure on management accounting and control practice. In a more specific term, the study examines how Finnish Defence force reacts to pressure from State Audit Service to change their management accounting system. Interview was conducted on 29 personnel involved in design and implementation cost accounting and reporting system of two case studies in Finland. The study reports that the influence of Enterprise Resource Planning on Management Accounting practices is often minimal. It shows that despite the radical change in IT environment and considerable outside pressure to adopt more sophisticated costing system, Management Accounting System in the Finish Defence Force remained relatively stable during the period of observation. The only change observed in first case study is the introduction of fixed asset register for external purpose, while in the second case study, a system of reporting hour worked is introduced and integrated to the existing management accounting system.

In another dimension, a cross-country study by Jazayeri, Wickramsinghe and Gooneratne (2011) reveals variation in Management Accounting and Control Practices as a result of institutional

pressure in two manufacturing companies in UK and Sri Lanka. Evidences obtained from in-depth interview and documentary evidence show that the adoption of Business Value Scorecard (BVS) was influenced by an internal cultural change programme in the UK manufacturing company, while in Sri Lankan Manufacturing Company, external knowledge diffusion programme gave rise to the use of balanced Scorecard. However, it was reported that the externally imposed BSC adoption lead to internal controversies and consequently workforce became resistive. This lead to the diversion of attention to other management fads such as total quality management, six sigma and ERP but all these were also used for short period of time.

Variation in Management Accounting and Control Practice occasion by institutional pressure has also been reported in public sector setting. Ezzamel, Robson and Stapleton (2012) examine the role of education reform and local management scheme (Isomorphic pressure) on budgetary practice of UK Local Education Authority (LEA). Specifically the study focus on how school funding requirement in England and Wales has diffused to influence budgetary practice. Evidences observed from document inspection and responses from education officers, treasurers, and personnel staff and educationist of Three LEAs revealed the two isomorphic pressures considerably impact on their task and organization in their area of budgetary practices. The study also show that variation in practices is informed by the prevailing political ideologies as the political identity reflect how each responsible officer manage the issue of “overstaff” .

Similarly, Kantola and Jarvinen (2012) investigate how organization (public hospital) attempts to address the pressure imported by the field of health care. They specifically examined how Finish Hospital adopted the newly-introduced Diagnostic-Related Group-based accounting system. Evidences of the interviewed-based study and complemented with archival data revealed that the later adopter of the new system abandoned their old system owing to efficiency consideration. In other word, the new system enhance monitoring of hospital by their financier. The study also argued that the adoption of DRG-based-accounting system by the hospital can be explained from the perspective of independence and dependence. The independence affirms the use of management accounting for decision-making purpose while dependence echo the idea of using management accounting for the purpose of comparable cost information to enable public control of health care expenditure. The study therefore concluded that the late adopter of the new system

could be described as independent because the adoption decision was connected with efficiency and decision while earlier adopted could be described as dependent since the adoption of the new system was informed by the need for public control of expenditure of health care.

Gamage and Gooneratne (2017) also reveal from interpretivist perspective how management controls are being used in a tension between external institutional force and the internal dynamics. Responses of the personnel from finance and non-finance divisions of the apparel company indicated that external pressure seems to influence the choice of MCS practice. Consequently; organization actors change their existing Key Performance Indicator (KPI) in reference to customer specification. In addition, the pressure from customer also has influence on the choice of organization structure and procedures. The study also reflect how the company adopt a strategy to repel the pressure from expert myths and exert power in line with their interest in determine a particular system and procedure within the organization.

In relation to Management control practices, Hutzschenreuter (2009) build on the agency theory perspective put forward that organization learning through ages reduces management control costs because it learns about the most effective control forms and ways of executing them effectively. in view of this argument, Hutzschenreuter (2009) affirms that age is beneficial to all controls mechanism. Earlier studies on the effect of age on MCSs is that of Davila (2005) whose study revealed that low age SMEs are associated with more use of administrative and sociological controls form, increase in age is related to the more use formalized or mechanistic MCSs. Hutzschenreuter (2009) on the other hand find that the usage level of formal controls is not significantly different between young and established SMEs in Germany. Similar to Davila's finding, Bedford (2015) in his study of configurations of control of 421 Australia firms, revealed through cluster analysis that simple control configuration in the form of organic control are associated with early stage small firms.

2.3.4.2 Studies on Developing Countries

Empirical studies on management accounting and controls system have also been carried out in developing countries. Fuadah, Nasir, and Isgiyarta's (2014) reports significant positive

relationship between business environment, delegation of authority and management accounting and control systems among sampled 108 manufacturing companies listed on Indonesian Stock Exchange . Although the study adopts a robust statistical technique, business environment characteristics were measured from the perspective of market competition, while MCS measure focus on five aspects: planning, controlling, costing, directing and decision making which are also not broad enough to justify the study conclusion.

Recently, Al-Mawali (2015) conducts an investigation on the relationship between strategic management accounting, perceived environmental uncertainty and organization performance among sampled 106 companies listed in Jordan stock exchange. Using hierarchical regression, the study indicated that Perceived environmental uncertainty, measured from the point of view of intensity of market competition moderated relationship between Strategic Management Accounting (SMA) and performance. Specifically, highly perceived environmental uncertainty reflects high usage of SMA. The usage of SMA was also reported to have positive effect on performance. Although, the result is similar to previous studies in the field of MCS research, the measurement of PEU from the perspective of market competition alone can be described as weakness part of this study design as other areas of the environment like governmental activities, supplier's and customers' attitudes in term of predictability, complexity and turbulence may have considerable impact on the usage level of SMA. The study also restricted itself to narrow measure of MCS. Also within Gulf peninsula, El-Shishini (2017) conducts a study on how intensity of market competition, quality level of hotel and size related to the use of management accounting techniques was conducted. Result of Correlation analysis of data collected from the 37 sampled hotels in kingdom of Bahrain shows that the usage level of management accounting techniques are positively related with intensity of market competition but no significant relationship was reported between management accounting, size and quality of hotel.

In Libya, Haedr and Mehafdi (2017) give account on management control practice among 60 large manufacturing companies in Libya during period of relative political and economic stability. They used a two-level contingency model and survey data, through a stepped mediation regression to affirm contingency relationship between centralization, formalization, environmental uncertainty, competitive strategy and management control effectiveness. It was observed from the results that the organization variables significantly influence MCS

effectiveness. In addition, a full mediation in relation to centralization, management accounting information and MCS effectiveness was observed while partial mediation was detected for formalization, environmental uncertainty and competitive strategy. The study also measure PEU in term of predictability while Chenhall and Morris (1986) scale was also adapted to measure management accounting information. Similar result has also been reported by Huynh (2017) among public listed firms in the Vietnamese stock exchange.

In relatively less developed economies, studies on relationship between management accounting control system and task uncertainty are few in numbers in the literatures. More recent works on TU and MCS in less developed countries are that of Buathong and Bangchokdee (2016) and Efendi, Adjie and Fuad (2016) in Thailand and Indonesia respectively. The former study examined relationship between TU and the manager use of Balance Scorecard. Through the Structural Equation model (SEM), positive relationship was reported to exist between TU and financial measures but TU is not related to the use of non-financial measure. Based on the result, the author concluded that, 372 middle level managers in the sampled hospitals primarily use financial measure in their decision making and control functions. Of note, task uncertainty was measured using Abernethy and Stoelwinder's (1991) 8-item scale. The scale reflects TU in term of uncertainty of outcome, difficulty of process, unclear time spent, frequency of exception and different steps, suggesting consistency with previous studies in TU measurement. Efendi, Adjie and Fuad (2016) also reported that broad scope MAS and integrated MAS influence managerial performance among co-operative organizations in Indonesia. The interaction effect of task uncertainty, Broad scope MAS and Integrated MAS strengthen the managerial performance was observed in the study. However, how TU was measured is not explicitly stated.

Few studies on the influence of institutional pressures on Management control practices can be sighted in the literature. Within public sector, Kasumba (2013) conducts a qualitative study on the extent to which institutional pressure can be deployed to reinforce each other in creating and sustaining new budgetary practices among local government in Uganda. The study used interview to elicit responses from the officers of local government, central government, aid agencies(such as World Bank).Based on these responses, it was concluded that institutional pressures were intertwined with intention of creating and sustaining the new ways of transporting changes in organization practices across jurisdictions. The study specifically shows that coercive

pressure were supplemented by normative pressure in creating both demand and supply changes in organization practices in local government. In addition, National Government deployed mimetic mechanism as strategies to influence the action and decision of supranational agencies which had vital financial and technical resources need for local government development. This in effect led to coercive pressure.

In a more recent study, Ahrens and Khalifa (2015) examine the impact of regulation on Management controls. They show how universities respond to the institutional logic of new management controls. Through participant observation of three Universities, note on accreditation behaviours was documented with evidences that compliance with accreditation take considerable time and effort in translating accreditation requirement into appropriate organization strategies. Overall, the study concluded that compliance to institutional pressure is informed by both legitimation and performance.

Gamage and Gooneratne (2017) also reveal from interpretive perspective how management controls are being used in a tension between external institutional force and the internal dynamics. Responses of the personnel from finance and non-finance divisions of the apparel company indicated that external pressure seems to influence the choice of MCS practice. Consequently; organization actors change their existing Key Performance Indicator (KPI) in reference to customer specification. In addition, the pressure from customer also has influence on the choice of organization structure and procedures. The study also reflect how the company adopt a strategy to repel the pressure from expert myths and exert power in line with their interest in determine a particular system and procedure within the organization.

Studies on the effect of age on organization practices have been inspired on the argument that firm learns about their ability and how to do thing better as they get older (Rossi,2016),and these across different aspects of organization management. In relation to firm value and performance, Leite and Carvalhal (2013) conduct a study on the relationship between firm age, value and performance of Brazilian companies. The results of the analysis of 250 listed companies show that older firm show higher value and better return than younger firm, and that older firm reflect better governance practices. Age was measured from the date of incorporation to date. With respect to innovation and organization learning, Hui, Jasimah, Jenatabadi &Kasim (2013) examine the moderating effect of age and size on the relationship between organization

innovation and organization learning on organization performance of 168 manufacturing companies in food industry in China, Taiwan and Malaysia. Through a Structural Equation Model (SEM) analysis, the study revealed the beneficial effect of both innovation and organization learning to be stronger in older and larger firms whereas, only organization innovation exerts a stronger effect in younger and small firms. Age was measured as the number of years passed from the date of establishment of the company.

Though strategy is not part of contingency variables considered in this study, it has revealed in the extant literatures that MCS are sometimes designed to support strategy (Widener 2004).

Chenhall (2003) argues that manager strategic choice predicts the particular choice of MCS. In other words, strategic direction of an organization is a function of certain types of MCS. It can be observed from the table above that the dimension of strategy entails prospectors; Defenders; build-hold harvest and product innovation. With respect to product innovation, Yin and Gullkvist (2014) report the use of organic control (cultural controls) in exploratory innovation while in the cost-leadership and differentiation firms, Dropulic (2013) reveals evidence that strategy contributed significantly to the choice of MCS design.

King, Clarkson and Wallace (2010) argue, based on their literature review, that organization size reflects two dimensions; complexity and availability of resources. Mintzberg (1994) opines that complexity and availability of resources increase with size. Lawrence and Lorsch (1967) cited in King *et al.* (2010) argued that small single business organizations are largely associated with the use of social cultural control mechanisms (Direct supervision and oral communication) while large business organizations tend to use more formal control as a consequence to increase complexity associated with a large number of employees. In terms of availability of resources, large organizations are found to be better positioned in the investment of resources for management control practices. Consistent with the foregoing argument, McMahon (2001) reveals in his study that size influences the acquisition and preparation of accounting information. Further evidence such as Davila and Foster (2007) also show that size influences the decision to adopt a formal form of control such as budget. However, Chenhall (2003) observes that few MC studies use size as contextual variables as most MCS studies relatively focus on large business.

2.3.4.3 Studies on Nigeria

In Nigeria, Ajibolade (2013) empirically shows how firm's generic contexts of perceived environmental uncertainty and technology complexity moderated the relationship between management accounting techniques, measured in term of level of sophistication, and performance. Results of Correlation and moderated regression analysis of data collected from 144 manufacturing listed firms affirmed that level of sophistication in management accounting design positively impact on performance through the moderating influence of PEU. However, Technology complexity was reported not to have significant moderating effect. It can also be argued that this study failed to show how MAS are being used to achieve goal congruence which has been the focal point of studies on management accounting and control system in recent time. In addition, the study did not reflect the items that constitute the scales for PEU and technology complexity.

Similarly, Ogunsiji and Akanbi (2013) examine the main and interactive effect of PEU, Competitive intensity, strategic sensitivity, leadership unity on perceived organization performance. Findings reveal that independent variables were actually predictors of organization performance. It specifically established a positive relationship between PEU, strategic agility and performance. This study also suffers the weakness of narrow measure of PEU. The trend in the foregoing studies suggest positive moderating effect of PEU between management controls and performance which form the basis of one of the hypothesis in chapter one. However, there exist among the reviewed studies, divergent measure of PEU and management controls variables, and they are not adequately captured. Also the method of analysis is not robust enough to justify various findings and finally, nearly all the studies were carried out in developed economy. In fact a single study that adopted Path analysis reported contradictory findings.

Recent studies on management controls system have also examined firm size, age, sector, existence of management accounting department, affiliation to foreign entity, firm's strategy and cultures, advanced manufacturing technology and public-quotations status as contingency factors affecting the design, choice and practices of management controls system. Oyewo (2017) conducts a study on the influence of firm's size, age, sector, existence of management accounting department, affiliation to foreign entity and public-quotations status on the effectiveness of management accounting function. Evidences from the survey of 131 finance

officers affirmed that all these contingencies except affiliation to foreign entity, contribute to the effectiveness of management accounting functions. Similarly, Ogungbade, Olwenry and Oluoch (2017) show how competitive strategy, culture and advanced manufacturing technology influence the choice of management accounting practices of manufacturing companies in Nigeria. The analysed data collected from survey of 133 respondents established that firm's strategy, culture and advanced manufacturing technology have significant effect on choice of management accounting practices.

Few studies on the influence of institutional pressures on Management control practices can be sighted in the literatures. Ajibolade (2013) also conducted another study based on the argument of institutional and technical contingency theory. The author examines the extent to which technology complexity, decentralization, perceived environmental uncertainty (PEU), multinational affiliation and stock exchange listing influence the choice of management accounting design. The result of the survey study revealed that PEU, technology complexity and decentralization contributed significantly to choice of management accounting design and use, while institutional pressures or influences lower explanatory power to the choice and design of management accounting system In Nigeria. Anya (2015) also confirms the influence of institutional pressures on the design and use of MCS in post-merger organizations. The in-depth interview with other archival evidences revealed how CBN directives, competition, technological advancement, social and societal factors contributed to the institutionalization of controls as rules and routines in a post-merger Nigerian bank. In line with this trend, Ahmed & Mohammed (2017) in their conceptual analysis of Management Controls practice among Nigerian firm argue that many aspects of MCS are commonly adopted as consequences of the pressure from the business environment and thus lead to weak management control practices that are not in tandem with the firm strategic focus. They specifically called for empirical research in context of institutional theory. This call indicated the need to broaden knowledge on MCS practices in relation to institutional pressures.

2.4. Summary of findings and Gap Identified in the Literature

2.4.1 Summary of findings in the literature

Broadly speaking, the extant literatures have revealed that each component of control in a package studied in isolation has to a large extent impact positively on performance. On budget use and participative budgeting, Otley (1980); Merchant (1981); King, Clarson & Wallace (2010) and Radiah & Ida (2012); Mohammed & Abdullah (2013) and Mathew (2014) report positive impact on performance respectively. It has also been observed in the literature that hybrid performance measurement such as Balanced Scorecard (BSC) relate positively with performance (Lucianetti, 2010; Madsen *et al*, 2015). In reference to Reward and compensation as control component, Yao (1997); Sprinkle (2002); and Stephen & Maxwell (2014) affirm its positive relationship with performance. However, earlier research efforts on performance such as Tuttle & Burton (1999) and Sprinkle (2000) report that monetary incentive as a form of reward and compensation did not impact positively on performance. On the administrative controls package, Positive performance effects are reported by Liao (2006); Davila & Foster (2007). Merchant and Van der Stede (2007) reveal positive performance impact of work rules, policies and procedures, and company code of conduct as component of Administrative control package. Recent studies of Shonin *et al.*, (2014), Kim *et al.*, (2014) and Gerorgiadis *et al.*, (2016) on staff selection and training as forms of personnel control elements of administrative control package also observe positive performance effect. Chehall *et al.*, (2008); Babnik *et al.*, (2013) and Trivellas *et al.*, (2015) are some of the reviewed studies whose findings indicate the positive effect of cultural controls package on performance.

It is obvious from the foregoing studies that positive relationship between control components and performance is consistently reported but most of the research approaches employed seem to assume non-existence of contextual factors that may moderate or intervene the relationship as postulated by contingency theory. These studies also seem to believe that “MCS are loosely coupled systems made up of largely independent components (Bedford, 2015). The fear of the problem of model under specification as expressed by Speckle (2001) is also inherent in all these studies.

Studies on more than one components of control at a time address the problems of reductionistic approach raised earlier but not completely. Alverson *et al* (2004); Ford *et al* (2005), Kleine *et al* (2013), Obinozie (2016); Lopez-valeinas *et al.* (2017); Samagio *et al.*, (2017) and Wald *et al* (2018) study more than one control elements at time and report highly significant performance effect. There are also studies (e.g. Aguaah, 2013; Ajarlis *et al.*, 2014, Scorch, 2014; Heinicke *et al.*, 2016; Bedford *et al.*, 2015; Malmi, *et al.* 2016; Bouten *et al.*, 2016; Abdullah, 2017; Auzair *et al.*, 2017) who have used substantial control components of management controls framework of Simon (1995), Merchant *et al.* (2007) and Malmi *et al.*, (2008) and to observe how broad control mechanisms impact either directly or indirectly on performance. Interestingly, Bedford *et al.*, (2015) and Bouten *et al.* (2016) are the only recent studies who have used the complete components of the most adjudged elaborate management controls framework to study management control practice of companies in Australia and Belgium respectively. Thus, study on management controls packages, to the extent of literature reviewed, seems to be non-existent in Nigeria.

Although, most of the research efforts on MCS discussed in the above paragraphs are contingency-based, using innovation, leadership style and strategy as contextual factors, specific studies of MCS that have used contingency factors in research questions of this study are Ezzamel (1990) in UK; Gul (1991) in Australia; Hogue (2005) in New Zealand, Agbejule (2005) in Finland, Ajibolade (2013), Ogunsiji *et al.*, (2013) both in Nigeria; Fuadah *et al.*, (2014) in Indonesia; El-Shishini (2017) in Bahraini; Haedr *et al.*, (2017) in Libya, and Huynin (2017) in Vietnam. They all report that PEU positively moderated the relationship between MCS and performance with exception of Hogue (2004) and Dropulic (2013) whose findings were negative moderating effects. Findings in these studies also indicate that the high PEU relate positively with broad scope MCS. However, almost all these studies measured PEU narrowly. The concept of PEU, argued by Chenhall (2003), relate to how organization perceived stability, predictability, turbulence of the environmental variables such as customers and supplier behaviours, market competition, regulatory agent behavior but the variable is mostly measured from a single perspective in almost all the studies excluding Bedford *et al* (2015).

Similarly, measurement weakness observed in PEU studies is also inherent in task uncertainty (TU) contingency studies of MCS, but Studies such as Dittilo (2004); Chong (2004);

Wolkinazari (2012); Hartman (2012); Bedford *et al.*, (2015) and Efendi *et al.*, (2016) empirically affirm that high level of task uncertainty relate with the less use of cybernetic or accounting-based control but positively with more use of administrative and cultural controls. The weakness mentioned earlier can be observed in Dittilo (2004); Hartman *et al.*, (2012) and Ajibolade (2013) whose TU measurement cover only knowledge complexity, job content and technology complexity respectively. Bedford *et al.*, (2015) in Australia and Buathong (2016) in Thailand, are only recent studies that have comprehensively measured TU in term task programmability and outcome measurability.

More importantly, nearly all the studies on contingency-based MCS reviewed adopt interaction approach by selectively focused on one or two components of MCS as variables of interest. Few studies like Kruis (2008), Hutzschenreuter (2009) and Bedford *et al* (2015) that employed system contingency-fit were conducted outside the shore of Nigeria. Hutzschenreuter (2009) and Bedford *et al.*,(2015) report the existence of management control configuration through the use of Euclidian Distance and Cluster Analysis while Hutzschenreuter (2009) employ Partial Least Square Structural Equation Model (PLS-SEM) to predict the performance effect of Contingency-MCS configuration.

Extant literature has revealed the evidences that MCS use is not only informed by rationality and functionality but also influence by institutional variables of coercive, mimetic and normative isomorphism. Dambin *et al.*, (2007) in France; Jazayeri *et al.*, (2011) in Srinlaka report the influence of Mimetic pressure on MCS practice, Hyvonem *et al.*, (2009); Ezzamel *et al.*, (2012); Kantola *et al.*,(2012); Kasumba (2013) and Ahren *et al.*, (2015) revealed evidences on coercive pressure on MCS practices while, Gamage *et al.*, (2017) observe the customer pressure as coercive isomorphism, on the adoption Certain MCS. The weakness of selecting one or two MCS components as variable of interest was also observed in this line of research.

2.4.2 Gaps Identified in the Literature

In view of the above, there are gaps in the contingency-based MCS research that still need to be filled. Conceptually, considerable number of MCS studies focus on one or more MCS components as a variable of interests which have been criticized on the ground of model under specification. This study attempts to fill this lacuna within Nigeria shore through the adoption of

elaborate MCS framework of Malmi *et al.*, (2008). To the best of the researcher knowledge, empirical work of this nature has not been carried in Nigeria. In addition, the broad measurement of variables will also be extended to PEU and TU contingency factors as there are also few studies whose measurement of these two factors covers all the perspective relating to the MCS practice. Specifically, PEU will be elaborately conceptualized and measured from the perspective of customer, supplier, competition, regulation and economy while TU will be operationalized on the basis of programmability task and measurability of outcome.

Concerning the method of data analysis commonly employed in Contingency-based MCS research, substantial number of recent studies outside Nigeria and Africa at large make use of Partial Least Square Structural Equation Model (PLS-SEM) to analyse moderating or mediating role of contextual factors between MCS and performance (e.g. Illias *et al.*, 2005; Kleine *et al.*, 2013; Fullerton *et al.*, 2013; Mahlendorf *et al.*, 2014; Verbeeten, 2015; Wald *et al.*, 2018) but in Nigeria, only few number of studies on MCS practice observe in the literature use correlation and multiple regression analysis (Ajibolade, 2013; Ogunsiji *et al.*, 2013). Given the robustness of PLS-SEM in the analysis of data obtained from latent variables, and the need to achieve consistency in term findings, this study attempt to also employ PLS -SEM to fill the statistical analysis gap observe in the research practice on MCS studies in Nigeria.

In addition, to the extent of literature searched and reviewed, no evidence of the adoption of mixed method design was observed among studies carried out in Nigeria shore. Given the behavioral nature of management control issues and to achieve consistency and comparability of findings across countries, mixed method design used in the thesis bridge the gap of mixed method research in Nigerian context.

Research efforts and evidences on management and accounting and controls systems are majorly available in relation to large organizations with few or no such evidences in SMEs. Few empirical evidences are on budgeting practices in SMEs (e.g. King *et al.*, 2010; Davila, 2005; Davila & Foster, 2007). This institutional gap was also filled in this thesis

Finally, there exist in the literature, the criticism that contingency-based MCS studies rely substantially on traditional functionality/rationality theories and neglect the possibility that MCS choice may informed by legitimacy or pressures from institution (Chenhall, 2003). In

developed economies, Much research efforts have responded to the shortcoming and reported the influence of coercive, mimetic and normative isomorphism/pressure on MCS choice and practice(e.g. Dambin *et al*, 2007; Jazayeri *et al.*, 2011; Ezzamel *et al.*, 2012; Kantola *et al*, 2012; Kasumba, 2013; Ahren *et al*, 2015 and Gamage *et al.*, 2017). More so, till today few or no evidences on empirical works in this area of thinking are available in Nigeria. Recently, Ahmed and Mohammed (2017) in their conceptual analysis of MCS practices among Nigerian firms, argued that much of the MCS choice and practice are informed by the three isomorphism which have consequently lead to weak performance. They therefore call for empirical research to confirm the argument. This study is also put forward to address this research gap in Nigeria.

2.5 Theoretical Framework

Within the focused unit of analysis-SMEs- there exists principal-agent relationship, manager can delegates task to his subordinate. In effect information asymmetry arises since the manager is not in a position to have all information relevant to task being executed by the subordinate. Hence employee is expected to display some kind of opportunistic behaviors, leading to agency problem in the form of adverse selection and moral hazard. However, the theory suggests solution for the two problems of principal-agent relationship, which in this thesis related to Manager-subordinate relationship. Monitoring devices, which are accounting controls mechanisms: budget, performance measurements, hybrid measurement and compensation-are expected to address the moral hazard problems as identified and suggested by the theory. Since the manager lack capacity to observe all subordinate actions, these control mechanisms can be used to influence subordinate to pursue organization objectives with little or no interaction by the managers. Consequently, agency theory predicts optimal organization performance through the reduction of overall agency costs.

In addition, non-accounting control mechanisms, like organization structures and policies and procedures, are also form of monitoring devise, if optimally used may address the agency problem of moral hazard. These non-accounting controls decrease the information asymmetry between the manager and subordinate. Based on the theory's prediction, the subordinate's cognitive and other limitations in the pursuit of organization objectives may be addressed through a well-designed policies and procedures and consequently, organization performance may be enhanced through the subordinate's ability to effectively implement organization goals.

The second agency problem of adverse selection can also be addressed through the use of a social-cultural control mechanism: extensive recruitments procedure. This control technique is assumed to lead to effective screening of subordinates or employees and encourage them to disclose their minimum qualification and capacity and thus reduce the information asymmetry inherent in principal-agent relationship. It may also lead to self –selection since the prospective employees whose qualification is below the minimum set standard may be discouraged to apply. Effectively, the overall agency costs relating to adverse selection may be reduced and thus enhanced firm performance.

The social control theory complement the suggested solution assumed in agency theory through the induction, training of employee and social events. Organisation core values are expected to be transmitted through the control mechanisms. Given the assumption of the theory, the problem of agent’s self-interest may be reduced and in effect goal congruence is achieved leading to enhanced organization performance.

The prediction of the two theories is however subject to optimal choice of monitoring devices (Management control System) base on various contingency factors. Indeed, Eisenhardt (1989) argue that if an organization change its control layout in relation to contingency parameters, it can experience an improved performance. In reference to the argument of Chenhall (2003) that there is no single contingency theory but varieties of theories explaining the organization choice and design of management principles, techniques and practices, justifies the adoption of the prediction of institutional theory as a complementary theoretical framework of this thesis. The institutional theory assumes that much of the management control techniques in use not out of needs but pressures imposed by the institutions. Thus, organization use of management controls may not necessarily solve agency problem if it is predicated by pressures.

Based on the conceptual discourse, salient predictions of the agency, contingency, social control and institutional theories and reviewed empirical evidences detailed in the preceding sections of this chapter, Figure 2.6.1(conceptual framework) depicts the relationships between Institutional pressures, internal contingencies and MCS use; relationship between MCS use and firm performance, and the effect of fit between internal contingencies and MCS on firm performance.

The first level in the framework depicts the influence of institutional pressures and internal contingencies on the choice of accounting and non-accounting control systems. in line with contingencies prediction, the level of internal contingencies (PEU, TU and AGE) should reflect the type of MCS in use for fit to occur or to prevent mismatch. However, the influence of institutional pressures may also dictate the choice and use of MCS implying that choice of MCS goes beyond rationality. This may goes a long way to affect appropriate MCS choice and indirectly contribute to problem of misfit or mismatch.

Conceptual Model

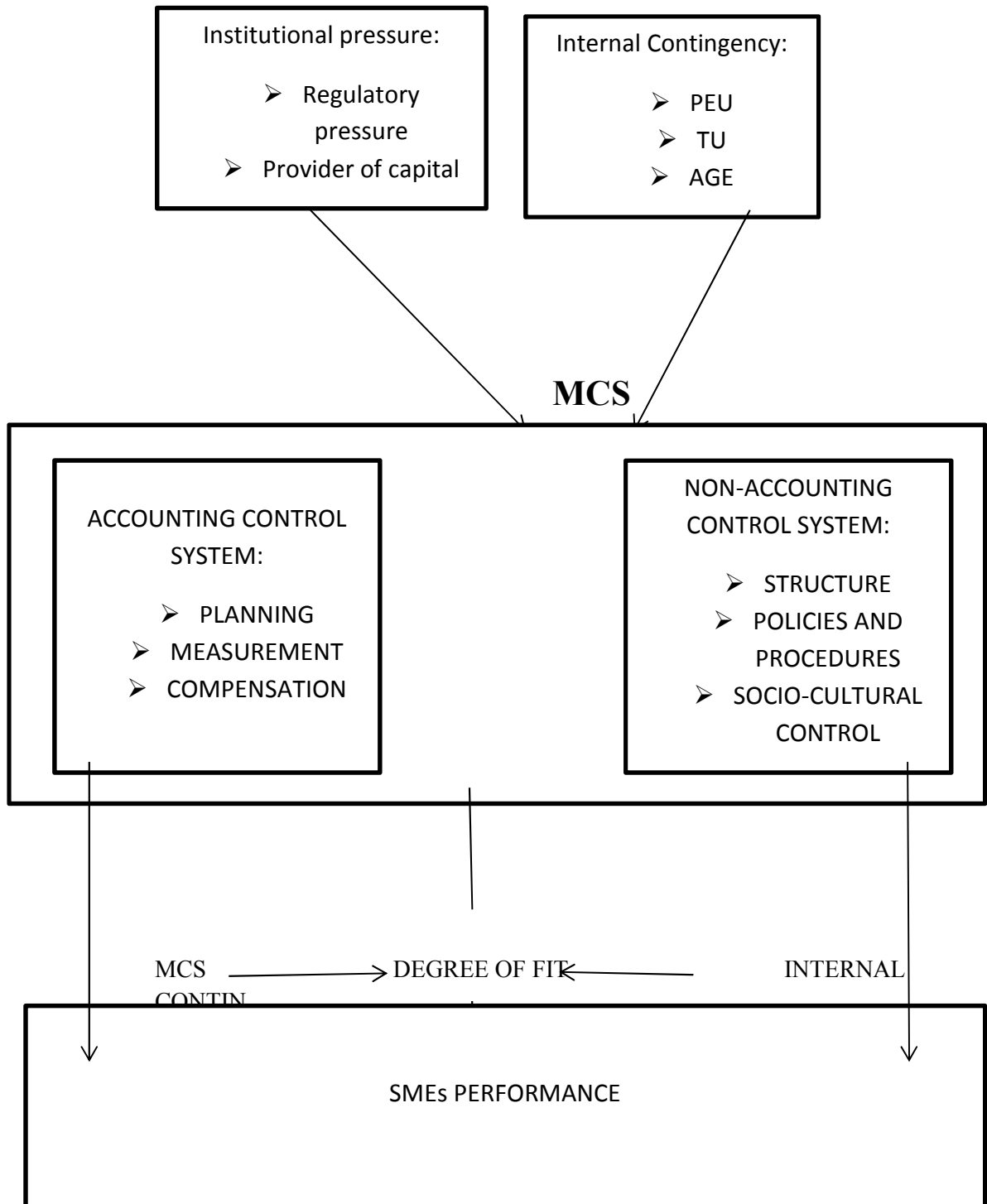


Figure 2.6.1 Conceptual Model on MCS, Firms Contingencies and Performance

Source: Author's Design (2019)

The second level of the model relates to the impact of MCS choice on performance. A firm with appropriate use of MCS, according to agency theory, will experience reduction in residual costs that may arise as a result of lack of goal congruence between managers and subordinate. This will effectively leads to enhanced performance. However, optimal performance is only achievable when there is a fit between MCS use and internal contingencies. This scenario is also depicted as the effect of degree of fit on performance in the second level of the model. The resulting hypotheses of this relationship earlier developed in chapter one were tested empirically in the subsequent chapters.

CHAPTER THREE

METHODOLOGY

This chapter explains the procedure that employed to collect, validate and analyse data to answer and test the research questions and test hypotheses raised in chapter one. The process includes the description of the philosophical underpinning that informs the choice of research method, research design and strategy. It also concerns with the delineation of sampling frame, determination of sample size, sampling technique, and specification of the study model, design of instrumentation and method of data analysis and measurement of variables

3.1 Research Philosophy and Strategy

This study generates answers to the research questions from the epistemological position of pragmatism, which entail the combination of positivism and interpretivism/constructivism in a single study (pragmatism). This choice is informed by the need to have both detailed and general understanding of the problems identified in this study. Accordingly, the nature of the research problem is assumed to be seen from both objective reality and individual creation. The combination of the two paradigms has been argued to be a superior way of addressing behavioural research problems. Indeed, Bryman and Bell (2007) are of the few that the connection of quantitative and qualitative research strategies to positivism and interpretivism respectively should not be seen as fixed and ineluctable.

Given the standpoint of the adopted epistemological considerations, mixed method research strategy was deployed. This strategy entails the integration of both quantitative and qualitative methods in a single project to collect data.

3.2 Research Design

The nature of the research questions reflects the intent of this study which is mainly to establish and measure the variation in performance of numerous Small and Medium Manufacturing Enterprises (SMMEs) as explained by management control practices, given the level of perceived internal contingencies. The study obtained that on the variables of interest through cross-sectional approach/design. Cross-sectional study pursues through both questionnaire and

interview has been affirmed to be flexible because it allows many questions relating to the topic of the research to be answered.

This study approximates observation overtime by asking respondents question to recall their past. Managers that have spent minimum of five years in the organization are selected as key informants for the study. The weakness of cross-sectional design like: problem mismatch between theory/concept and empirical operationalization and measurement error, and sampling bias were addressed through various techniques discussed in subsequent section of this chapter.

There are various approaches to mixed method research in a cross-sectional study of this nature. Hamersley (1996) identifies three approaches: triangulation/convergent, facilitation and complementarity. Given the purpose of this research, triangulation/convergent, use of qualitative research to corroborate quantitative research findings or vice versa, was employed. The approach enables the study to collect data that related to different element of management controls practices in term of value and material facts. Qualitative strategy was used to collect individual value that would corroborate material fact collected through quantitative strategy.

3.3 Population of the Study

This study provides evidences on the effect of Management Control Practices on the Performance of Manufacturing SMEs in Lagos State. Therefore; all manufacturing SMEs operating in this state are ideal research objects or population. Lagos State was chosen as the study area because it is a beehive of industrial activities with considerable number of manufacturing SMEs. However, manufacturing SMEs with number of employees between 50-200 and operating with Managing Director/General Manager, Managers responsible for Accounting, human resources and operation/Production constituted the study sampling frame for both quantitative and qualitative approach. These companies are expected to be using various management control techniques given their sizes in term of number of employees and nature of their operations. The list of manufacturing SMEs operating in the state was extracted from the Manufacturing Association of Nigeria (MAN) membership list (See Appendix three), while detailed information about the location of these companies was obtained from the information provided by Lagos Inland Revenue Service (LIRS). However, the LIRS required us to maintain confidentiality of these information after usage. To arrive at the actual list of sampling frame, a

preliminary 4-question survey on number of employees, years of operation, number of functional managers and asset base was sent to the primary population of 600 manufacturing SMEs in Lagos State and its environs. Analysis of the returned survey using the two criteria mentioned earlier resulted to sampling frame of 450 Manufacturing SMEs. However, Since both quantitative and qualitative data on the management control practices for the companies is needed through the key informants- four management staff (Managing Director/General Manager, Account Manager, Human Resources Manager and Production/operation Manager) mentioned earlier, the final population of the study was 1800(4*450) managers.

3.4 Sample Size and Sampling Selection Technique

3.4.1 Quantitative Strategy

The primary sampling units of this study are the manufacturing SMEs in the sampling frame while the secondary sampling units are four managers in each company. Therefore, determination of the required sample size for the quantitative aspect of the study entails a two-stage procedure. The first stage computed the sample size from the sampling frame of 450 manufacturing SMEs and this was done using Taro Yamani Formulae (Yamani, 1964) as shown in Figure 3.1:

Figure3.1:

$$n=N/[1+(Ne^2)]$$

Where:

n=required sample size

N=Study population or Sampling frame

e=error limit on the basis of confidence level

Based on 95% confidence level, the sample size is computed below:

$$n=450/[1+450(0.05)^2]$$

$$=212$$

The two hundreds and twelve manufacturing SMEs was selected using systematic random sampling to achieve high representation of the elements in the sampling frame and of course high degree of external validity. In the second stage, the four managers of the each randomly selected company were used, translating to eight hundred and forty eight managers (848) secondary and final sampling unit for this study.

3.4.2 Qualitative Strategy

For the qualitative data collection, the study adopted a purposeful sampling approach. Being the main designer and use of control mechanisms, 10 senior managers and 10 managing directors cut across the studied firms were selected and interviewed.

3.5 Research Instrument

3.5.1 Quantitative Data

For the quantitative aspect of the research, questionnaire was deployed to collect data. Bryman *et al.*, (2007) acknowledge the strength of questionnaire as a method of data collection to include: elimination of interviewer effect (such as ethnicity, gender and social background) that may bias the respondent answers and convenience for respondent in term of timing of completion. They however raised caution on the following areas when using questionnaire: greater risk of missing data, low response rate and literacy level of the respondent. All these shortcomings were addressed through the following strategies: a good covering letter explaining the reason behind the survey, adequate follow-up, and review of the questionnaire from Nigerian viewpoint and clear instruction and attractive layout.

In the pursuit of the following strategies, the questionnaire layout was divided into four sections: A, B, C, D and E. Section “A” details the company and respondent profiles. The questions on company profile included: age and size of the company in term of number of employees and assets value while questions on respondent profile focus on gender, experience, number of years with the company, educational qualification and department or unit the manager belong to. The response format was closed ended structure both in monosyllabic and continuum scale where appropriate.

Section B, C, D and E were designed to collect data on the variables in the research questions. In doing this, attentions were given to the conceptual domain of each variable as reviewed in conceptual framework section of chapter two. Quantitative data on management control constructs: planning, cybernetic/measurement, reward/compensation, structure, policies and procedures and sociological/cultural.- was elicited through measurement questions in section B. Specifically scale, measure on seven-point likert scale, developed by Bedford *et al.* (2015) with numerous measurements questions from previous studies was substantially adopted in this section since their conceptual domain on management controls was a product of Malmi *et al* (2008) MCS framework.

Section C and D focus on the measurement questions on contingency variables: Perceived Environmental Uncertainty (PEU), Task Uncertainty and Institutional Pressures respectively. Similarly, the Bedford *et al* (2015) scale on PEU and TU was used to achieve comparability of the study's findings with previous studies (Chenhall, 2003). The choice of the scale was informed by the high factor loading reported on each measurement questions underlying the variables. Given the conceptual domain of institutional pressures, Soobaroyen (2007) measurement questions was adapted to reflect institutional pressures variables in this study. In deed to the extent of literature reviewed; Soobaroyen's study is one of the view quantitative studies on Institution pressures.

Finally, section E contained questions on the outcome variable (Performance). Five items: financial performance, sales growth, market share and overall performance- based on reflective measurement model were used to capture firm performance. Preferably established s standards of these items were obtained from previous studies of Cao, Gedajlovic and Zhang (2009); Widener (2007) and Govindarajan (1986). Manager was asked to rate the company performance on the five items in comparison with competitors over five years.

To ensure that this instrument measures what it purports to measure and give consistent result (Cooper &Schindler, 2003), it was subjected to various test of validity and reliability. Nature and choice of the test are discussed in the next section.

3.5.2 Qualitative data

Semi-structured interview was employed to elicit views of respondents on the management control practices of the SMEs. For the purpose of this, a four-section specimen interview guide was attached to this thesis. Section A contains five questions relating to how accounting control systems are being used to achieve goal congruence as well as section B with eight questions. The interview guide also contains questions on the contingency factors and relationship between management control systems and performance. The recorded responses from interview were transcribed .

3.6 Validity and Reliability Test of the Instrument

3.6.1 Quantitative strategy

To ensure that the research instrument substantially and adequately reflect the meaning of the construct used in this study, the following forms of validity: content validity, criterion-related validity and construct validity were measured using expert evaluation, correlation analysis and factor analysis respectively. For expert evaluation, the study used expert from among academics and the practitioners with experience in management control systems.

In order to obtain stable and similar results under consistent condition, perspective of reliability in term of stability and internal consistency was measured using test –retest approach and Cronbach’s alpha respectively.

3.6.2 Qualitative Strategy

In order to achieve validity of data in term of accuracy in the account of the interviewees’ responses, the transcribed qualitative data and the audio content were given to experts with deep knowledge about management control practices o SMMEs. All observations were considered before the final production of the transcribed data for analysis. In addition, the transcribed data were sent to the participants/respondents for check in order to confirm whether or not the transcript reflect their responses and experiences.

Since the qualitative responses were analysed text by text (narrative analysis) to form a common theme or pattern of agreement or consensus among respondents, the issue of reliability constitutes no threat to the research findings (Creswell & Clark, 2011)

3.7 Models Specification based on Quantitative Strategy

To assess the relationship posited in this study's hypotheses, King *et al.*, (2010) and Bedford's (2015) models on the contingency factors influencing budgeting practices, model on the effect of fit between budgeting and contingency factors on firm performance and performance effect of MCS respectively were adapted. Decision to adapt these models was informed by the arguments of agency theory, contingency theory and institutional theory (earlier discussed in chapter two) with predictions that an effective MCS will reduce agency cost but only lead to improved performance, if there is no mismatch between contingency factors and MCS.

3.7.1 Model on the relationship between Contingency Factor and MCS

This model, according to King *et al.*, (2010), appeals to contingency-based research to identify factors argued to drive to decisions to engage in budgeting practices. This argument is similar to this study's theoretical framework relating to contingency theory. However, the prediction of institutional theory was integrated into this model to capture the argument that design and use of MCS may also be influenced by institutional pressures. The basic model is stated as follows:

$$BUDG = \beta_0 + \beta_1 InSIZE_i + \beta_2 STRUC_i + \beta_3 STRAT_i + \beta_4 PEU_i + \dots e_i \dots 3.1$$

Where:

BUDG= Budgeting practices of the firm

Insize= Size of the firm

STRUC= organization Structure

PEU=Manager's level of Perceived Environmental Uncertainty

TYPE=Practice type

The model was adapted as follows:

Model 1a: Relationship between Accounting Controls System and Institutional Pressures:

$$ACCS = \beta_0 + \beta_1 REGP_i + \beta_2 ASSOCP_i + \beta_3 PCP_i + \dots e_i \dots 3.2$$

Where:

ACCS= Firm's accounting control system

REGP=Regulatory pressures experienced by the firms

ASSOCP=Association Pressures perceived by firm

PCP=Provider of capital pressures on the firm

β_0 =constant

$\beta_1, \beta_2, \beta_3$ =regression coefficients/intercept

e_i =error terms

The a-priori expectation of the model is a positive relationship between ACCS, dependent variable and independent variables. i.e. $\beta_1, \beta_2, \text{ and } \beta_3 > 0$

Model 1b: Relationship Between Non-Accounting Controls System and Institutional Pressures:

$$NACCS = \beta_0 + \beta_1 REGP_i + \beta_2 ASSOCP_i + \beta_3 PCP_i + \dots e_i \dots 3.3$$

Where: NACCS= Firm's non-accounting control system

REGP=Regulatory pressures experienced by the firms

ASSOCP=Association Pressures perceived by firm

PCP=Provider of capital pressures on the fir

β_0 =constant

$\beta_1, \beta_2, \beta_3$ =regression coefficients

e_i =error terms

The a-priori expectation of the model is a positive relationship between NACCS, dependent variable and independent variables. i.e. $\beta_1, \beta_2, \text{ and } \beta_3 > 0$

Model 2a: Relationship Between Accounting Controls System and Internal Contingencies:

$$ACCS = \beta_0 + \beta_1 PEU_i + \beta_2 TU_i + \beta_3 AGE_i + \dots e_i \dots \dots \dots 3.4$$

Where:

ACCS=Firm's accounting control system

PEU=Manager's Perceived level environmental uncertainty

TU=Subordinate's Task uncertainty

AGE=Age of firms

β_0 =constant

$\beta_1, \beta_2, \beta_3$ =regression coefficients

e_i =error terms

The a-priori expectation of the model is a negative relationship expected between ACCS, dependent variable and independent variables. i.e. $\beta_1, \beta_2, \text{ and } \beta_3 > 0$

Model 2b: Relationship Between Non-Accounting Controls System and Internal Contingencies:

$$NACCS = \beta_0 + \beta_1 PEU_i + \beta_2 TU_i + \beta_3 AGE_i + \dots e_i \dots \dots \dots 3.5$$

Where:

NACCS=Accounting control system

PEU=Manager's Perceived level environmental uncertainty

TU=Subordinate's Task uncertainty

AGE=Age of firms

β_0 =constant

$\beta_1, \beta_2, \beta_3$ = regression coefficients

e_i = error terms

The a-priori expectation of the model is a negative relationship between NACCS, dependent variable and independent variables. i.e. $\beta_1, \beta_2, \text{ and } \beta_3 > 0$

3.7.2 Model on the Effect of fit between Accounting Controls System/Non-Accounting and Internal Contingencies on SMEs Performance

This model, according to King *et al.*, (2010), also appeals to contingency-based research argument that business that fails to achieve best “fit,” yet continues to survive but at a lower level of performance. This argument thus requires evidence of association between fit and performance which is the objective of this model. Fit in this model is measured using the residual (e) in equation (4) and (5), implying that the degree of lack of fit is a function of the value of the residual. The model is stated as follows:

Model 3: Effect of fit between accounting controls system/non-accounting and internal contingencies on SMEs performance

$$\text{PERF} = \beta_0 + \beta_1 \text{FIT} + e_i \dots \dots \dots 3.6$$

Where:

PERF = Firm performance

Fit = degree of alignment between accounting controls system/non-accounting controls system and internal contingencies

e_i = error terms

The a-priori expectation of the model is a positive relationship between ACCS, dependent variable and independent variables. i.e. $\beta_1 > 0$

3.7.3 Model on the effect of MCS (Accounting and Non-accounting control system) on firm performance

Although, Bedford (2015) assess the association between Management control systems and firm performance of exploratory and exploitation firm, the model is similar to this thesis’s argument, as predicted by agency theory that MCS practice reduce agency cost and thus lead to improved performance. The basic model is stated as follows:

$$PERF = \beta_0 + \beta_1 \text{Diag}_i + \beta_2 \text{Int}_i + \beta_3 \text{Bound}_i + \beta_4 \text{Belief}_i + \beta_5 \text{Diag} * \text{Bound}_i + \beta_6 \text{Int} * \text{belief}_i + e_i \dots\dots\dots 3.7$$

The model is adapted as follows:

Model 4: Effect of MCS (Accounting and Non-accounting control system) on firm performance

$$PERF = \beta_0 + \beta_1 \text{PLAN}_i + \beta_2 \text{MES}_i + \beta_3 \text{COMP}_i + \beta_4 \text{STRUC}_i + \beta_5 \text{POP}_i + \beta_6 \text{SOCU}_i + e_i \dots\dots\dots 3.8$$

Where:

PERF=firm performance/MCS effectiveness

PLAN= Firm’s planning control

MES=Firm’s measurement Control

COMP=Firm’s compensation Control

STRUC= organization structure

POP=Firm’s policies and Procedures

SOCU=Firm’s socio-cultural control

β_0 =constant

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8$ =Regression coefficient

e_i =error terms

The a-priori expectation of the model is a positive relationship MCS dependent variable and independent variables .i.e. $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8 > 0$

3.8 Definition and Measurement of variables

3.8.1 Definition of Variables

Based on the conceptual domain of the variables in the research questions as reviewed in chapter two of this thesis, their working definitions are given as follows

3.8.1.1 Management Control Constructs

Planning was measured from two dimensions of Mode: development of the long-term ends and means of the firm – ad-hoc, adaptive and emergent, to formalised, deterministic and deliberate (Brews & Hunt, 1999; Mintzberg, 1994); Participation: Involvement of subordinates in strategic planning processes (Ketokivi & Castaner, 2004; Shields & Young, 1993)

Measurement is viewed from four dimensions of Diagnostic: Monitoring activity through deviations from preset standards of performance (Simons, 1995); Interactive: Regular involvement in subordinate activities by management to encourage debate, creative behaviours and address strategic uncertainties (Bisbe *et al.*, 2007; Simons, 1995); Cost Control: Financial performance measures of cost efficiency and effectiveness (Kober *et al.*, 2007; Simons, 1987); Measure Diversity: Broad scope and non-financial performance measures (Henri, 2006; *Ittner et al.*, 2003)

Compensation was captured from three perspectives. Performance Pay: Performance-contingent rewards and incentives (Fisher, 1995; Shields & Young, 1993); Subjective/Objective: Method of determining individual compensation – subjective to objective (Fisher, 1995; Govindarajan & Gupta, 1985); Short/Long Term: Time horizon used for individual compensation – short to long term (Fisher, 1995; Govindarajan & Gupta, 1985).

Structure is operationalized through three dimension of Decentralization: Locus of authority – centralised to decentralised (Abernethy *et al.*, 2004; Gordon & Narayanan, 1984); Communication: Nature, direction and content of communication patterns – mechanistic to organic (Burns & Stalker, 1961; Chenhall & Morris, 1995); Integrative Liaison Devices:

Horizontal structural arrangements overlaying traditional functional structures (Abernethy & Lillis, 1995; Galbraith, 1973)

Policies and procedures were operationalised from four dimensions: Autonomy: Work active & Waterhouse, 1975; Kober *et al.*, 2007); Boundary Systems: Statements defining acceptable or unacceptable domains of activity (Simons, 1995); Standardization: Rules and procedures specifying the means of conducting work activities (Daft & Macintosh, 1984); Pre-action Reviews: Processes of scrutinization and authorization prior to activity performance (Merchant & Van der Stede, 2012; Speklé, 2001)

Socio-ideological control was captured using four dimensions of Selection: Search, Evaluation and Recruitment of employees according to a set of criteria, such as value alignment (Chatman, 1991; Harrison & Carroll, 1991); Socialization Processes whereby individuals come to appreciate prevailing norms and beliefs in the firm (Chatman, 1991; Harrison & Carroll, 1991); Belief Systems :Statements communicating the basic values and premises for action of the firm (Schein, 2004; Simons, 1995); Social Control: Reliance on shared values, norms and beliefs to direct work activities (Ouchi,1979; Schein, 2004).

3.8.1.2 Performance

Performance was operationalised from two subjective dimensions: Financial and Non-financial performance: extent to which firm is significantly below or above average relative to competitor in the areas of profit, sales growth, market share (Bedford, 2015), MCS effectiveness: extent to which the control mechanisms motivate, coordinate, monitor and support subordinate in the pursuit of organization assignment (Kruis, 2008).The subjective measure of performance data has been argued in the literature to be well established and more preferable when there is potential accounting difference reports (King *et al.*, 2010). Miller and Cardinal (1994) also gave argument in support of perceptual performance data as *‘It may be that informant data, which individual typically give under conditions of promised anonymity for their firms, basically reflect true performance, but archival data to a substantial degree reflect public relations, tax and other extraneous considerations that create noise in data.*

3.8.1.3 Contingency Variables

Contingency variables used in this study include:

Task Uncertainty is defined from two dimensions Outcome Measurability: Extent to which outcomes of subordinate activity can be validly and reliably captured in quantitative standards of performance (Eisenhardt, 1985; Ouchi, 1977); Task Programmability: Extent to which subordinates actions required to achieve an objective are known and visible to top management (Eisenhardt, 1985; Ouchi, 1977)

Perceived Environmental Uncertainty is defined using four dimensions. Unpredictability: Inability to anticipate variations among elements of the environment and assess the effect of material changes on the organization (Child, 1972; Dess & Beard, 1984; Miller & Friesen, 1983); Turbulence : Rate of change and instability in the environment (Dess & Beard, 1984; Mintzberg, 1979); Complexity: Range and diversity of environmental factors relevant to firm operations (Child, 1972; Dess & Beard, 1984); Hostility: Degree of threat from competitors for market demand, necessary resources and opportunities for growth (Child, 1972; Khandwalla, 1973; Miller & Friesen, 1983)

Age is defined from the dimensions of Maturity or old versus young Leit and Carvalhal (2016); Hui, Radzi, Enatabadi, Kasim & Radu (2013).

3.8.2 Measurement of Variables

Based on the above definitions, the description of how the variables will be measured is given in the table 3.7.2

Table 3.7.2: Measurement of Variable

Type of Variable	Variables Name & (Symbol)	Measurement	Sources	A-prior expectation
Dependent Performance	Perceived Financial and non-financial performance (PERF)	This is measure through five items of financial and non-financial performance indicators: financial performance, sales growth, relative market shares.	Bedford (2015)	
	MCS effectiveness (PERF)	This is measure using 7 items reflecting the MCS effectiveness in supporting, evaluating guiding and motivating employees or subordinate in the achievement of organization goals.	Kruis (2008)	
Dependent	Accounting Control System (ACCS)	Measure as a composite or summation of Planning, measurement and compensation control techniques	Malmi & Brown (2008)	
Dependent	Non-accounting Control System (NACCS)	Measure as a composite or summation of organization structures, Policies and Procedures and Socio-cultural Control	Malmi and Brown (2008)	
Independent: Management Control System (MCS)	Planning (PLAN)	Two sub-construct: <i>strategic planning</i> and <i>planning participation</i> . The formal will be measured use five items reflecting process of strategic planning in term of formal or informal using seven-point likert scale, while <i>planning participation</i> will be measure using single item reflecting level of participation	For strategic planning: Brews and Hunt (1999); Convin <i>et al</i> (2001) For Planning participation: Shield & Young (1993)	+
	Cybernetic/measurement (MES)	Four sub-construct: <i>Diagnostic control</i> , <i>interactive control</i> , <i>cost control</i> and <i>measure of diversity</i> . The first sub-construct contains five items representing usage of accounting as a part of cybernetic control cycle. The second sub-construct contain five items showing the formative properties of how budget are being used as a communication tool to inspire subordinate. <i>Cost control</i> use three items to assess how accounting tools are being used to monitor all tasks. <i>Measure of diversity</i> is proxy through six items (Customer, Employee, Operational process, innovation, quality and social responsibility) reflecting dimension of subordinate performance	For diagnostic and interactive :Henri(2006);Widener (2007) and Bisbe and Otley (2004) For cost control: Simon (1987); Widener(2004) and Kober, Ng & Paul (2007). Henri (2006);Ittner, Larcker and Randall (2003) and Scott and Tiessen (1999)	+
	Compensation	Measure through three sub-constructs : <i>performance based</i>	For	

	(COMP)	<i>compensation, subjective/objective based compensation and short/long term based compensation</i> : The first sub-construct contain three items reflecting level at which compensation depend on performance. The second sub-construct use single item assesses emphasis on subjective or objective determination of compensation. The last item is also a single item relating to the level of emphasis on short or long term performance for subordinate compensation.	performance based: Chalos and O'Connor (2004) Shield and Young (1993). For subjective/objective based: Simon (1987) Bedford (2015)	+
	Structure (STRUC)	This is measured using three sub-constructs: <i>decentralization</i> with five item focusing on the level of influence subordinate has on decision right; <i>Communication</i> with four item measuring how mechanistic or organic is the communication process; and <i>integrative liaison devices</i> contain four items relating to various coordinating mechanisms.	For: decentralization : Khandwalla (1973); Gordon and Narayanan (1984). For communicatio: Convin <i>et al</i> (2001); Leifer and Huber (1977); Chenhall & Morris (1995) Integrative Liaison: Galbraith (1973)	
	Policies & procedures (POP)	Proxy through four sub-constructs: <i>Autonomy</i> contains two items to reflect level independent conduct of activities by subordinate; <i>boundary systems</i> four items to measure level of restriction impose on subordinate activities; <i>standardization</i> reflect on three items measuring the extent to which activities, procedure and process are standardized; <i>pre-action review</i> is measured using two items to reflect how tight are the application of the pre-view on action undertaken by subordinate.	For autonomy: Kober et al (2007) and Ito and Peterson (1986). For Boundary system: Widener (2007) For standardization :Abernethy and Lillis (1995);Gerdin,2005) For Pre-action review: Merchant and Van der Stede (2012)	+
	Socio-cultural (SOCU)	Proxy with four sub-constructs: <i>Selection</i> reflects through two items measuring how extensive is the selection process of employees; <i>socialization</i> contain three items representing the extent to which training, social events and mentoring to enhance subordinate performance ; <i>Belief system</i> contain four items reflecting the extent to which organization values, puporse and direction are codified and communicated; <i>Social control</i> use four item measuring the extent to which organization culture are entrenched.	For selection: Snell (1992) and Widener (2004) For socialization: Chatman (1991);Harrison and Carroll	+

			(1991) For Belief system: Simon (1995); Widener (2007) For social, control: Ouchi(1979) and Schein (2004)	
Independent: Contingency Factors	Perceived Level of Environmental Uncertainty (PEU)	Proxy with three sub-constructs: <i>Unpredictability, Turbulence and hostility</i> . The first sub-construct uses for five items to measure level of predictability of the environment concerning customer level of demand, market for key inputs from suppliers, competitors, technology and economic or regulatory. The second sub-construct: turbulence reflects PEU in term of the changes in the following: customers, supplier, customer, competitor and regulation material on the business. The third items: hostility measures PEU through three items reflecting dimension of competition, resources and strategic opportunities	For unpredictability: Doty, Glick and Huber (1993), Godon <i>et al</i> (1984) For turbulence: Doty <i>et al</i> (1993) For hostility: Tan and Litschert (1994); Gastrongiovani (1991); Miller and Friesen (1983)	+
	<u>Subordinate's task uncertainty</u> (TU)	This is measured through two sub-constructs: <i>Outcome measurability and task programmability</i> . Three items are used to measure how measurable is the subordinate performance while three items for how visible are the action of subordinate take to achieve result.	For both sub-constructs: Snell (1992)	-/+
	<u>Firm's Age</u> (AGE)	This is measured in term of numbers of year the firms has been in existence in manufacturing activities. It further classified to two dimension: Young (1-10 years) and old or matured firm (11 years and above).	Leit & Carvalho (2016); Hui <i>et al.</i> (2013)	-/+
Independent: Institutional pressure	Regulatory Pressure (REGP)	This is measure through a measure question on the extent to which regulatory requirement influence the choice and use of Management Control mechanisms	Soobaroyen (2007)	-/+
	Provider of capital Pressure (PCP)	This is measure through a measure question on the extent to which provider of capital (loan and trade creditor) influence the choice and use of Management Control mechanisms	Soobaroyen (2007)	+
	Association membership (ASSOCP)	This is measure through a measure question on the extent to which association membership influence the choice and use of Management Control mechanisms	Soobaroyen (2007)	+
	"Fit" (FIT)	This is measure using the model residual of equation 3 and 4	King, Clarckson and Wallace (2010)	+
				-

Source: Author's extract from previous studies, 2019.

3.9 Method of Data Analysis

3.9.1 Quantitative Analysis

Since the main objective of the thesis was to study the different effects of management controls mechanism on performance and confirm or reject the prediction of theories and evidences of previous studies both descriptive and inferential statistical techniques were employed.

Descriptive statistics such as mode and mean were used to discover pattern on both companies and management profiles and evaluate responses to each measurement question. Other preliminary analyses that were conducted through other statistical techniques are: Pair-wise correlation, Variance Inflation Factor (VIF) and Crobanch's Alpha. Pair-wise correlation is concerned with the test of the existence of multi-collinearity among independent variables but Variance Inflation Factor (VIF) was employed to test the significance of non-existence of multi-collinearity. The Crobanch Alpha was used for the test of internal consistence that indicates the reliability of the measuring instrument.

The inferential statistical techniques were employed to analyze data that provided answers to the research questions and lead to the acceptance or rejection of research hypothesis. Specifically, regression analysis and Partial Least Square-Structural Equation Models-s (PLS-SEM) was employed to provide evidences for the research questions. These are appropriate since the nature of data collected is interval scale, meeting one of the requirements of parametric statistical techniques.

The structural Equation Model (SEM) is a second-generation multivariate data analysis that examine the relationship among variables under consideration (Haenlein & Kaplan, 2004). It has been adjudged to be useful for the analysis of unobservable, hard-to-measure, latent variables that characterized most of the variables of interest in social and management sciences research. SEM allows integration of both latent and manifest variable through the specification of two models: Structural model and inner model. The model consists of all latent variables and their relationship, while the latter connect the latent to the observable indicators. The main idea behind SEM is the representation of the relationship between the constructs through the structural model. SEM derives its name through the combination of structural and related measurement

model. In other word, SEM “defines the overall relationship between theoretical constructs and the required manifest indicators to measure them”(Hutzschenreuter,2009).

Marketing Bulletin (2003) listed three different approaches to SEM: Covariance-Based SEM (CB-SEM), Partial least Square SEM (PLS-SEM) and component-based SEM also known as Generalised Structural Component Analysis (GSCA). The first approach, according to the bulletin, is useful or appropriate when the sample size is large, data is normally distributed and the model is correctly specified. However in reality, it is usually difficult to reliably find data that substantially exhibits these requirements. PLS-SEM, the second approach, is a viable alternative when sample size is small, data is not necessarily normally distributed and predictive accuracy is essential. These three features of PLS-SEM endear this thesis to choose it as an appropriate estimation technique. The third approach (GSCA) can be used when there are existence nonlinear latent variables and overall of the model fit is required.

PLS-SEM intends to maximize the amount of explained variance of dependent variable. It uses the re-sampling method (bootstrapping) to test for the quality of overall model. Like other multivariate statistical analysis, it is an estimation technique which perform its function through four steps iterative process (Hutzschenreuter, 2009).The first step is used to estimate weight, the second step entail approximation of outer model, the third step carries out estimation of path coefficient and the last step gives the estimation of inner model.

The choice of PLS-SEM was informed by the characteristics of the variables of interest in this study. The management control mechanisms are substantially unobservable, latent variables, the sample size of 212 is relatively small, normality of the data involve cannot be reliably perfect in reality and the need to achieve accurate prediction.

The summary of statistical techniques used for each research question is presented in table: 3.9

3.9.1.1 Estimation Technique of the Independent Variables Parameters

This study estimated the population regression function (PRF) through the information collected from the sample. In other word, PRF was estimated by Sample Regression Function (SRF). Method of Ordinary Least Squares (OLS) was employed to obtain the parameters of SRF because its statistical efficiency (Gujarati &Porter, 2010).The OLS allows us to find a regression

line of best fit, which keeps errors to a minimum. It employs the criterion of minimizing the total squared errors of estimate (Cooper & Schindler, 2003). Gujarati & Porter, 2010) stated the OLS principle algebraically as follow:

$$\text{Minimize } \sum e_i^2 = \sum (Y - \bar{Y})^2$$

Where:

$\sum e_i^2$ denotes the residual sum of squares

Y stands for actual PRF

\bar{Y} represents SRF

Regression coefficients: $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7$ and β_8 were used to find least square solution of the specified model in equation 1,2,3 and 4 accordingly. The Best Linear Unbiased Estimate (BLUE) property of the OLS informed its choice in this thesis .However, the assumptions of normality, linearity of parameters, non-existence of exact collinearity between independent variables for multiple regression analysis were tested before the application OLS method.

3.9.2 Qualitative Analysis

Since this study used qualitative finding to corroborate quantitative finding, narrative analysis was employed as a data analysis technique to obtain results from the interview conducted. It entails text by text analysis of qualitative data with the main aim of establishing consensus among respondents to form a common theme or meaning to phenomenon in question (Creswell *et al.*, 2011) Although, other techniques such as analytical induction and grounded theory are identified in the literature, Bryman *et al.*, (2007) affirmed that narrative analytical technique is more appropriate for triangulation approach to mixed method research strategy, and that the technique has become popular among researchers in the field of management science.

Table 3.9: Research Questions and Statistical Analysis

S/N	Research Questions	Statistical Techniques	Estimation Technique
I	How do institutional pressures influence usage level of accounting controls systems in manufacturing SMEs in Lagos State?	Regression and narrative analysis	Ordinary least square(OLS)
ii	What is degree of institutional pressures' influence on the usage level of non-accounting controls systems in manufacturing SMEs in Lagos State?	Regression and narrative analysis	OLS
iii	What is nature of relationship between accounting controls system and internal firm contingencies?	Regression and narrative analysis	OLS
iv	How do internal firm contingencies influence non-accounting controls system in manufacturing SMEs?	Regression and narrative analysis	OLS
vi	How does accounting control systems influence the performance of manufacturing SMEs?	PLS-SEM and narrative analysis	OLS
Vi	To what extent do non-accounting control systems affect the performance of Manufacturing SMEs	PLS-SEM and narrative analysis	OLS
vii	How does degree of fit between accounting controls system and internal contingencies influence performance in manufacturing SMEs?	Regression analysis	OLS
viii	To what extent is degree of fit between non-accounting controls system and internal contingencies influence performance?	Regression analysis	OLS

CHAPTER FOUR RESULTS AND DISCUSSION OF FINDINGS

This chapter presents the empirical results of the study in the following order: analysis of the data sample in term of response rate and evaluation of missing data, descriptive statistics of the sampled companies, informant respondents and measurement questions of the scale are presented in the first section. The second section deals with the preliminary analysis of data in term of normality test and pair-wise correlation while the third and the last sections are dedicated to testing of hypothesis and discussion of findings respectively.

4.1 Assessment of the Data Sample

4.1.1 Response Rates of quantitative strategy

In chapter three, discussions were made as to the nature of the potential respondents used from the research sites. Accordingly, 848 managers of the companies were proposed to be used as the respondent informants for the study and questionnaires were distributed via both on-line and physical medium. However, not all the distributed instruments were returned. As shown in table 4.1, 320 questionnaires were returned out of which 262 are valid for the final analysis. This represents 30% response rates, though relatively low but sufficient in comparison with the previous MCS studies such as Widener (2007), Lee and Pennings (2001), Spanos and Lioukas (2001). Indeed, Van der Stede, Mark, Young and Xiaoling (2006) argue that more attention should be paid to non-response bias because the results of a study can still be generalized with relatively low response rate with little or no response bias. Our thorough checking of the data revealed immaterial response bias.

Table 4.1: Response Rate Statistics

Description	Frequency	Percentage
Distributed Questionnaires	848	100
Returned Questionnaires	320	38
Valid Questionnaires	262	30
Response rate		30%

Source: Author's Computation, 2019

4.1.2 Response Rates of qualitative strategy

As indicated in section 3.4.2 in chapter three, ten senior managers and ten managing directors were selected for interview, only 13 granted permission for the exercise. These responses constitute 65% rate as shown in table 4.1.1. The rate was to a large extent adequate, since the purpose of qualitative strategy in this study is to corroborate quantitative findings (Creswell, *et al.*, 2011).

Table 4.1.1: Response Rate Statistics

Description	Frequency	Percentage
Number Scheduled for interview	20	100
Number Interviewed	13	65
Number not interviewed	7	35

Source: Author's Computation (2019)

4.1.3 Evaluation and Treatment of Missing data

In the conduct of field research, missing values problem is a common place because it is difficult to get respondents to answers all items in the scale. This study addresses the problem through the use of singular imputation technique

Table 4.2: Missing Value Statistics

	Result Variable	N of Replaced Missing Values	Case Number of Non-Missing Values		N of Valid Cases	Creating Function
			First	Last		
1	Qualificatn_1	4	1	261	261	SMEAN(Qualificatn)
2	Cadre_1	2	1	261	261	SMEAN(Cadre)
3	MCC3_1	3	1	261	261	SMEAN(MCC3)
4	SNL1_1	2	1	261	261	SMEAN(SNL1)
5	PAU1_1	2	1	261	261	SMEAN(PAU1)
6	EUU2_1	2	1	261	261	SMEAN(EUU2)
7	ETU5_1	2	1	261	261	SMEAN(ETU5)
8	ECM2_1	2	1	261	261	SMEAN(ECM2)
9	EHS2_1	2	1	261	261	SMEAN(EHS2)
10	FNF5_1	1	1	261	261	SMEAN(FNF5)
11	RPR4_1	2	1	261	261	SMEAN(RPR4)
12	MMD3_1	1	1	261	261	SMEAN(MMD3)
13	MMD6_1	1	1	261	261	SMEAN(MMD6)
14	SNL1_2	2	1	261	261	SMEAN(SNL1)
15	SNL4_1	3	1	261	261	SMEAN(SNL4)

Source: Author's Computation (2019)

which entail the use of average value to estimate potential values (Bankhofer, 1995), generated in the seventh column in table 4.2. This technique, according to Bankhofer (1995), gives minimal bias. Consequently, the Structural Equation Model's requirement of data sets without missing value was met.

4.2 Descriptive Statistics of the Company and Respondent Profile

4.2.1 Company's Profile

Summary statistics of the sampled companies' characteristics in term of age, number of employees and assets values is presented in table 4.3. The distribution of the companies across age classes shows that 90.5% of the companies have been in existence for the period of six years above. This distribution pattern implies that majority of the companies are not infant but relatively experienced to initiate various forms of management control systems. The distribution in terms of employees also gives similar pattern to that of age. In essence, considerable numbers of the sampled companies have numbers of employees that required a systematic control system.

Table 4.3: Company's Profile

S/N	Description	Frequency	Percentage
1	Age		
	0 – 5yrs	25	9.5
	6 – 10yrs	64	24.4
	11 – 15yrs	59	22.5
	16 – 20yrs	68	26.0
	21yrs and above	46	17.6
2	Number of Employee		
	1 – 50 employees	25	9.5
	51 – 100 employees	79	30.3
	101 – 150 employees	64	24.4
	151 – 200 employees	64	24.4
	201 and above employees	30	11.5
3	Company's Asset		
	10 – 20m	61	23.3
	21 – 40m	61	23.3
	41 – 60m	55	21.0
	61 – 80m	52	19.8
	81m and above	33	12.6

Source: Author's Computation (2019)

Although the distribution of the sampled companies in term of assets values looks slightly different, nearly 76% of these companies operate with assets values ranging from 21million naira to 81 million naira and above. Expectedly, optimal utilization of these assets entails management control systems design that aligns with companies contingencies.

4.2.2 Respondents' Profile

Frequency distribution of the respondents profile in term of area of discipline, as shown in table 4.3, indicates that 43.5% are in the area of business management, 25.2 % of the managers studied economics while 19.8% possess qualification in accounting and finance and 6.5% and 5% for art and engineering respectively. This distribution pattern suggest a tendency of using more of non-accounting control systems since majority of the managers are not from accounting and finance discipline that may have inclination of using more formal or accounting control systems.

Table 4.3: Respondents/Managers Profile

S/N	Description	Frequency	Percentage
1	Discipline Accounting & Finance Bus Admin. Economics Art Science/Engineering	52 114 66 17 13	19.8 43.5 25.2 6.5 5.0
2	Qualification SSCE OND HND BSc 1 st Degree & Professional Qualification	8 48 5 161 40	3.1 18.3 1.9 61.5 15.3
3	Department Accounting & Finance Production Human Resources Sales Others	31 73 102 39 17	11.8 27.9 38.9 14.9 6.5
4	Working Experience with Company 0 – 5yrs 6 – 10yrs 11 – 15yrs 16 – 20yrs 21yrs and above	74 110 45 21 12	28.2 42.0 17.2 8.0 4.6
5	Cadre Managing Director General Manager Senior Manager Manager	10 69 127 56	3.8 26.3 48.4 21.5

Source: Author's Survey (2019)

In term of the qualification of the respondent, 78% of the respondents are graduates of University and Polytechnics. This implies that substantial number of the managers is literate with capacity and ability to comprehend the administered instruments as this has been reflected in the level of non-response bias and missing data discussed in section 4.1.2. Thus, any information supplied by the respondent group could be relied upon valid analysis and conclusion. Frequency distribution in term of working experiences indicates that substantial number of the respondents, nearly 72% have more than five years experiences about companies operation to provide reliable responses about the operation of management controls in practice. And all the sampled respondents are in the cadre of managers as revealed in table 4.3.

4.3 Descriptive Statistics of the indicators of the Variables

4.3.1 Descriptive statistics of all Measurement items for Management Controls Variables

The mean scores reflect some little difference on the items used to measure the planning variable but no mean scores are below 3.00 as shown in table 4.4, indicating planning is fairly used as management control techniques. The same pattern of distribution are observed for items in measurement control, as indicated in table 4.5 (i.e. no mean score below 3.00) but all the five items for diagnostic use of budget recorded between 3.02 to 3.13 as mean scores except one item with mean score of 4.08 suggesting the lower behavioral use of budget to identify critical area of operation. Also three out of the six items for sub-dimension of measurement control variables, measure of diversity in table 4.5 are of the mean scores ranging from 4.00 to 4.85 while the remaining half are of the 3.02 to 3.13 mean scores. Based on this pattern, it appears that budget and measure of diversity as sub-dimensions of measurement controls are not highly used as behavioral control devise but emphasis seem to be placed on cost control sub-dimension of measurement as the mean scores for the three items used to measure cost control are in the range 4.79 to 5.87.

Table 4.4: Planning

S/N	Items	Min	Max	Mean	S.D
1	How would you describe the strategic goals of your organization	1	7	4.73	1.329
2	How would you characterize the strategic plan of your organization	1	7	4.12	1.007
3	How closely is the strategic plan followed in your organization	1	7	3.82	1.006
4	How would you describe the process by which strategy develops in your organization	1	7	5.85	1.050
5	To what extent are subordinates involved in the strategic planning processes of the organization	1	7	3.92	1.71

Source: Author's Computation (2019)

Table 4.5: Measurement

S/N	Items	Min	Max	Mean	S.D
Diagnostic Control					
1	To what extent does management use budget to identify critical performance variables	1	7	4.08	.950
2	To what extent does management use budget to set targets for critical performance variables	1	7	3.02	.971
3	To what extent does management use budget to monitor progress towards critical performance target	1	7	3.13	.877
4	To what extent does management use budget to provide information to correct deviations from present performance targets	1	7	3.11	.901
5	To what extent does management use budget to review key areas of performance	1	7	3.04	.907
TIGHTNESS					
1	How flexible are subordinate performance targets once they have been set	1	7	3.82	.999
2	How frequently are subordinates consulted about performance target achievement	1	7	4.73	1.160
3	To what extent are written explanations for variances from target performance levels required from subordinates	1	7	3.89	.962
4	To what extent are subordinate evaluations predominantly based on achievement of performance targets	1	7	4.82	1.181
INTERACTIVE CONTROL					
1	To what extent does management use budget to provide a recurring and frequent agenda for	1	7	4.08	.931

	top management activities				
2	To what extent does management use budget to provide a recurring and frequent agenda for subordinate activities	1	7	5.23	.854
3	To what extent does management use budget to enable continual challenge and debate of underlying data, assumptions and action plans with subordinates and peers	1	7	3.05	.847
4	To what extent does management use budget to focus attention on strategic uncertainties	1	7	4.05	.931
5	To what extent does management use budget to encourage and facilitate dialogue and information sharing with subordinates	1	7	3.78	1.169
COST CONTROL					
1	Cost control systems monitor virtually all tasks in the organization	1	7	5.87	1.031
2	Organization operations are controlled by analyzing and reporting to top management variances between actual costs and standard or expected costs	1	7	4.90	1.123
3	To what extent are cost centers used in your organization	1	7	4.79	1.130
MEASURE OF DIVERSITY					
1	To what extent are measures related to customers used to evaluate subordinate performance	1	7	3.82	1.049
2	To what extent are measures related to employees used to evaluate subordinate performance	1	7	3.84	1.100
3	To what extent are measures related to operational process used to evaluate subordinate performance	1	7	4.85	1.055
4	To what extent are measures related to innovation used to evaluate subordinate performance	1	7	3.80	1.120
5	To what extent are measures related to quality used to evaluate subordinate performance	1	7	4.79	1.083
6	To what extent are measures related to social responsibility used to evaluate subordinate performance	1	7	4.73	1.133

Source: Author's Computation (2019)

Table 4.6: Compensation

S/N	Items	Min	Max	Mean	S.D
Performance Based					
1	Subordinates whose performance relative to targets is among the top 25% are given larger financial rewards than those given to managers among the bottom	1	7	5.58	1.121
2	Compensation contracts clearly specify how compensation is related to subordinate performance relative to performance targets	1	7	5.43	1.219
Subjective/Objective Based					
1	How flexible are subordinate performance targets once they have been set	1	7	5.88	1.100

Source: Author's Computation (2019)

On the other hand, mean scores responses to all items for Compensation as management control variable give a pattern that suggest high emphasis on the use of the variable as management control technique as recorded in table 4.6.

Table 4.7: Structure

S/N	Items	Min	Max	Mean	S.D
Decentralization					
1	Indicate the existence of influence your subordinate has on the development of new products or services	1	7	3.16	.890
2	Indicate the existence of influence your subordinate has on the hiring and firing of managerial personnel	1	7	3.17	.937
3	Indicate the existence of influence your subordinate has on the selection of large investments	1	7	4.11	1.026
4	Indicate the existence of influence your subordinate has on the resource allocation	1	7	4.97	1.077
5	Indicate the existence of influence your subordinate has on pricing decisions	1	7	5.90	1.080
Communication					
1	Indicate how control information is typically communicated in your organization	1	7	4.00	.941
2	Indicate the accessibility of operational information in your organization	1	7	4.79	.909
3	Indicate the content of work-related communication between top management and subordinates	1	7	4.89	1.050
Integrative Liaison					
1	To what extent are the activities between sub units in your organization coordinated through liaison personnel whose specific job is to coordinate the efforts of	1	7	5.91	1.059
2	To what extent are the activities between sub units in your organization coordinated through temporary task forces or committees set up to facilitate collaboration on specific projects	1	7	3.98	.901
3	To what extent are the activities between sub units in your organization coordinated through permanent cross-functional teams	1	7	4.06	.945
4	To what extent are the activities between sub units in your organization coordinated through matrix structures entailing multiple line of authority, multiple responsibility assignments and overlapping team membership	1	7	3.97	1.001

Source: Author's Computation (2019)

The distribution pattern for structure variable in table 4.7 reveal three sub-dimension with decentralization having 5 items recording mean scores responses ranging from 3.16 to 5.90 while the second sub-dimension, communication with three items gives mean scores of 4.00-4.89 and the third dimension integrative liaison with four items has mean scores ranging from 3.97 to 5.91. The summary observation for the structure variable appears to show relatively high level use of the variable to influence subordinate. Policy and procedures seem to reflect similar pattern to that of structure. It has four sub-dimensions: autonomy, boundary, standardization and pre-action review. The mean scores responses for autonomy with two items range from 4.72-4.94, boundary has mean scores within the range of 4.98-5.11 while standardization and pre-action review have mean scores three items and two items respectively have mean scores in the range of 3.89-4.99 and 4.02-5.06 in the same order. These results also indicate that, to a large extent, policy and procedures are in use as management control devise among sampled companies.

Table 4.8: Policy and Procedure

S/N	Items	Min	Max	Mean	S.D
Autonomy					
1	To what extent does subordinates conduct non-routine activities independent of top management involvement	1	7	4.72	.994
2	To what extent does subordinates have the freedom to create their own methods of getting work done if no standard procedures exists	1	7	4.94	.934
Boundary Systems					
1	To what extent are codes of conduct or similar statements relied upon to define appropriate behavior	1	7	5.01	.928
2	To what extent are there policies or guidelines that stipulate specific areas for, or limits on, opportunity search and experimentation	1	7	5.04	.964
3	To what extent does top management actively communicate risks and activities to be avoided by subordinates	1	7	4.98	.986
4	To what extent are sanctions and punishments applied to subordinates who engage in risks and activities outside organizational policy, irrespective of the outcome	1	7	5.11	.965
Standardization					

1	To what extent are the work activities of subordinates determined by standardized procedures or processes	1	7	4.99	.805
2	To what extent are the activities between sub units in your organization coordinated through pre-planning of activities between the sub units	1	7	3.89	1.014
3	To what extent are the activities between sub-units in your organization coordinated through standardized rules, programmes or procedures that are formally or informally understood between sub units	1	7	4.83	.915
Pre-action Review					
1	To what extent are formal pre-action reviews used to access projects undertaken by subordinates	1	7	5.06	.773
2	How detailed are the reports or plans required from subordinates before initiating specific projects	1	7	4.02	.893

Source: Author's Computation (2019)

Table 4.9: Socio-Cultural

S/N	Items	Min	Max	Mean	S.D
Selection					
1	How extensive is the recruitment and selection process	1	7	5.84	1.032
2	How much importance is placed on selecting managers who have attitudes and values aligned to the organization not just on technical competence	1	7	5.04	.905
Socialization					
1	To what extent are training and development processes used to reinforce organizations objectives, expectations and norms	1	7	4.90	.898
2	To what extent are social events and functions used to develop and maintain commitment to the organization	1	7	5.03	.936
3	To what extent are monitoring, orientation and induction programmes used to acclimatize new managers to acceptable behaviors, routines and norms	1	7	4.85	.911
Belief System					
1	To what extent are the values, purpose and direction of the organization codified in formal	1	7	4.71	.964

	documents				
2	To what extent does top management actively communicate core values to subordinates	1	7	5.03	.888
3	To what extent are formal statements of values used to create commitment to the long term vision of top management	1	7	4.16	.840
4	To what extent are formal statements of values used to motivate and guide subordinates in searching for new opportunities			3.98	.862
Social Control					
1	To what extent is there a sense of shared values, beliefs and expectations among employees	1	7	3.06	.888
2	To what extent is there a consensus among employees on organization objectives and direction	1	7	5.05	.919
3	To what extent are employees committed to the values and objectives outlined by top management	1	7	4.06	.923
4	To what extent does top management rely on the shared values and norms of employees to provide direction when faced with uncertainty	1	7	5.97	.881

Source: Author's Computation (2019)

For the socio-cultural control, the variable was sub-dimensionalised into four: selection, socialization, belief and social control. As shown in table 4.9, selection sub –dimension has two items with mean scores ranging from 5.04-5.84 in the case high emphasis on the use of selection. The socialization sub-dimension has mean scores ranging from 4.85-5.03 for the three items while the belief sub-dimension with four items has mean scores in the range of 3.98-5.03 and social control has four items with means response within the region of 3.06-3.97. The pattern of the mean scores for this variable also implies fairly high uses of the control technique.

4.3.2 Descriptive statistics of all measurement items for contingency variables and Firm Performance

The summary of the response rates on the contingency variables gives insight to how uncertain are the environment and task being carried out by subordinates, and level of pressures exert on the firm by relevant stakeholders. In relation to task uncertainty measured through two sub-dimensions: outcome measurability and task programmability with three measurement questions for each. The mean scores of the two sub-dimension are in the range of 3.79-4.27 and 4.08-5.14

with standard deviations less than one, as shown in table 4.10. It appears, with this summary, that outcome of the tasks carry out by subordinate are not highly measurable and the level at which subordinate tasks are programmable not very high.

Table 4.10: Task Uncertainty

S/N	Items	Min	Max	Mean	S.D
Outcome Measurability					
1	Standards of desirable performance for subordinates are well defined	1	7	4.27	.888
2	Results measured accurately depict how well subordinates have performed	1	7	3.79	.938
3	Top management have several sources of objective data available that indicate how well subordinates are performing	1	7	4.08	.849
Task Programmability					
1	The actions subordinates take to achieve results are visible to top management	1	7	4.16	.835
2	Effective and ineffective subordinates can be distinguished by observing the actions they take	1	7	4.08	.941
3	The relationship between the actions that subordinates take and the eventual outcomes are well known by top management	1	7	5.14	.837

Sources: Author's Computation (2019)

For the perceived environmental uncertainty presented in table 4.10, the study measured the variable using four sub-constructs: unpredictability, turbulence, complexity and hostility of the environment. The first sub-construct (unpredictability) has five measurement questions with mean scores in the region of 3.68-4.83 and standard deviations less than 1.5 while the second sub-dimension(turbulence) also have five measurement questions for which the response rate mean scores hovering around 3.03-4.94 and standard deviations also not greater than 1.5.The third and

Table 4.11: Perceived Environmental Uncertainty

S/N	Items	Min	Max	Mean	S.D
Unpredictability					
1	Over the past three years, how predictable have changes in customers actions been	1	7	3.73	.997
2	Over the past three years, how predictable have changes in suppliers actions been	1	7	4.77	.946
3	Over the past three years, how predictable have changes in competitors actions been	1	7	4.81	1.00
4	Over the past three years, how predictable have changes in technological actions been	1	7	3.68	1.015
5	Over the past three years, how predictable have changes in economic actions been	1	7	3.94	1.041
Turbulence					
1	Over the past three years, how many changes have occurred amongst customers that have had a negative impact on the nature of your business	1	7	4.94	.918
2	Over the past three years, how many changes have occurred amongst competitors that have had a negative impact on the nature of your business	1	7	3.03	.855
3	Over the past three years, how many changes have occurred amongst suppliers that have had a negative impact on the nature of your business	1	7	4.06	.983
4	Over the past three years, how many changes have occurred in technology that have had a negative impact on the nature of your business	1	7	3.98	.963
5	Over the past three years, how many regulatory/economic changes have occurred that have had a negative impact on the nature of your business	1	7	4.93	1.042
Complexity					
1	How diverse in nature are the product/service requirements of your customers to each other	1	7	5.96	.944

2	How diverse are the strategies and tactics of your key competitors to each other	1	7	5.85	.954
Hostility					
1	How intense is the competition for your main products/services	1	7	5.98	.901
2	How difficult is it to obtain the necessary inputs for your business	1	7	5.91	1.003
3	How many strategic opportunities are currently available to your business	1	7	5.81	1.007

Source: Author's Computation (2019)

fourth sub-constructs (complexity and hostility) have means scores hovering around 5.00-5.98 with standard deviations in the region of 0.900-1.07. These results also imply that the level at which the sampled firm perceived the environment to be uncertain is relatively moderate but not low.

The general trend in relation to the level of the stakeholders' influence on the choice of MCS, operationalized and measured through three variables: regulatory pressure, provider of capital pressure and association pressures appear to indicate that the influences are on the high side given the mean scores for all the measurement questions hovering around 5.00-6.05 with standard deviations less than 1.05 as presented in table 4.12-4.14

Table 4.12: Regulatory Pressure

S/N	Items	Min	Max	Mean	S.D
<i>The use of the following control mechanisms are in response to regulatory requirement(e.g., Tax regulation, Companies and Allied Matter Act, Environmental Law and other relevant law)</i>					
1	Planning control	1	7	6.01	.924
2	Measurement control	1	7	5.80	.923
3	Compensation control	1	7	5.90	.919
4	Structure control	1	7	5.94	1.00
5	Policies and Procedures control	1	7	6.03	.881
6	Sociological controls	1	7	5.93	.964

Source: Author's Computation (2019)

Table 4.13: Associate Membership

S/N	Items	Min	Max	Mean	S.D
Being a membership of manufacturing association and other related association, the following MCS are in use to enjoy the eco-operation the association					
1	Planning control	1	7	6.16	.794
2	Measurement control	1	7	5.98	.858
3	Compensation control	1	7	6.03	.868
4	Structure control	1	7	6.05	.893
5	Policies and Procedures control	1	7	6.01	.920
6	Sociological controls	1	7	6.04	.926

Source: Author's Computation (2019)

Table 4.14: Provider of Capital

S/N	Items	Min	Max	Mean	S.D
<i>The use of the following MCS is in line with dictate of provider of capital:</i>					
1	Planning control	1	7	5.94	.912
2	Measurement control	1	7	5.84	.815
3	Compensation control	1	7	5.94	.897
4	Structure control	1	7	6.03	.938
5	Policies and Procedures control	1	7	6.03	.918
6	Sociological controls	1	7	5.98	.895

Source: Author's Computation (2019)

The mean scores of the response rate on the firm performance appear to be on the high side as shown in table 4.15. The dependent variable was measured by 13 measurement question of which six focused on how the sampled firms are faired compared to their competitors in term of financial performance, sales growth, market shares and overall performance. The mean scores for all these measures are in the region of 5.00-6.07 with standard deviation less than one. Similar pattern is also observed for the remaining seven questions that centered on the MCS performance of the sample company

Table 4.15: Firm Performance

S/N	Items	Min	Max	Mean	S.D
Perceived financial Performance					
1	What is the level of your firm's financial performance to that of your competitors over the past five years	1	7	5.89	.940
2	What is the level of your firm's sales growth of new product/service market to that of your competitors over the past five years	1	7	5.74	.923
3	What is the level of your firm's sales growth of existing product/service market to that of your competitors over the past five years	1	7	6.06	.785
4	What is the level of your firm's relative market share for primary products/services to that of your competitors over the past five years	1	7	6.02	.830
5.	What is the level of your firm's relative market share for primary products/services to that of your competitors over the past five years	1	7	6.02	.830
6.	What is the level of your firm's overall performance to that of your competitors over the past five years	1	7	5.95	.968
Perceived Non-financial					
<i>How would you rate the performance of your company MCS in term of the following</i>					
	Motivating employees	1	7	5.88	.937
	Guiding employees	1	7	5.85	.888
	Coordinating employees	1	7	5.89	.860
	Guiding managers	1	7	5.97	.918
	Supporting managers task	1	7	6.00	.873
	evaluation employee	1	7	6.05	.881
	Monitoring employee	1	7	6.02	.888

Source: Author's Computation (2019)

4.4 Preliminary Analysis of quantitative data

This section presents the results of the diagnostic tests concerning the distribution of the scores of the study's variables and their relationship. The preliminary test is conducted to ensure non-violation of the assumptions (non-existence multi-collinearity of independent variables, and normality and linearity of the distribution of scores on the variables) of the multiple regressions techniques used for the testing of hypotheses on research questions i, ii, iii & iv

4.4.1 Normality and Linearity Tests

The extent to which the scores on the study variables are normally distributed was measured using the test of skewness and kurtosis as presented in table 4.16. Based on the threshold of -3 to 3 for skewness and kurtosis, all the scores on the study variables were to a greater extent normally distributed as reflected in table 4.16 in which skewness and kurtosis figures are within range of the threshold.

Given the large sample cases used in this study, it is also of relevance to check the shape of distribution graphically in order to reduce the sensitivity of the two measures (skewness & kurtosis) as recommended by Tabachnick and Fidell (2007). The inspection of the shape of the normal plots for firm performance in figure 4.1 indicates that the distributions of the scores are largely normally distributed.

Table 4.16: Normality Test

S/N	Constructs	Mean	S.D	Skewness	Kurtosis
1	Planning	5.84	.880	-1.347	2.708
2	Measurement	5.92	.702	-1.874	2.427
3	Compensation	5.63	.956	-1.089	2.036
4	Structure	5.99	.643	-1.706	1.153
5	Policy and Procedure	5.96	.629	-1.746	.956
6	Socio-cultural	5.96	.593	-.987	2.031
7	Task Uncertainty	6.09	.583	-.610	-.094
8	Perceived Environmental Uncertainty	5.89	.586	-.750	.432
9	Accounting Control	5.88	.702	-1.838	1.713
10	Non-Accounting Control	5.97	.536	-1.605	2.420
11	Regulatory Pressure	5.94	.534	-.392	-.167
12	Provider of Capital	5.96	.593	-.532	-.255
13	Firm Performance	5.94	.534	-.392	-.167
14	Association Pressure	6.04	.661	-.683	-.144

Source: Author's Computation (2019)

The test for assumption of linearity which required that the residuals should have a straight-line relationship with the predicted dependent variable scores (Pallant, 2007) was carried out using the residuals scatterplots as shown in Figure 4.2. The visual inspection of the figure 4.2 show that the residuals are roughly distributed with most scores concentrated in the center suggesting that linearity assumption has not been violated (Fidell, 2007).

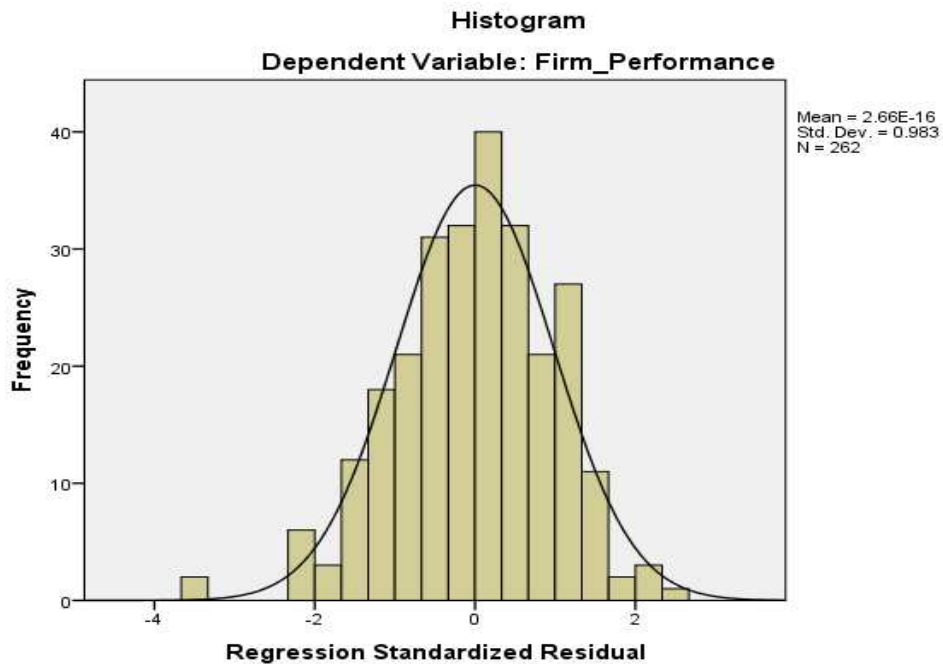


Figure 4.1 Histogram and Normal Probability Plots for Firm performance

Source: Author's Drawing (2019)

The test for assumption of linearity which required that the residuals should have a straight-line relationship with the predicted dependent variable scores (Pallant, 2007) was carried out using the residuals scatterplots as shown in figure 4.2. The visual inspection of the figure 4.2 show that the residuals are roughly distributed with most scores concentrated in the center suggesting that linearity assumption has not been violated (Fidell, 2007)

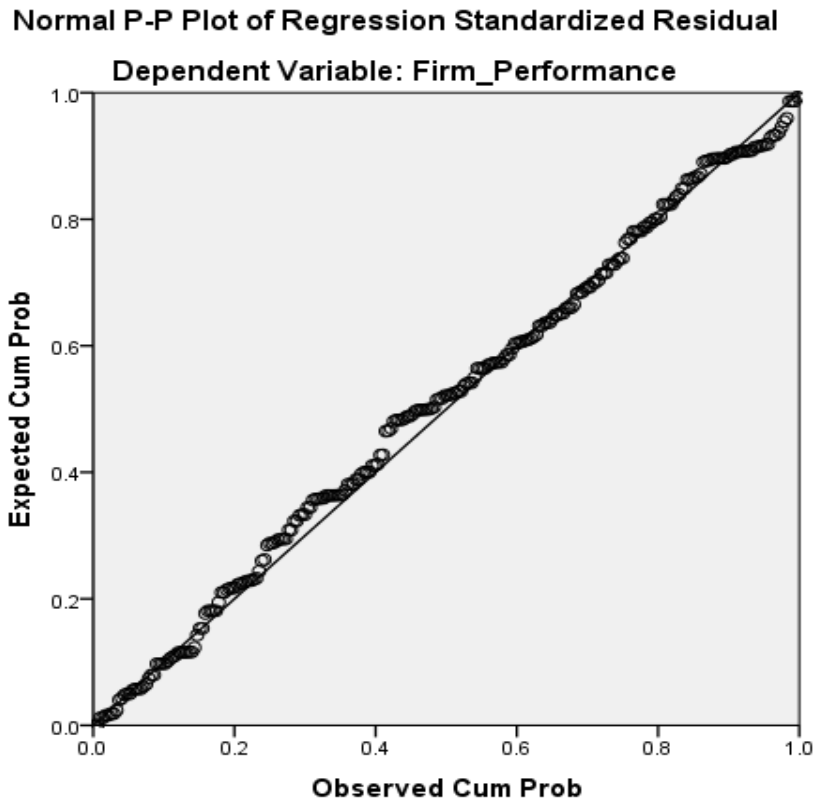


Figure 4.2 Residual scatterplot

Source: Author's Drawing (2019)

4.4.2 Multicollinearity Test

In order not to include two variables with a bivariate correlation, leading to problem of multicollinearity, Pearson correlation analysis was conducted on all the independent variables. The result of the pair-wise correlation analysis is presented in table 4.17. As revealed in the table, none of the pair-wise correlations among independent variables exceed 0.70. Thus, the threat of multi-collinearity appears limited (Gujarati, 2003).

Table 4.17: Pearson correlation matrix for all independent variables

	Planning	Measurement	Compensation	Structure	Policy_Procedure	Socio_Cultural	Provider_Capital	Accounting_Control	Non_accounting_Control	Task_Uncertainty	Environ_Uncertainty	Regulatory_Pressure	Associatn_Pressure
Planning	1												
Measurement	.779**	1											
Compensation	.597**	.644**	1										
Structure	.545**	.638**	.632**	1									
Policy_Procedure	.423**	.540**	.456**	.656**	1								
Socio_Cultural	.549**	.608**	.502**	.639**	.572**	1							
Provider_Capital	.001	.179**	.227**	.266**	.257**	.293**	1						
Accounting_Control	.859**	.984**	.730**	.667**	.546**	.628**	.163**	1					
Non_accounting_Control	.588**	.690**	.615**	.888**	.847**	.858**	.315**	.712**	1				
Task_Uncertainty	.288**	.454**	.383**	.559**	.531**	.603**	.304**	.445**	.654**	1			
Environ_Uncertainty	.359**	.484**	.491**	.511**	.555**	.668**	.375**	.497**	.669**	.645**	1		
Regulatory_Pressure	.155*	.200**	.342**	.432**	.229**	.332**	.386**	.225**	.387**	.390**	.422**	1	
Associatn_Pressure	.207**	.323**	.378**	.440**	.277**	.415**	.548**	.331**	.440**	.371**	.486**	.565**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Source: Author's Computation (2019)

In order to detect the problem of multi-collinearity that may not be evident in the correlation matrix presented in table 4.17, further collinearity review was carried out by calculating tolerance and Variance Inflation Factor (VIF) coefficients. As revealed in table 4.18, None of the tolerance and VIF coefficient is less than and above 10 respectively. In fact, the highest tolerance value and VIF are 0.632 and 3.081 respectively, indicating no threat of multi-collinearity.

Table 4.18: VIF and Tolerance

S/N	Constructs	Items	Tolerance	VIF
1	Planning	5	.325	3.076
2	Measurement	23	.281	3.560
3	Compensation	3	.453	2.209
4	Structure	12	.325	3.081
5	Policy and Procedure	11	.463	2.159
6	Socio-cultural	13	.369	2.711
7	Task Uncertainty	6	.464	2.153
8	Perceived Environmental Uncertainty	15	.383	2.609
9	Regulatory Pressure	6	.580	1.725
10	Provider of Capital	6	.632	1.582
11	Association Pressure	6	.492	2.031

Source: Author's Computation (2019)

4.4.3 Factor Analysis and Reliability Test for Contingency Variables

In assessing the validity of contingency variables as constructs, the study subjected the instruments to senior academics and practitioners' content evaluations to ascertain that the items adequately represents the universe of all relevant items under study. In addition, construct validity and reliability tests were conducted for contingency variables used in multiple regression models, while construct validity and Reliability test for other management control variables and performance used in PLS was carried out in the measurement model aspects of SEM-PLS. Table 4.19 shows the results of the both tests.

For the construct validity, principal components analysis (CPA) was used to extract loadings for the variables under consideration. Two uncorrelated factors with eigenvalues of 2.663 and 1.117 are extracted explaining 62.96 of the total variances. The factor loadings for task uncertainty and other contingency variables are presented in table 4.19. For the perceived environmental uncertainty, three uncorrelated factors with eigenvalues of 5.470, 1.861 and 1.578 are extracted, explaining 59.39% of the total variance. The corresponding factor loadings are also presented in table 4.19.

Table 4.19: Factor Analysis and Reliability Measures for the Contingency Variables

ITEMs	Factor (PCA)	Loading	Cronbach's alpha
Task Uncertainty:			0.742
TOM1	0.709		
TOM2	0.587		
TOM3	0.749		
TTP1	0.747		
TTP2	0.598		
TTP3	0.583		
Perceived Environmental Uncertainty			0.875
EUU1	0.597		
EUU2	0.578		
EUU3	0.586		
EUU4	0.665		
EUU5	0.645		
ETU1	0.549		
ETU2	0.578		
ETU3	0.546		
ETU4	0.565		
ETU5	0.719		
ECM1	0.623		
ECM2	0.616		
EHS1	0.621		
EHS2	0.652		
EHS3	0.653		

Regulatory Pressures		0.846
RPR1	0.671	
RPR2	0.778	
RPR3	0.793	
RPR4	0.732	
RPR5	0.802	
RPR6	0.741	
Association Pressures		0.848
APR1	0.740	
APR2	0.787	
APR3	0.743	
APR4	0.771	
APR5	0.735	
APR6	0.767	
Provider of Capital Pressures		
PCPR1	0.791	
PCR2	0.899	
PCR3	0.755	
PCR4	0.560	
PCR5	0.751	
PCR6	0.860	

Source: Author's Computation (2019)

For the three institutional variables (regulatory, association and provider of capital pressures) factors extracted are in the range of one to two. One factor for regulatory pressures with eigenvalue of 3.410, explaining 56.84% the total variance, while the eigenvalue of 3.418 with one factor extracted for association pressure explaining 56.96% of the total variance. Two uncorrelated factors are extracted for provider of capital pressures with eigenvalues of 2.696 and 1.128, explaining 63.73% of the total variance. All the related factor loadings for the three institutional variables are also presented in table 4.19.

For the assessment of internal consistency of the study's scale, Cronbach's alpha was applied. The coefficients for all variables are above 0.70 threshold suggested by DeVellis (2003) as shown in table 4.19.

4.5 Restatement and Testing of Hypotheses

This section presents the results of multiple regression and SEM-PLS for the testing of hypothesis to answer the research questions raised in chapter one. It also provide discussion of findings on each of the research questions

4.5.1 Influence of Institutional Pressures on the Usage Level of Accounting and Non-accounting controls system

4.5.1a Quantitative Analysis

In order to answer the research questions one and two, the following hypotheses were tested:

H_1 : Institutional pressure has no significant influence on the choice of accounting control System use by Manufacturing SMEs in Lagos State

H_{1a} : There is no significant relationship between the usage level of accounting controls system and provider capital pressure in manufacturing SMEs in Lagos State

H_{1b} : There is no significant relationship between the usage level of accounting controls system and regulatory pressure in manufacturing SMEs in Lagos State

H_{1c} : There is no significant relationship between the usage level of accounting controls system and association pressure in manufacturing SMEs in Lagos State

H₂: Institutional pressure has no significant influence on the choice of non-accounting control System use by Manufacturing SMEs in Lagos State

H_{2a}: Regulatory pressure has no significant influence on the choice of non-accounting Control System use in Manufacturing SMEs in Lagos State

H_{2b}: capital provider pressure has no significant influence on the choice of Control System use in Manufacturing SMEs in Lagos State

H_{2c}: Association pressure has no significant influence on the choice of non-accounting controls System use in manufacturing SMEs in Lagos State

Table 4.20a and b provide the results of the regression analysis used to examine the influence of institutional pressures on accounting and non-accounting control system. In table 4.20a, only association pressure show to exhibit a significant positive association with accounting control systems (t-value=4.00, P-value<0.01) thereby providing basis to reject H_{1c}. Although, there seem to be positive association between regulatory pressure and accounting control system, the relationship was not significant (t-value =0.832, P-value>0.05). In the case of provider of capital, the estimated coefficient is negative and not statistically significant (t-value=-0.464, P-value>0.05). Thus, H_{1a} and H_{1b} was not rejected. Non-rejection of hypothesis H_{1a} and H_{1b} and the rejection of H_{1c} are suggestive of the fact that regulatory pressures and providers of capital pressures are not primary drivers of the decision of the SMEs' use of accounting control techniques (Planning, budget, cost control, accounting-based performance evaluation techniques and rewards system) while association pressures seem to drive the decision of SMEs' use of accounting-based MCS. In other word, SMEs' use of accounting-based MCS practices may not be entirely attributed to rationality of need but to pressures like interaction and influence of its peers.

Overall, the estimated regression model for H_{1a}, b and c was statistically significant (F=62.50, P-value <0.005) though, only 42% of the variation in the choice accounting-based MCS were successfully predicted by the three explanatory variables (provider of capital pressures, association pressures and Regulatory pressures).

Table 4.20a: Regression results on influence of Institutional Pressures on Accounting Control System.

Variable	Coefficient	Standard errors	T-value	P-value
Intercept	3.737	0.473	7.906	0.000
Provider of capital Pressure	-0.039	0.083	-0.464	0.643
Association Pressure	0.335***	0.084	4.000	0.000
Regulatory Pressure	0.059	0.071	0.832	0.406
F-statistic	62.50			
P-value	0.000			
R-square	0.420			
Adjusted R-square	0.413			

Note: ***, ** and * Denote rejection of null hypothesis at 1, 5 and 10% significant level

Source: Author's Computation (2019)

In relation to H_{2a}, b and c, the regression results in table 4.20b indicate that association and regulatory pressures have positive influences on non-accounting based MCs practices, since the estimated coefficients between regulatory and association pressures are positive and statistically significant (t-value=2.896 P-value< 0.01) and (t-value=3.867, P-value< 0.01) respectively. Based on these results, the study reject null H_{2a} and c, but failed to reject H_{2b} (t-value= 1.281, P –value >0.005) for non-significant positive regression coefficient. In contrast to the evidence observed on accounting –based MCS, the influences or pressures on SMEs' use of non –accounting control system seem to be broader in scope given the regression evidence in table 4.20b.

Table 4.20b: Regression results on influence of Institutional Pressures Non-Accounting Control System

Variable	Coefficient	Standard errors	T-value	P-value
Intercept	3.243	0.338	9.606	0.000
Provider of capital Pressure	0.076	0.060	1.281	0.201
Association Pressure	0.023***	0.060	3.867	0.000
Regulatory Pressure	0.015***	0.051	2.896	0.004
F-statistic	74.879			
P-value	0.000			
R-square	0.465			
Adjusted R-square	0.459			

Note: ***, ** and * Denote rejection of null hypothesis at 1, 5 and 10% significant level

Source: Author's Computation (2019)

Similarly, the F-statistics for the regression model on H_{2a,b} and c is 25.19 (P-value<0.05) and statistically significant, with the three explanatory variables predicting 22% variation in the use of non-accounting control system by Small and Medium Manufacturing Enterprises.

4.5.1b Qualitative Analysis

The qualitative evidence obtained in relation to research questions one and two support the quantitative evidence that association pressures to a greater extent play role in the choice of MCS among SMEs. Substantial numbers of respondent managers acknowledge to the need to comply or align with practices that are common to their peers in the industry. Indeed, a senior manager in one of the sampled companies responded to the question: Describe the influence of Manufacturing Association of Nigeria and other associations that your company belongs to, on the choice of management techniques used by your organization- as follow:

“We don't have problem with that, so far you are doing things rightly. I don't think we have much, definitely there was a time... but mostly we have gone past that, because at every year, we are among those that get compliance award, we have been getting that for more than ten years

now. So we try as much as possible not to deviate from common practices, if you don't do that you are likely to be having problem with the association."

The underline sentence explicates the perception of the respondent on the extent to which the associations they belong drive the choice of MCS. Other interviewed managers gave similar responses

While for other institutional pressures (regulatory pressures and provider of capital), the responses of the interviewed managers also affirmed to the fact that much relationship do not exist between these institutional factors and MCS choice. This is obvious in the responses of the two managers to the question:

Are there any situations in which your company seeks for external fund with a condition that specific control activities must be in place to get the fund-as restated below:

Manager A

"I don't think so, ordinarily, a company of this magnitude do get funds offer from banks, it is not every time you use your money to do business, sometimes we get funds from commercial banks, we do that a lot and I think it is an healthy situation. That does not mean that the creditors influence our internal practices especially in the area of control."

Manager B

"we don't collect loan but we place ourselves on credit, like the flour we used we collected on credit. But as long as we meet our obligation no any pressures from the creditors on our operational activities."

Manager C

"No. periodically, NAFDAC and SON usually come here, but you know for a company like this, apart from the fact that we are certified nationally, we are also certified internationally, apart from NAFDAC certification, we have ISO certification."

Looking at the first two highlighted sentences above, it is revealing that influences of creditors on the accounting and non-accounting control system seems not to exist. However, as observed in quantitative analysis, the regulatory pressures and association pressures seem also to influence the choice of accounting and non-accounting control system among Small and Medium Manufacturing Enterprises, going by the highlighted sentences in relating to regulatory and association pressures.

4.5.2 Influence of contingency factors (TU, PEU and Firm's Age) on the Usage Level of Accounting and Non-accounting control system

4.5.2a Quantitative Analysis

The relevant hypothesis relating to the research question on the relationship between TU, PEU and Firm's age are restated as follows:

H₃: Internal contingencies have no significant influence on the choice of accounting control System use in Manufacturing SMEs in Lagos State

H_{3a}: There is no significant relationship between accounting controls system and perceived environmental uncertainty in manufacturing SMEs in Lagos State

H_{3b}: The relationship between accounting controls system and task uncertainty in manufacturing SMEs is not significant

H_{3c}: The relationship between accounting controls system and firm's age is not significant

H₄: There is no significant relationship between non-accounting controls system and internal contingencies in manufacturing SMEs

H_{4a}: There is no significant relationship between non-accounting controls system and perceived environmental uncertainty in manufacturing SMEs is not significant

H_{4b}: There is no significant relationship between non-accounting controls and task uncertainty in Manufacturing SMEs.

H_{4c}: The relationship between accounting controls system and firm's age is not Significant

The results in table 4.21a and 4.21b provide evidences on the relationship between the decision by Small and Medium manufacturing enterprises to use accounting-based MCS and non-accounting based MCs and contingency factors of PEU, TU and firm age. The evidence in table 4.21a shows that positive relationships exist between accounting control system and TU, and PEU since their estimated coefficients are statistically significant (t-value=3.223,P-value<0.01) and (t-value=4.360,P-value<0.01) respectively. But firm age exhibit statistically insignificant negative relationship with accounting control system (t-value=-1.376,P-value>0.05). Given these evidences, the study failed to accept *H_{3a}* and *b* while *H_{3c}* was not rejected. Broadly speaking, these evidences suggest that the sample firms engage in the use of accounting control system

even where they perceived that the environment is highly unstable, turbulent, hostile and complex as well as when the subordinate's performance outcome are highly measurable and task/action are highly programmable. However, the evidence on firm's age indicates that firm's level of maturity does drive the decision to adopt accounting control system. The model fit of the regression line was also statistically significant(F-statistics=33.229,P-value< 0.05)as depicted in table 4.21a.However,only 27% variation in the use of accounting control system were explained by the three contingency factors.

Table4.21a: Regression results on Influence of contingency factors (TU, PEU and Firm's Age) Accounting Control System

Variable	Coefficient	Standard errors	T-value	P-value
Intercept	2.102	0.482	4.364	0.000
Task uncertainty (TU)	0.270***	0.084	3.223	0.001
Perc. Environmental uncertainty	0.386***	0.089	4.360	0.000
Firm's Age	-0.044	0.032	-1.376	0.170
F-statistic	33.229			
P-value	0.000			
R-square	0.279			
Adjusted R-square	0.270			

Note: ***, ** and * Denote rejection of null hypothesis at 1, 5 and 10% significant level

Source: Author's Computation (2019)

The results in table 4.21b also revealed evidences of statistically significant positive relationship between TU,PEU and non-accounting control system as indicated by their regression coefficients (t-value=6.993,P<0.01) and(t-value=6.583,P-value<0.01) respectively, while for the firm age, the negative relationship indicated by its regression coefficient was not significant (t-value=-1.567,-value>0.05). The evidences informed the decision not to accept H_{4a} and while H_{4c} was not rejected. By virtue of these evidences, it seems that the extent to which environment is perceived to be highly uncertain and subordinate's performance outcome highly measurable and task

highly programmable drive the use of non-accounting control system. Similarly, the model fit of the regression line was also statistically significant as shown in table 4.21b. In deed,53% of the variation in the use of non-accounting control system were explain by the three contingency factors.

Table4.21b: Regression results on Influence of contingency factors (TU,PEU and Firm’s Age)Non-Accounting Control System

Variable	Coefficient	Standard errors	T-value	P-value
Intercept	1.774	0.295	6.005	0.000
Task uncertainty (TU)	0.359***	0.051	6.993	0.000
Perc. Environmental uncertainty	0.358***	0.054	6.583	0.000
Firm’s Age	-0.031	0.020	-1.567	0.118
F-statistic	99.54			
P-value	0.000			
R-square	0.537			
Adjusted R-square	0.531			

Note: ***, ** and * Denote rejection of null hypothesis at 1, 5 and 10% significant level

Source: Author’s Computation (2019)

4.5.2b Qualitative Analysis

In order to get in-depth understanding and evidences to research questions three and four, the study obtained responses relating to their perception on the level of environmental uncertainty, task uncertainty and age. For environmental uncertainty, much of the responses from the managers show that the SMEs acknowledge the volatility of their business environment and often respond to it in different ways. Specifically on the extent to which customers are unpredictable, interviewed managers agreed to the importance of putting appropriate strategy to manage the turbulent business environment. The below responses from managers attested to the observation:

“we have a lot of projection, I can call customers a lot, they are with you today, and tomorrow they can be with company B. But the fact is that we will continue to give incentives,

plan, make advertisement, and when we see that our product is about to die, we will re-package and renounce and we always give incentives to customers to retain them.”

“when you are in an organization like this you expect a lot of changes from customers, ranging from your pricing , your ability to deliver on time and when you talk in term of technology, the type of machineries you use, they may look at your pack and say it is not well sealed. That is when you have to improve on your technology, when you bring in machines that can put good finishing to your products, because another thing is to have packaging, which can easily help you in selling the product.”

There were also responses relating to how manager perceived competitor uncertainty as one of the aspect of environmental uncertainty. These are given below:

“the competitors are always on the lookout, you know in this food business you don’t have to be a... everybody is trying to do the same thing you do but in a different standard, so you don’t have to sleep on your house, everybody is trying to be at their best with the packaging. You know this is mostly for children but with our own standard we are trying to meet up with different age and different product for different people, so in maintaining that standard we have to still compete with the major market itself from the north to the east to the south so we will be able to manage large number of customers. We believe the customers increase your turnover so the competition is very intense.”

“In addition, the government policy is not helping us in this direction, we have a lot of imported sweets that are much cheaper than what we produce internally and they just have to come through the border without any control.”

“a manufacturing company where company will like to make day to day income, competition is expected to be stiff and highly intense, so the competitors are not resting they keep producing, we also keep producing but the edge we have is the quality of our product, we don’t play with our quality, if you go into our factory there are products that are marked ‘on hold’, so that means that are not meeting up with the required quality, so that is what has been sustaining us despite the fact that the competition is very intense”

With all these responses as evidences of the existence and influence of environmental uncertainty on MCS practices, the quantitative evidences as to the influences of PEU on MCS choice was to a large extent significant and factual not by chances.

In support of the findings in quantitative approach reported on the influence of TU on MCS practices, qualitative evidences obtained was also suggestive of similar trend. The evidences are the highlighted sentences in the responses presented below:

“just as he has said, the supervisory report should bring information to the top management. So I think with the aid of the supervisors the management is able to know, and before now, maybe because of the economic situation and inconsistency we have not been able to promote some people because that is the goodwill that is given to one who is consistent. So we promote them on the ground that you have been very effective, coming on time, delivering work on time, proffering ideas and solutions when they are needed.”

“there is something in place that we call appraisal system, in which a superior officer will appraise the subordinate periodically. However there is one that is done at the middle of the year, it is an appraisal but it is not actually going to award marks, it will just show the subordinate how he is faring, whether he meet the expectation or about to meet the expectation and what he needs to do, it will give him a kind of general position (where he stands) in order to know how to improve on what he is doing. At the end of every year, usually January to December based on what the subordinate score in the middle of the year and end of the year, you will sum it together and appraise. We have qualitative areas which he will be tested and we have and quantitative, those that can be measure by mass, that this is what you are suppose to achieve and this is what you have been able to achieve. It is measurable and there are some that are not measurable, those are the one we call qualitative, there is no way you can measure integrity, it is either you have it or not, it is either 100% or 0, so what must have transpired within the year must have shown whether you have that or not. So we test the subordinate on that, after that we give the score and at the end of the period, say February-march subordinate will be rewarded based on what he score on the appraisal. Basically, there is what we call productivity bonus; the productivity bonus will be paid based on what you score, if you are able to get 100% that means you are normal, you are on successful performance, if you score 120% that means you have score more, that may earn you increase in salary, even if they are on the same level with other subordinate. If you get 80, 100, 120, you may get about 300,000 productivity bonuses, someone that scoreless may get 200,000 naira or 220,000 naira. Apart from that, it will give us the basis we are to place...to say somebody that score above can perform better, we can increase the salary or promotion.”

Based on the above underlined sentences, the evidence is suggestive of high level of TU and thus influence on the MCS practice of the Sampled SMEs. This evidence complementarily supported the findings reported under quantitative approach.

With respect to age of the firms, little or no evidences as to its effect on MCS practices were observed from the responses of the interviewed managers.

4.5.3 Influence of Planning, Measurement, Compensation, Structure, policies and procedures and socio-cultural control on firm performance.

4.5.3a Quantitative Analysis

For the purpose of answering research questions five and six, the following restated hypotheses were raised:

H_5 : Accounting control systems is not associated with the Performance of manufacturing SMEs

H_{5a} : Planning is not associated with the Performance of manufacturing SMEs

H_{5b} : There is no significant relationship between measurement and the Performance of manufacturing SMEs

H_{5c} : There is no significant relationship between compensation and the Performance of manufacturing SMEs

H_6 : Non-accounting control systems is not associated with the Performance of manufacturing SMEs

H_{6a} : Structure is not associated with the Performance of manufacturing SMEs

H_{6b} : There is no significant relationship between policies & procedures, and the Performance of manufacturing SMEs

H_{6c} : There is no significant positive relationship between socio-cultural and the Performance of manufacturing SMEs

The study employed partial least square structural equation modeling (PLS-SEM) to examine the model on the relationship between MCS component and firm performance. This technique is highly flexible to allow for both manifest and latent variables for which the MCS components

under consideration possess. PLS-SEM simultaneously estimate both the measurement and structural models of the variables under consideration.

4.5.3.1 Assessment of the Measurement Model

One of the basic requirements for the use of PLS-SEM for analysis of data is to assess the measurement quality of the reflective constructs used in a study prior to formal hypothesis testing through structural model of the PLS-SEM. This was carried through reliability and validity test of the measurement model. Though, similar tests have been earlier carried out in section 4.4.3 for the purpose of regression analysis, the test is an integral part of PLS-SEM which cannot be avoided. This test was carried out through SmartPLS3.

4.5.3.1.1 Assessment of Reliability

Two tests of reliability-indicator and construct reliability were carried. For indicator reliability, factors loading for all the retained indicators were above the threshold of 0.50 recommended by Chin (1998) as shown in table 4.22. Similarly for the construct reliability, all Cronbach's alpha coefficients and average variance extracted exceed the threshold of 0.7 and 0.5 respectively as also shown table 4.22. In addition, the composite reliability for all the constructs were also above the threshold of 0.7. Overall, the indicators reflect, to a greater extent, the latent variables that they are associated with.

Table 4.22 Reliability measures for the Reflective constructs

Constructs	Items	Loading	A	CR	AVE
Compensation	CPB1	0.873	0.777	0.871	0.694
	CPB2	0.872			
	CSB1	0.749			
Organizational Perf.	FNF1	0.659	0.818	0.864	0.506
	FNF2	0.605			
	MCF1	0.713			
	MCF2	0.792			
	MCF3	0.789			
	MCF4	0.671			
	MCF5	0.600			
Measurement	MCC1	0.732	0.944	0.949	0.511
	MCC2	0.637			

	MCC3	0.693			
	MDC1	0.660			
	MDC2	0.710			
	MDC3	0.674			
	MDC4	0.699			
	MDC5	0.754			
	MIC1	0.667			
	MIC4	0.661			
	MIC5	0.653			
	MMD1	0.738			
	MMD2	0.760			
	MMD3	0.760			
	MMD4	0.765			
	MMD5	0.747			
	MMD6	0.806			
	MTC1	0.721			
Planning	PAR1	0.799	0.905	0.930	0.726
	PMD1	0.835			
	PMD2	0.889			
	PMD3	0.878			
	PMD4	0.856			
Policy & Procedure	PRR1	0.671	0.877	0.903	0.538
	PSB1	0.777			
	PSB2	0.741			
	PSB3	0.808			
	PSB4	0.794			
	PST2	0.724			
	PST3	0.652			
Socio-Cultural	SBS1	0.651	0.864	0.891	0.501
	SBS3	0.654			
	SBS4	0.680			
	SSC2	0.670			
	SSC3	0.658			
	SSE1	0.677			
	SSE2	0.648			
	SSN1	0.715			
	SSN2	0.682			
	SSN4	0.665			
Structure	SDE1	0.705	0.850	0.884	0.504
	SDE2	0.668			
	SDE3	0.727			
	SDE4	0.711			

SDE5	0.743
SNL1	0.695
SNL2	0.697
SNL3	0.638

Source: Author's Computation, (2019)

4.5.3.1.2 Assessment of validity

In relation to the validity of measurement model, assessment of content and discriminant validity and convergent validity are essentials. However, the issue of content validity has earlier been addressed in section 4.4.3. For discriminant validity test; criterion of Fornell-Lacker (1981) was used. The criterion's expectation is that latent variables should explain the variance of its own manifest variable rather than the variance of other latent variables. Therefore, it is necessary that Average Variance Extraction (AVE) value of the latent variable be higher than the square correlation of the latent variable (LV) with all other LVs. This criterion is said to be fulfilled, if for every row and column, the value in the diagonal is the highest. As shown in table 4.23, the highlighted values on the diagonal are the highest. This indicates that, to a large extent, all constructs measured different concepts.

Table4.23: Discriminant Validity test

Fornell-Larcker Criterion (Discriminant Validity)

	Compensation	Firm Performance	Measurement	Planning	Policies & Procedure	Socio-Cultural	Structure
Compensation	0.833						
Firm Performance	0.457	0.692					
Measurement	0.650	0.436	0.715				
Planning	0.595	0.359	0.782	0.852			
Policies & Procedure	0.441	0.370	0.522	0.397	0.733		
Socio-Cultural	0.508	0.564	0.612	0.570	0.495	0.670	
Structure	0.586	0.410	0.609	0.526	0.615	0.586	0.699

Source: Author's Computation, (2019)

In relation to convergent validity, loadings and cross loadings were examined as shown in table 4.24 *cross loading of latent variables* below.

Table 4.24 Cross Loading for Latent Variables

Constructs	Items	Compensation	Firm Performance	Measurement	Planning	Policies & Procedure	Socio-Cultural	Structure
Compensation	CPB1	0.82	0.428	0.541	0.491	0.379	0.489	0.457
		0.73						
	CPB2	0.872	0.357	0.556	0.557	0.359	0.382	0.446
	CSB1	0.749	0.349	0.528	0.442	0.363	0.386	0.572
Organisational Perf	FNF1	0.322	0.659	0.367	0.408	0.287	0.514	0.287
	FNF2	0.388	0.605	0.328	0.353	0.313	0.447	0.212
	MCF1	0.265	0.713	0.192	0.141	0.190	0.359	0.225
	MCF2	0.316	0.792	0.262	0.120	0.207	0.379	0.295
	MCF3	0.336	0.789	0.355	0.257	0.268	0.413	0.380
	MCF4	0.291	0.671	0.323	0.216	0.271	0.315	0.344
	MCF5	0.247	0.583	0.226	0.138	0.226	0.162	0.222
Measurement	MCC1	0.384	0.271	0.732	0.541	0.597	0.489	0.533
	MCC2	0.426	0.092	0.637	0.565	0.339	0.306	0.327
	MCC3	0.452	0.338	0.693	0.514	0.282	0.459	0.369
	MDC1	0.495	0.345	0.660	0.650	0.285	0.429	0.417
	MDC2	0.504	0.273	0.710	0.674	0.344	0.436	0.407
	MDC3	0.436	0.239	0.674	0.544	0.314	0.442	0.443
	MDC4	0.422	0.273	0.699	0.552	0.332	0.426	0.454
	MDC5	0.524	0.299	0.754	0.566	0.445	0.539	0.511
	MIC1	0.482	0.242	0.667	0.472	0.345	0.370	0.407
	MIC4	0.475	0.350	0.661	0.525	0.527	0.418	0.378
	MIC5	0.455	0.170	0.653	0.475	0.377	0.332	0.417
	MMD1	0.379	0.366	0.738	0.510	0.307	0.455	0.396
	MMD2	0.452	0.326	0.760	0.592	0.345	0.414	0.458
	MMD3	0.429	0.337	0.760	0.547	0.328	0.415	0.433
	MMD4	0.517	0.332	0.765	0.565	0.365	0.433	0.445
MMD5	0.529	0.327	0.747	0.626	0.369	0.380	0.481	
MMD6	0.553	0.418	0.806	0.633	0.388	0.544	0.506	
	MTC1	0.447	0.330	0.721	0.529	0.465	0.476	0.435
Policy & Procedure	PAR1	0.411	0.304	0.642	0.799	0.256	0.448	0.365
	PAU2	0.308	0.234	0.379	0.65	0.684	0.319	0.433
	PMD1	0.578	0.322	0.677	0.835	0.393	0.531	0.477
	PMD2	0.536	0.337	0.695	0.889	0.371	0.502	0.491

	PMD3	0.487	0.296	0.636	0.878	0.322	0.499	0.440
	PMD4	0.516	0.256	0.678	0.856	0.342	0.431	0.463
	PRR1	0.365	0.228	0.404	0.394	0.671	0.394	0.333
	PSB1	0.342	0.299	0.431	0.309	0.777	0.407	0.549
	PSB2	0.309	0.314	0.360	0.310	0.741	0.366	0.473
	PSB3	0.399	0.253	0.439	0.396	0.808	0.398	0.476
	PSB4	0.363	0.341	0.389	0.289	0.794	0.363	0.472
	PST2	0.291	0.172	0.373	0.230	0.724	0.295	0.400
	PST3	0.207	0.258	0.297	0.240	0.652	0.344	0.427
Socio-Cultural	SBS1	0.311	0.418	0.367	0.349	0.174	0.651	0.272
	SBS3	0.218	0.321	0.331	0.338	0.324	0.654	0.347
	SBS4	0.215	0.332	0.325	0.324	0.260	0.680	0.330
	SSC2	0.494	0.330	0.490	0.466	0.393	0.670	0.434
	SSC3	0.278	0.309	0.340	0.335	0.122	0.658	0.277
	SSE1	0.378	0.413	0.424	0.402	0.450	0.677	0.511
	SSE2	0.287	0.427	0.331	0.242	0.327	0.648	0.373
	SSN1	0.380	0.426	0.433	0.467	0.434	0.715	0.398
	SSN2	0.416	0.368	0.488	0.474	0.322	0.682	0.415
	SSN4	0.405	0.383	0.561	0.420	0.463	0.665	0.545
Structure	SDE1	0.530	0.265	0.547	0.501	0.476	0.454	0.705
	SDE2	0.402	0.195	0.375	0.320	0.426	0.316	0.668
	SDE3	0.472	0.316	0.379	0.294	0.415	0.344	0.727
	SDE4	0.424	0.296	0.417	0.298	0.473	0.305	0.711
	SDE5	0.477	0.276	0.436	0.329	0.525	0.375	0.743
	SNL1	0.359	0.314	0.436	0.431	0.400	0.492	0.695
	SNL2	0.353	0.238	0.435	0.433	0.420	0.446	0.697
	SNL3	0.278	0.335	0.381	0.345	0.324	0.506	0.638

Source: Author Computation (2019)

All the measurement element below the threshold of 0.5 as suggested by Sanchez (2013) were deleted while all the bold items in table 4.24 above were used in the analysis because of their loading which suggest high convergent validity.

4.5.3.2 Structural Model

In evaluating the structural model of the PLS-SEM, three criteria are involved: The significance of the path coefficient, the coefficient of determination (R^2) and coefficient of prognostic relevance (q^2). These were addressed in the following sub-sections.

4.5.3.2.1 Path Coefficients Result for Hypothesis Testing

For the purpose of testing the restated hypotheses above, the study evaluates the significance of the path coefficient to determine the directions and strengths of the relation of the model. Table 4.25 shows the path coefficients of the model and their respective level of significance. Accordingly, planning (t-value=4.882,P-value<0.01). Compensation (t-value=2.573, P-value<0.05), policies and procedures (t-value=3.125,P-value<0.01)and socio-cultural controls(t-value=5.732,P-value<0.01) showed a significant positive impact on the firm performance. The path coefficients of measurement(t-value=0.832,P-value>0.05) and structure (t-value=0.928,P-value>0.05) demonstrate no effect on performance as they are not significant .Based on the path coefficient and their significance levels, sub-hypothesis 5a,c and 6b,c were rejected while the remaining hypothesis (H_{5b}, and H_{6a},) were failed to be rejected. This evidence implies that SMEs use of MCS-Planning and Compensation and MCS-policies and procedures, and Socio-cultural control explained to a greater extent variation in performance of the sampled firms. It is important to stress that due to lack of normality assumption of PLS, the path coefficient's significances were generated from resampling techniques (bootstrapping).

Table 4.25:Significance of Path Coefficient

Constructs	Coefficient (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Compensation -> Firm Performance	0.225**	0.230	0.088	2.573	0.013
Measurement -> Firm Performance	0.078	0.077	0.093	0.832	0.409
Planning -> Firm Performance	0.332***	0.320	0.068	4.882	0.002
Policies & Procedure -> Firm Performance	0.206***	0.093	0.066	3.125	0.001
Socio-Cultural -> Firm Performance	0.436***	0.423	0.076	5.732	0.000
Structure -> Firm Performance	-0.007	-0.010	0.075	0.090	0.928

Note: ***, ** and * Denote rejection of null hypothesis at 1, 5 and 10% significant level

Source: Author's Computation (2019)

The relative effect of each exogenous latent variable on endogenous latent variable was further assessed through the effect of size(f^2) detailed in table 4.26 below.Based on the Cohen's (1988) guideline for interpretation of effect of size,effect of sizes for measurement,planin and structures

can be said to be none, while for the planning, compensation, policies and procedures, and socio-cultural can be considered to be moderate as shown in table 4.26.

Table 4.26 Assessment of Effect Size (f^2)

	Effect Size (f^2)	Decision Rule
Compensation	0.040	Moderate
Measurement	0.006	None
Planning	0.043	Moderate
Policies & Procedure	0.050	Moderate
Socio-Cultural	0.157	Moderate
Structure	0.000	None

Source: Author's Computation (2019)

4.5.3.2.2 Coefficient of Determination (R^2)

Coefficient of determination is one of the two measures to assess the quality of the overall structural model. The R^2 reflects the amount of explained variance of dependent variable (endogenous), which is explained by the entire independent variables (exogenous). It is similar to R^2 in linear regression models. Notwithstanding the fact that no commonly accepted threshold for R^2 in SEM, Falk and Miller (1992) suggest an R^2 of 0.10 to be the minimum acceptable level. As shown in table 4.27, the main model yielded a coefficient of determination (R^2) of 36.4%. Thus, 36.4% of the company performance variance can be explained by the means of Management control. Compare the R^2 with the minimum suggested level, the overall quality of the structural model can be said to be substantially okay.

Table 4.27 Co-efficient Determination (R^2)

Constructs	R Square	R Square Adjusted
Firm Performance	0.364	0.350

Source: Author's Computation (2019)

4.5.3.2.3 Coefficient of Prognostic Relevance (Q^2): Predictive Relevance

Coefficient of the prognostic relevance (Q^2) is the second measure to assess the quality of the overall model. It is also referred to as the Stone-Geisser criterion. Specifically, Q^2 measures the predictive quality of the model. Positive values of Q^2 indicate an adequate predictive quality of the exogenous variables, while below zero value does not allow for any conclusion on the

model's predictive ability. As indicated in table 4.28, the basic model shows a prognostic relevance of 14.9 %. Since this is positive, the study inferred a sufficient predictive relevance.

Table 4.28 Predictive Relevance (Q²)

Constructs	SSO	SSE	Q ² (=1-SSE/SSO)
Firm Performance	1,834.000	1,560.877	0.149

Source: Author's Computation, (2019)

4.5.3b Qualitative Analysis

Qualitative evidences on the effects of planning, measurement, compensation, structure, policies and procedures and socio-cultural controls to complement quantitative findings reported in table 4.28 were also available in the below responses of the managers:

Responses on planning control:

“there is no level, you know we have different level, let say from level one...seven, so level II appraise level I, level three appraise level II, and so on until you get to the director level, which will appraise the senior manager, senior manager will appraise managers, so it goes like that. But at the end of the day everything will still go to the HR, because during the period you can have grievances, you can have areas where the subordinate issue, it has to be a kind of agreement between the boss and subordinate, you can just say I score 80, I should be able to justify that yes you scored 80, if you are not face with it, there is what we call calibration, so if there is a kind of grievance procedure that you can take that will show that you are not happy with it, so that will be handle by the HR, where you call some other people and things will be sorted out.”

“it is helping positively, you know once there is projection of what you want to do, you can now put mind into, are we getting closer or not it would have been worst if there is nothing like planning that means we are just working arbitrarily and that means if we make it, it is by mistake or by luck. Like I told you we do a weekly presentation of the performance.....”

The highlighted points indicate the extent to which planning and measurement are being used as management controls. Since the sentences connote participative use of planning and measurement. This qualitative evidence supports the significant effect of planning on firm performance to a greater extent.

Responses on Compensation:

“Naturally for every employer they will want to maximize profit but having said that, relatively considering the companies around us, I think the company is doing their best, but for workers they will always demand for more. To the best of my knowledge we are among the reasonable paying company. Management pay adequate attention to reward system that has bearing with productivity. In most cases, we pay bonus to employee any time we experience high profit. We also attach reward to employee commitment.”

“value them a lot because when somebody is working for you, you cherish and value them if you want the business to be progressing. Whenever they work overtime, I give overtime bonus, because if you are not motivating your staff, work will not flow the way it suppose to.”

The emphasized sentence was common among the interviewed managers indicating the importance attached to the use of reward/compensation as management control technique. This evidence also compliment the positive significant relationship reported between compensation and firm performance.

Response on organization structure:

“in terms of structure tells you every department, how jobs are related, who report to whom and also the responsibility of each person, it enable you to know all the require jobs in the organization, are they well covered, are they represented, are they assigned, so, once they have that structure, you need to know in a department who has this responsibility, you cannot be demanding the responsibility of a supervisor from an operator. If you enter an organization and you demand for organizational structure, what you are trying to ask is how the place is being run, who is doing a particular job and at what end. When you now put performance target and reward, the performance target of a supervisor is different from that of operator, for a supervisor you need to specify the performance target, with percentage and timeliness for activities and for the operator the only thing you are asking from them is the quality of job, quantity of job and punctuality, for a supervisor, he will tell you the volume that must be achieved and the wastage that is allowed, for this line, this is the number of hours this line suppose to run, without the structure, you will not know who to go to.”

The evidence obtained in relation to the use of structure suggests that the SMEs are aware of the important of organization structure to allocate responsibility. But the extent to which structure is being used as communication device and liaison strategy were not emphasized by the interviewed manager. This confirms the insignificant relationship reported between organization structure and firm performance.

Response on policies and procedure:

“Policy and procedure like I told you, I work in the internal control, internal control overhead assurance for the management, as to the adherence to the policy and procedures of the company that are having done by each of the functions and department. We have various policies that are guiding each of our operations; we have stock policy, procurement policy, fixed asset policy, we have policies for all the functions already, but what is important is that there are times you need to review your policies, we look into each of the department and see that they are actually following the policies and we have procedures during operations also, for instance you are a loader (logistics department) there are steps you should follow, that you should not beat. So, those are the things that internal control department are looking at, we audit all the functions one by one, we have a timetable of what we are going to do and we do that periodically, so there is no way one will even bypass policy and procedures because there is a department that is checking that. So, on that basis we ensure that those things are put in place and are actually adhere with.”

The evidence of positive significant relationship observed in quantitative analysis above is complimentarily supported by the response of the interviewed managers on the use of policies and procedures as control techniques to achieve goal congruence among employees indicated in the above response on policies and procedures.

Response on Socio-cultural:

“as an organization we have our values and we strictly adhere to it without tarnishing our integrity which is paramount. For the safety aspect of it, we are very strict about safety and we don't toy with it, we usually follow policies concerning safety and integrity to the latter.”

“what we do basically is that, when there is an opening, I try as much as possible to fish in-house to see people that are in lower level that have experience. We advertise internally first, if we could not get anybody then we take it outside. After being employed we do what is called induction, which will be anchor by the HR department, in the induction the HR will introduce the company to the newcomers, then we will have one person from each of the department that will talk about their department to the newcomers, so that they will be conversant with the activities of the department and that will be done within a week from when the newcomers come in and after that the familiarization, the HR will take the employer round the company (individual introduction) so that it will not be that everybody does not know him, he is part of the family so he will be treated like a family.”

“all those are in our code of conduct and ethics, and our organization have that to produce quality good product at affordable price. There is a document that specifies all those things, that is given every time to a new employee. The first thing that will be given is the employee handbook, it contains the rules guiding the employee, you will also be given the code of conduct that shows the ethics and all the things that you need to know, which will read and digest. Those are part of the things that can even be asked about during the induction programme.”

With all the evidences emphasized in the earlier responses, it was obvious that SMEs make use of various socio-cultural techniques to influence the behavior of their employees. The sample companies engage in the use induction, recruitment, socialization as management control devices as indicated in the highlighted sentences. These qualitative evidences align with the result of quantitative approach that socio-cultural control has significant positive effect on the firm performance.

Overall, the six management control techniques, based on both quantitative and qualitative evidence, explain substantial variation in the performance of the selected Small and Medium Manufacturing enterprises.

4.5.4 Impact of the Degree of Fit between Accounting and Non-Accounting Control System and Contingency Factors on Firm Performance

To provide answer for research questions seven and eight, the following hypothesis are re-stated:

H₇: Performance is not associated with degree of fit between accounting controls system and internal contingencies

H₈: Performance is not associated with degree of fit between non-accounting controls system and internal contingencies

These hypotheses aim to confirm the argument advanced in the MCS literature that firm performance should substantially related to the suitability of business's MCS practices not just the decision to adopt the MCS. The results in Table 4.29 show the degree of lack of fit between MCS and contingency variables and its effect on performance. Accordingly, the estimated coefficient on /e/, fit-accounting control is -0.0264 (t-value=-2.920,P-value<0.01) implies that as the extent of lack of fit between accounting control system and contingency factors increases, firm performance decreases. Based on this result, the study fails to accept hypothesis seven. This suggests the existence of lack of optimal choice in the use of accounting control system among SMEs.

Table4.29: Regression results on degree of Fit between accounting and non-accounting control system and contingency factors on firm performance

Variable	Coefficient	Standard errors	T-value	P-value
Intercept	6.050	0.034	120.070	0.000
Fit-accounting cont.	-0.264***	0.090	-2.920	0.004
Ft-non-accounting cont.	0.018	0.147	0.125	0.623
F-statistic	103.023			
P-value	0.004			
R-square	0.443			
Adjusted R-square	0.439			

Note: ***, ** and * Denote rejection of null hypothesis at 1, 5 and 10% significant level

Source: Author's Computation (2019)

With regard to non-accounting control system, there exist a positive relationship between fit of Non-accounting control and performance, since the estimated coefficient on $/e^2/$ is 0.018 (=t-value=0.125,P-value>0.050).But this was not significant as shown in table 4.25. Therefore, this study fails to reject the hypothesis viii. By implication, the evidence is not enough to justify the positive relationship between degree of fit and firm performance.

4.6 Summary of Hypotheses Tested

For the purpose of clarity, the summary of findings base on the tested hypotheses are presented in the table 4.30. Out of twenty sub-hypotheses formulated, the study findings supported twelve while, eight were not supported.

Table 4.30 Summary of Results of Hypotheses Testing on each Research Questions

S/N	Main Hypothesis	Sub-Hypothesis	Sign obtained/Significance	Remarks
1	<i>H₁</i> : Institutional pressure has no significant influence on the choice of accounting control System use by Manufacturing SMEs in Lagos State	<i>H_{1a}</i> : There is no significant relationship between the usage level of accounting controls system and provider capital pressure in manufacturing SMEs in Lagos State	+ /Not significant	Not Supported
		<i>H_{1b}</i> : There is no significant relationship between the usage level of accounting controls system and regulatory pressure in manufacturing SMEs in Lagos State	+ /Not significant	Not supported
		<i>H_{1c}</i> : There is no significant relationship between the usage level of accounting controls system and association pressure in manufacturing SMEs in Lagos State	+ /Significant	Supported
2	<i>H₂</i> : Institutional pressure has no significant influence on the choice of non-accounting control System use by Manufacturing SMEs in Lagos State	<i>H_{2a}</i> : Regulatory pressure has no significant influence on the choice of non-accounting Control System use in Manufacturing SMEs in Lagos State	+ /Significant	Supported
		<i>H_{2b}</i> : capital provider pressure has no significant influence on the choice of Control System use in Manufacturing SMEs in Lagos State	+ /Not significant	Not supported
		<i>H_{2c}</i> : Association pressure has no		

		significant influence on the choice of non-accounting controls System use in manufacturing SMEs in Lagos State	+/ Significant	Supported
3	H₃ : Internal contingencies have no significant influence on the choice of accounting control System use in Manufacturing SMEs in Lagos State	<p>H_{3a}: There is no significant relationship between accounting controls system and perceived environmental uncertainty in manufacturing SMEs in Lagos State</p> <p>H_{3b}: The relationship between accounting controls system and task uncertainty in manufacturing SMEs is not significant</p> <p>H_{3c}: The relationship between accounting controls system and firm's age is not significant</p>	<p>+/Significant</p> <p>+/Significant</p> <p>_/Not significant</p>	<p>Supported</p> <p>Supported</p> <p>Not supported</p>
4	H₄ : There is no significant relationship between non-accounting controls system and internal contingencies in manufacturing SMEs	<p>H_{4a}: There is no significant relationship between non-accounting controls system and perceived environmental uncertainty in manufacturing SMEs is not significant</p> <p>H_{4b}: There is no significant relationship between non-accounting controls and task uncertainty in Manufacturing SMEs.</p> <p>H_{4c}: The relationship between accounting controls system and firm's age is not Significant</p>	<p>+/Significant</p> <p>+/Significant</p> <p>_/Not significant</p>	<p>Supported</p> <p>Supported</p> <p>Not supported</p>
5	H₅ : Accounting control systems is not significantly affect the Performance of manufacturing SMEs	<p>H_{5a}: Planning is not associated with the Performance of manufacturing SMEs</p> <p>H_{5b}: There is no significant relationship between measurement and the Performance of</p>	<p>+/significant</p> <p>+/Not significant</p>	<p>Supported</p> <p>Not supported</p>

		<p>manufacturing SMEs</p> <p>H_{5c}: There is no significant relationship between compensation and the Performance of manufacturing SMEs</p>	+/significant	Supported
6	<p>H₆: Non-accounting control systems is not significantly associated with the Performance of manufacturing SMEs</p>	<p>H_{6a}: Structure is not associated with the Performance of manufacturing SMEs</p> <p>H_{6b}: There is no significant relationship between policies & procedures, and the Performance of manufacturing SMEs</p> <p>H_{6c}: There is no significant positive relationship between socio-cultural and the Performance of manufacturing SMEs</p>	<p>_ /Not significant</p> <p>+ /Significant</p> <p>+ /Significant</p>	<p>Not supported</p> <p>Supported</p> <p>Supported</p>
7	<p>H₇: Performance is not significantly associated with degree of fit between accounting controls system and internal contingencies</p>	<p>H₇: Performance is not significantly associated with degree of fit between accounting controls system and internal contingencies</p>	_ /Significant	Supported
8	<p>H₈: Performance is not significantly affected by the degree of fit between non-accounting controls system and internal contingencies</p>	<p>H₈: Performance is not significantly affected by the degree of fit between non-accounting controls system and internal contingencies</p>	+ /Not significant	Not supported

Source: Author's Analysis (2019)

4.7 Discussion of Findings

The study hypotheses were tested in the preceding sections. Evaluation of the findings in relation to each of the tested hypothesis is the focus of this sub-section. To achieve this, the discussion was based on each the research questions with emphasis on the research variables.

4.7.1 Influence of Institutional Pressures on the Usage level of Accounting Controls and Non-Accounting System

In order to provide answers to research questions raised, the study looks at the institutional pressures from the dimension of the three variables: regulatory pressures, association pressures and provider of capital pressures. These three variables are part of the parameter argued in the institutional theory adopted as one of the theoretical framework for this study. Accordingly, institutional theory posits that organization may decide to operate in a mimic way and/or coercive way. The first two variables relate to mimic isomorphism while the later concerns with coercive isomorphism.

The results of the study for the research question one provide evidence that association pressures, to a greater extent, influence the use of accounting control system (t-value=4.000, P-value<0.01). This implies that the sampled firm engage in the accounting controls system not purely on economic rationality or as require by their nature of operation but on the need to behave in a way that appeal to the association they belong to. In other words, the evidence suggest that as the pressure from association increase, there is likely tendency that the need to make use of accounting controls not for the purpose of influencing employee behaviors increases. The interviewed responses such as this: *So we try as much as possible not to deviate from common practices, if you don't do that you are likely to be having problem with the association.*”, confirms the prediction of institutional theory that: intra organization structure and procedures including accounting are largely shaped by institutional factors rather than cost minimizing objective. (Moll *et al.*, 2006). In essence, firms do adopt organization practices as a legitimacy tactics rather economic.

Furthermore, this finding is also in agreement with the evidence provided by Jazayeri, Wickramasinghe and Gooneratne (2011) who revealed variation in Management Accounting and Control Practices as a result of institutional pressure in two manufacturing companies in UK and Sri Lanka. It was reported that the externally imposed BSC adoption lead to internal

controversies and consequently workforce became resistive. Similarly, Gamage and Generates' (2017) empirical evidence on how organization actors change their existing Key Performance Indicator (KPI) in reference to customer specification is consistent with this research finding. Important implication that may be deduced from this finding is that the use of accounting control techniques as driven by association pressures is not diagnostic and interactive but technical. Since, the impulse to use these control is not informed by the need to achieve goal congruence but need to appeal to pressures. Consequently, organization may unnecessarily incur avoidable cost on the use of accounting control for other purposes that are not goal –congruence driven.

Although the non-significant results reported on the two institutional variables (regulatory and provider of capital) in relation to accounting controls system were not significant, the influences of these variables in other areas of operation may not be ruled out. For instance, pressures from tax and environmental authorities may also have influence on the firm behavior as well as pressures from provider of capital on the use of the organization assets.

The empirical evidence relating to research question two was that both regulatory pressures and association pressures influence the adoption and usage level of non-accounting control system among sampled firms. Specifically, the quantitative results show that regulatory pressures has positive significant relationship (t-value=2.896, P-value<0.01) with non-accounting control system. But narrative analysis of the interviewed responses fails to corroborate the quantitative evidence as indicated here: “No. periodically, NAFDAC and SON usually come here, but you know for a company like this, apart from the fact that we are certified nationally, we are also certified internationally, apart from NAFDAC certification, we have ISO certification”. With this evidence, the SMMEs manufacturing firms may be said to be partially practicing the use of non-accounting such as organization structures, policies and procedures, and socio-cultural control in line with the dictate of relevant regulatory agencies much than the nature of their operation required. This findings, therefore partially confirm the prediction of institutional theory in the area of coercive isomorphism. Essentially, the theory maintains that organization do adopt or use techniques out of the need to avoid sanctions than economic or behavioral reasons. This type of regulatory pressures do emanate in relation to the use of specific standard administrative manual. Previous empirical evidences that are consistent with this finding were that of Dambin *et al.*,(2007) and Ezzamel *et al.*, (2012).The evidence on the relationship between association

pressures and non-accounting controls was similar to the reported evidence for accounting control system discussed above.

4.7.2 Influence of perceived environmental uncertainty, task uncertainty and firm age on the Usage level of Accounting controls System and Non-Accounting Control System

This study objective relating to the research question three and four was to provide evidences as to the argument and prediction of the contingency theory that a general strategy, structure, management practice (management control system inclusive) applicable to all organization does not exist. And therefore the best method to organize is contingency-specific. Quantitative and qualitative evidences observed in this study supported or confirmed the theory prediction to a greater extent. Concerning the relationship between PEU and the usage level of accounting control system, the quantitative results suggest a significant positive relationship between PEU and accounting control system (t-value=4.360,P -value<0.01).This implies that as the firms perceived that the environment is uncertain in term of market competition, customer and suppliers actions, the firm tend to use more of budgets, cost control and other performance measures concerning customers, operational process and innovation to gather information that can be used to influence employee behave to achieve goal congruence. Responses from the interviewed managers also complement the observed quantitative relationship as shown by this extracted responses:

“when you are in an organization like this you expect a lot of changes from customers, ranging from your pricing , your ability to deliver on time and when you talk in term of technology.”

“.....so in maintaining that standard we have to still compete with the major market itself from the north to the east to the south so we will be able to manage large number of customers. We believe the customers increase your turnover so the competition is very intense.”

Although, contingency theory prediction is non-direction, this observed evidence seems to be in tune with the previous empirical research evidences. The trend of evidences in empirical research literatures is that a firm with highly perceived environmental uncertainty engages more in the usage of very broad management accounting control system. For instance in developed countries, research evidences of Ahren and Chapman (2004), Tillema (2005), Hung (2007) and Bedford et al., (2016) revealed positive relationship between PEU and Accounting control system. Similarly in developing countries and Nigeria, There are previous research evidences showing positive

relationship between PEU and accounting control system. Recent studies among were that of Fuadah *et al.*, (2014); Al-mawali (2015); El-shishini (2017); Haedr *et al.*,(2017) and in Nigeria Ajibolade (2013) and Ogunsiji *et al.*,(2013). Indeed, the review of literatures conducted on contingency-based management control research for over twenty years by Chenhall in 2003 suggested that the more hostile and turbulent the external environment, the greater the reliance on formal control and emphasis on traditional budget. And that for firm's MCS to focus on accounting controls in an uncertain environment, emphasis must also be placed on flexible, interpersonal interactions which is the hallmark of non-accounting controls. One may therefore argue that, for firm to achieve optimal use of Control techniques as monitoring devices such that the residual agency cost can be reduced, as predicted by agency theory, the combined use of accounting and non-accounting controls system become inevitable in a highly hostile and turbulent environment, an aspect of PEU.

Similar result was also obtained for the relationship between TU and accounting control system. Specifically, empirical evidences shows a positive relationship between TU and accounting control system (t-value=3.223, P-value<0.01). Interview evidences was not different from the reported quantitative fact based on the common responses of the managers like this: *We have qualitative areas which he will be tested and we have and quantitative, those that can be measure by mass, that this is what you are supposed to achieve and this is what you have been able to achieve. It is measurable and there are some that are not measurable, those are the one we call qualitative.* This means that as the perceived inability to predict the subordinate performance outcome and programme their actions increases, the tendency to lay more emphasis on the use of accounting control increase. This result is also aligning with contingency theory's argument that MCS use should contingency-specific but at variance with previous empirical evidences. In deed the proposition of Chenhall (2003) based on his review earlier mentioned, was that the higher the level of TU the more informal controls including less reliance accounting performance measures. In other word, relationship between TU and accounting control supposed to be negative instead of positive relationship observed in this study. Studies that had reported evidences of negative relationship were: Dittillo (2004) whose study revealed that the higher the cognitional complexity, a dimension of task uncertainty, the less reliance on the use of formal control; Chong (2004) and Wolkinazari (2012) similarly revealed that high task uncertainty is negatively related to the usage level of accounting control system. The observed evidence on the

relationship between TU and accounting control system is suggestive of the use of accounting control regardless of the level of TU in SMEs manufacturing firm and this may impair the achievement of optimal control use that may reduce agency residual cost.

For the firms' age as contingency factor, the study reported a non-significant negative relationship with the accounting control. This implies that there was no enough evidence to confirm the extent to which the firm's level of maturity influence the usage level of accounting control system. Indeed previous empirical evidences like that of Hutzschenreuter's (2009) study did not support the argument that the usage level of accounting control system is stronger in older firm than younger firm, while Hui et al., (2013) reported that the beneficial effect of MCS-accounting usage was stronger in older firm. These mixed findings show that the relationship between firm's age and Accounting control system seems not to clear. However, the common responses of some interviewed managers shed more light on how age play role in the selection of control techniques. This is indicated as follow: *with the numbers of years this company have spent in this business, I can say that we adopt some control techniques in early life of the companies but because of size and complexity, some control techniques need to be introduced to cope with our dynamics. For instance, this company takes training as an important factor to motivate our employees now than when the company was young.*

The results of the relationship between PEU, TU, firm's age and non-accounting control possess the same trend with that of non-accounting control but with different implication. With regard to the relationship between PEU and non-accounting control system, the significant positive relationship (t-value=6.583, P-value<0.01) confirm the need for the joint use of accounting and non-accounting control system argued by Chenhall (2003). In essence, the optimum benefits of MCS are achievable in a condition of highly perceived environmental uncertainty, if the company do engage in the use of broad MCS that contain both the accounting and non-accounting control techniques. This observation is also in line with the prediction of contingency theory that nature and situation of organization characteristics determine the type of organization practices to be adopted. Previous empirical evidences in this line of observation were that of Janke, Mahlendorf and Weber's (2014) study whose finding support a positive effect of the interactive use of MCS on senior manager's perception of negative external crisis effect and

Samagio, Crespo and Rodrigues (2017) with evidence that internal and external contingencies factors explain the use of MCS.

The relationship between TU and non-accounting control systems was also positively significant (t-value=6.993, P-value <0.01) indicating that firm's usage of non-accounting control system, such policies and procedures, belief system, socialization, selection and social control, is driven by the extent to which the subordinate tasks are not predictable. In this instance, evidences reported by Dittilo (2004), Chong (2004) and Wolkinazari (2012) concurred with this observation. In general terms, these previous empirical evidences revealed that as the activities or task of the employees or subordinates are not highly predictable, only the extensive use of non-accounting control is highly beneficial in term of reduction in residual agency costs. On the relationship between firm's age and non-accounting control system, the reported negative relationship was also not significant. As observed above, it is suggestive that firm's level of maturity bears no influence on the extent to which non-accounting control techniques are being used. However, firms may be using the control techniques for other purpose rather than behavioral influence

4.7.3 Influence of Accounting control and Non-Accounting Control Systems on Firm Performance

Research questions five and six was put forward to address the study's objectives on the extent to which the variation in firm performance can be explained by the adoption of various accounting and non-accounting control techniques: planning, measurement, compensation, structure, policies and procedures, socio-cultural controls. To a large extent, the interviewed managers expressed positively that firm performances are enhances through the use of various control techniques. However, quantitative evidences reveal the individual impact of each control techniques on performance.

The compensation/reward, an accounting control technique, seems to explain partial variation in firm performance positive, since its coefficient in the structural model of the PLS was positive and significant with moderate effect size (t-value=2.573, P-value<0.05 and $f^2=0.040$). This implies the subordinate act upon the incentive system to pursue organization goal in a way that enhance goal congruence and effect improve performance of the organization. One may infer that high usage level of both subjective and objective reward system as a behavioral influencing

technique has potency to translate to enhanced organization performance. This finding is consistent with the evidences of previous studies reviewed in chapter two of this work. Recent few works among them were: Oladipo *et al.*, (2008); Coker (2012); Ejumudo (2014); Olanye *et al.*, (2015) and Catherine (2016) all reported positive impact of compensation on firm performance. In line with the prediction of agency theory, this finding shows the effectiveness of incentive system in reducing agency problems.

How the use of measurement system such as budget, cost control and other accounting performance evaluation techniques influence organization performance was not quantitatively confirmed in this study given the coefficient of measurement controls in the structural model. Specifically, the results revealed positive relationship that was not significant, indicating that the use of measurement control is neither associated with an increase or decrease in company performance. This implies the use of measurement control by SMEs needs to be at minimum level since its increased usage would not translate to optimum company performance. This will prevent unnecessary expenditure on measurement control architectures. However, the observed finding seem not to align with previous empirical evidences as much of these studies reported significant positive relationship between budget, cost and other accounting-based performance measurement. In these instances, the works of King *et al.*, (2010), Silva *et al.*,(2012), Osundina *et al.*, (2012), Siyanbola (2013) budget and performance revealed positive relationship while on cost control, an aspect of measurement control, the studies of Oluwagbenga *et al.*,(2014), Okoye *et al.*,(2017) and Akeem (2017) gave evidences of positive relationship. Careful analysis of these studies revealed that their focuses were not on behavioral uses of measurement control techniques but on technical application. Qualitative data extracted from the transcribed responses supports this argument as highlighted thus: *Well, if I understand your question, I will say this company prepare budget to guide our operation and to know where we are going, while cost control is for the achievement of efficiency in our operation.* One may therefore attribute the disparity between this study findings and previous empirical evidences to the identified trend. Another potential reason for this finding is that measurement control is associated with high control costs for monitoring employee in detail. In effect, the control cost surpasses the benefit. This may be critical of SMEs whose resources are minimum in nature.

This study also provided evidences on the relationship between planning and firm performance. In a more specific term, investigation on how detail and participative is the planning process to influence subordinate and in effect influence firm performance revealed a significant positive relationship between the two variables (t-value=4.882, $P < 0.01$, $f^2 = 0.043$). In essence, the use of planning in a more detailed and participative seem to have potency in enhancing business performance. The qualitative evidence such as this common response among the interviewed managers : “it is helping positively, you know once there is projection of what you want to do, you can now put mind into, are we getting closer or not it would have been worst if there is nothing like planning that means we are just working arbitrarily and that means if we make it, it is by mistake or by luck. Like I told you we do a weekly presentation of the performance.....”, support the quantitative result Through this, one may infer that employees buy in the organization goals and thus motivated in the discharge of their responsibility. Few available studies on the planning as an accounting controls techniques support this finding: Bedford *et al.*,(2015) and Bedford *et al.*,(2016).

In relation to non-accounting control system, two control elements, Policies and procedures, and socio-cultural were reported to have significant positive relationship with performance. The use of policies and procedures impact positively on performance to a large extent (t-value=3.125, P-value<0.05, $f^2 = 0.050$). This result can be interpreted in a sense that the sampled SMEs influence the behavior of their subordinate by allowing them to conduct non-routine activities in a manner that gives sense of independence. In addition, the result also suggests the use of code of conduct to define appropriate behavior, communication of risk and activities to be avoided by subordinates and the extensive use of pre-action review to access project undertaken by subordinate. All these are the sub-control techniques that seem to be in use to warrant the observed relationship between policies and procedures, and performance. The finding is consistent with evidences provided by Davila *et al.*, (2007) and Munster Mann (2010).

As earlier pointed, socio-cultural control also impact positively on firm performance. Out of all the control techniques studies, socio-cultural control has the highest positive impact on performance based on the quantitative results (t-value=5.732, P-value<0.05, $f^2 = 0.157$). This implies that the sampled SMEs engage in extensive use of socio-cultural control techniques to drive their goal congruence. By implication, the recruitment and selection procedures seem to be

extensively in use as well as other elements of socio-cultural elements such regular training of employees, mission and vision statement and communication of other organizational share values. Comparing this study with previous studies, there exist consistence in their findings as Shoin *et al.*, (2014); Ployhart (2014); Deshpande (2014); Trivellas (2015); Barrick *et al.*, (2015); and Georgiadis *et al.*,(2016) empirical works reveal significant positive relationship between various form of socio-cultural controls and firm performance. By this finding, one may infer that the sampled SMEs rely more on socio-cultural control in the pursuit of goal congruence. Furthermore, this study finding conforms to the prediction of the social control theory that individual conformity with shared value (organization culture) is expected to improve motivation and indirectly impact on outcome or performance.

On the last element of non-accounting control techniques, organization structure, the report of this study shows no significant relationship with the performance ($t\text{-value}=-0.090, P\text{-value}>0.05, f^2=0.000$). This does implies non-existence of organization structure but its use in a way to achieve goal congruence and in effect enhance performance was not supported by this empirical evidence. Indeed, findings from qualitative investigation corroborate the use of organization structure for delineation of function as extracted from the transcript as follow: *if you have good structure you will not have problem, we have research and development organization that takes care of benchmarking, market survey for new products, the way our competitors are doing, the market share all those thing. We have internal audit department, where we deal with risk based audit, we look at all those risk.* This finding is at variance with previous studies of Fadeyi *et al.*, (2015); Thomas (2015); Shabir (2016); and Okafor *et al.*, (2017) with evidences of positive relationship between organization structure and performance. It is noteworthy that these previous studies focus on large scale companies. One may attribute this pattern to less use of organization structure such that subordinate or lower level employees involve in various strategic and tactical decisions, unlike large scale companies. In essence, it may be that the organization structure is only being used to delineate responsibilities.

Overall, the predictive relevance and fitness of the structural model as indicated by prognostic relevance (q^2) of 14.9% and R-square of 0.364 suggests that use of management control techniques, to a large extent, impact on company performance. The degree of variation in firm performance explained by management control techniques confirm the prediction of the agency

theory and social control theory that as long as the residual agency cost reduces through the use of various control techniques, firm may experience improved performance. This is not to say that other factors do not contribute to company performance since the structural model is partial in nature.

4.7.4 Influence of Fit between Management Control System and Internal Contingencies on Performance

The debate in the literatures and argument of contingency theory that for firm to achieve optimal performance, it should thrive to design its control system architecture in alignment with its peculiar contingency factors motivate the need to provide answer to research questions seven and eight. Using the contingency approach of Gerdin and Greeve (2004), the study measured control fit through model residuals (e) of equations 4 and 5 in chapter three. The empirical evidences provided by this study shows that as the extent of lack of fit between accounting control system and contingency factors increases, business performance decreases (t -value=-2.290, P -value < 0.01) while such relationship was not supported by the evidences on non-accounting control practices.

The reported negative relationship between lack of fit and performance implies that small and medium business that able to achieve best fit continue to survive at higher level of performance while business that are not able to achieve best fit also continue to survive but at lower level of performance. Thus, one may infer that lack of fit between accounting control system and contingency factors may impair company performance. These observed evidences are in agreement with Meyer and Zucker (1989) and King *et al.*, (2010) who argued that lack of fit may portend harmful effect. The non-significant positive relationship (t -value=0.125, P -value > 0.05) between lack of fit and performance may attributed to a fact that non-accounting control system has the potency of being used jointly with accounting control system to ameliorate the effect of lack of fit that may exist between accounting control system and contingency factors.

CHAPTER FIVE SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents final aspect of this empirical investigation on the relationship between management control system and firm performance among Small and Medium Manufacturing Enterprises in the form of summary of the empirical works, conclusions reached based on study findings and corresponding recommendations. In addition, the chapter also details contribution of the study to both knowledge frontiers and practices, limitation of the study and suggestion for further studies.

5.1 Summary

Management control constitutes one of the critical functions of management in organisation. However, little or no attention has been given to design and use of this very important function of management. Much of the mechanisms or techniques acknowledged to be in use to carryout management control function are limited to accounting-based control techniques which have been criticized to have behavioral dysfunctional consequences such as lack of direction, efforts aversion and other self-interested behaviours. To prevent or avert these dysfunctional behaviour, appropriate design that takes into account relevant contingency factors, such as nature of environment and subordinate tasks is very essentials. Notwithstanding the critical roles of management control function, extant literatures show that much empirical works on design and use of MCS are substantially focused on large organisation, leaving the MCS practice of SMEs at its own mercy.

In view of the foregoing, the thesis was motivated to investigate how Small and Medium Manufacturing Enterprises engage in the practice of MCS in context of relevant contingency factors. In order to gain in-depth insight and provide empirical evidences on the practice, the study raises eight research questions and its corresponding objectives in chapter one. The first and second research questions border on how institutional pressures, a form of contingency factors, influence the use of accounting and non-accounting control system while the third and fourth questions investigate the relationship between accounting and non –accounting control system and internal contingencies of environment ,task uncertainty and firm age. For the fifth and sixth questions, the study aims to provide answers to how the management control techniques (planning, measurement, compensation, structure, policies and procedures, and socio-

cultural controls) use by management to carryout control function impact on performance. The last two research questions relate to the issue of appropriate design which has been described in the literatures as problem of misfit. Specifically, the study sought to test the impact of fit between accounting and non-accounting control systems and internal contingency factors on performance.

We arrived at the above research questions and research hypothesis after extensive review of literatures on relevant key concepts, theories and previous empirical works. The conceptual review allows us to have conceptual domain of the key variables in the research questions while the reviewed theories provide theoretical underpinning that predict relationship among the key variables. Previous findings relevant to the research question formed the basis of the research hypothesis raised in chapter one.

The study employed both quantitative and qualitative method to provide evidences that formed the basis of these study findings. Validated instrument used in contingency-based MCs study was adapted to collect quantitative data. In relation to qualitative method, the thesis conducted interview with very reasonable number of managers in the sampled companies. The obtained quantitative and qualitative data was subjected to analysis using ordinary least square regression analysis, partial least squares (PLS-SEM) and narrative analysis respectively, to arrive at the various findings summarized in the subsequent paragraphs.

In relation to objectives one, the results provide evidence that association pressures, to a greater extent, influence the use of accounting control system (t -value=4.000, $P < 0.01$).By implication, the finding suggests that as the pressure from association increase, there is likely tendency that need to make use of accounting controls not for the purpose of influencing employee behaviors increases. But the results were not significant to reject the sub-null hypothesis on regulatory and provider of capital pressures.

The empirical finding relating to research question two was that both regulatory pressures and association pressures influence the adoption and usage level of non-accounting control system among sampled firms. Specifically, the quantitative results show that regulatory pressures has positive significant relationship (t -value=2.896, $P < 0.01$) with non-accounting control system.

No significant evidence was reported on the relationship between provider of capital pressures and non-accounting control system, leading to non-rejection of sub-hypothesis 2b.

Findings on research question three revealed a significant positive relationship between PEU and accounting control system ($t\text{-value}=4.360, P<0.05$). This implies that as the firms perceived that the environment is uncertain in terms of market competition, customer and suppliers actions, the firm tends to use more of budgets, cost control and other performance measures concerning customers, operational process and innovation to gather information that can be used to influence employee behavior to achieve goal congruence. Similar result was also obtained for the relationship between TU and accounting control system. Specifically, empirical evidence shows a positive relationship between TU and accounting control system ($T\text{-value}=3.223, P<0.01$). This means that as the perceived inability to predict the subordinate performance outcome and programming of their actions increases, the tendency to lay more emphasis on the use of accounting control increases. However, for the firms' age as a contingency factor, the study reported a non-significant negative relationship with the accounting control. This implies that there was not enough evidence to confirm the extent to which the firm's level of maturity influences the usage level of accounting control system.

The results of the relationship between PEU, TU, firm's age and non-accounting control which was the focus of research question four, were of the same trend with that of accounting control but with different implications. With regard to the relationship between PEU and non-accounting control system, the significant positive relationship ($t\text{-value}=6.583, P<0.05$) confirms the need for the joint use of accounting and non-accounting control systems. The relationship between TU and non-accounting control systems was also positively significant ($t\text{-value}=6.993, P<0.05$) indicating that firm's usage of non-accounting control system, such as policies and procedures, belief system, socialization, selection and social control, is driven by the extent to which the subordinates' tasks are not predictable. On the relationship between firm's age and non-accounting control system, the reported negative relationship was also not significant. As observed above, it is suggestive that firm's level of maturity bears no influence on the extent to which non-accounting control techniques are being used.

Research question five was put forward to address the study's objective on the extent to which the variation in firms' performance can be explained by the adoption of various accounting

control techniques: planning, measurement, compensation. To a large extent, the interviewed managers expressed positively that firm performances are enhanced through the use of various control techniques. However, quantitative evidences reveal the individual impact of each control techniques on performance. The compensation/reward, an accounting control technique, seems to explain partial variation in firm performance, since its coefficient in the structural model of the PLS was positive and significant with moderate effect size (t-value=2.573, $P < 0.05$ and $f^2 = 0.040$). However, the use of measurement system such as budget, cost control and other accounting performance evaluation techniques influence organization performance was not quantitatively confirmed in this study. Specifically, the results revealed positive relationship that was not significant, indicating that the use of measurement control is neither associated with an increase or decrease in company performance. However, The study provides evidences of a significant positive relationship between planning and firm performance (t-value=4.882, $P < 0.01$, $f^2 = 0.043$).

In relation to research question six which was centered on the relationship between non-accounting control system and performance, two control elements, Policies and procedures, and socio-cultural were reported to have significant positive relationship with performance. The use of policies and procedures impact positively on performance to a large extent (T-value=3.125, P-value < 0.01 , $f^2 = 0.050$). Socio-cultural control also impact positively on firm performance. Out of all the control techniques studies, socio-cultural control has the highest positive impact on performance based on the quantitative results (t-value=5.732, $P < 0.01$, $f^2 = 0.157$). On the last element of non-accounting control techniques, organization structure, the report of this study shows no significant relationship with the performance (T-value=0.090, $P > 0.05$, $f^2 = 0.000$).

Research questions seven and eight in response to the argument of contingency theory that for firm to achieve optimal performance, it should thrive to design its control system architecture in alignment with its peculiar contingency factors. Findings show that as the extent of lack of fit between accounting control system and contingency factors increases, business performance decreases (t-value=-2.920, $P < 0.01$). The reported negative relationship between lack of fit and performance implies that small and medium business that able to achieve best fit continue to survive at higher level of performance while business that are unable to achieve best fit also continue to survive but at lower level of performance. For the non-accounting control system,

non-significant positive relationship ($t\text{-value}=0.125$, $P > 0.05$) between lack of fit and performance was reported. Thus, the study failed to accept hypothesis seven but failed to reject hypothesis eight.

5.2 Conclusion

This study investigate the practices of management control system of Small and Medium Manufacturing Enterprises in Lagos State, Nigeria with the purposes of provide evidences on the influence of contingency factors on the choice of management control techniques, and the effect of management control system on firm performance. The findings of the study revealed that some contingency factors influence the choice of MCS practices and that substantial numbers of management control mechanisms investigated do explain variation in performance of the sampled SMEs.

In view of the reported findings, the study arrived at the conclusions discussed as follows:

- i. management controls techniques use by small and medium manufacturing enterprises are not necessarily informed by economic needs but by pressures from their peers. Specifically, much of the chosen accounting control techniques are driven by the prevailing industry practices dictated by relevant association they belong to.
- ii. to a large extent, small and medium manufacturing enterprises also make use of non-accounting control techniques for the purpose of satisfying regulatory demand, even where such practices may not be effective to achieve goal congruence.
- iii. the managers' perceptions on how environment is uncertain also contribute to the use of management control techniques. Managers seems to employed budget, cost control and other performance measures to monitor virtually all tasks where the market and customers' behavior are highly unpredictable.
- iv. firms also engage in the practice of accounting controls system in a situation where the subordinate's action is not highly measurable and predictable.
- v. there was appropriate adoption of non-accounting control techniques in line with the level at which environment is perceived to be uncertain as well as subordinate task are not predictable and measurable.

- vi. the use of planning to develop strategy and monitor employees has capacity to influence the performance of small and medium manufacturing enterprises.
- vii. performance of small and medium manufacturing enterprises is driven to a greater extent by the use compensation and reward system relative to subordinate performance.
- viii. the use of standardized procedures, codes of conduct, appropriate action and pre-action review to monitor and influence subordinate driven the firms' performance.
- ix. use of extensive recruitment and selection procedures as a socio-cultural control technique considerably has effect on the improved organization performance.
- x. communication of core value through codified formal document, mission and vision statement contribute positively the performance of the sampled firms.
- xi. there exist a certain degree of lack of fit between accounting control system and contingency factors lead to sub-optimality in term of the firms' performance. By this, avoidable expenditures are being incurred in design of MCS among the sampled firms.

5.3 Recommendation

In line with the study findings and conclusions reached in the preceding sections, this thesis put the following recommendations guide in policy formulation and firm performance control.

- i. Given the conclusion reach on the effect of association pressures, managers should try as much as possible to resist pressures that can encourage the adoption techniques that are not in tune with their peculiarities, in order to drive maximum benefits from the behavioral use of budget and other accounting control techniques;
- ii. Based on the inferred conclusion on environmental uncertainty, firms should develop strategy that collects information about its environment in term of market competition, customer's behaviours and supplier relation. This will assist management to design MCs that is context specific;
- iii. Since the finding and conclusion shows Firms engage in the practice of accounting controls system without consideration of how measurable and predictable are subordinate's

action ,Small and medium manufacturing enterprises should design its performance measurement of its subordinate in line with the extent to which subordinates' task and outcome are predictable and measurable;

- iv. As the conclusion indicated that planning play influential roles in enhancing firm performance, managers should ensure that all concerned employees' input are considered in the planning process in order to achieve the use of planning as a form of accounting control techniques;
- v. Accounting control techniques such as budget, cost controls and other accounting performance measure should be cautiously use for the purpose that can be bring benefit. A situation where such control is fit for other use rather to influence employees' behaviour, manager should stick to such needs to avoid unnecessary expenditures;
- vi. Reward and compensation system as a form of management control technique should be designed in a robust way that will entail both individual and group reward, and of course fixed and variable as reflected in the conclusion on the effect of Compensation ,a form of control technique;
- vii. Since the study conclusion affirmed the potency of policies and procedures in driven organization performance, maximum use of standardized procedures, codes of conduct and allowance for subordinate to conduct non-routine activities should be developed and encouraged as non-accounting control mechanisms as a means of driven organization effectiveness and performance;
- viii. According to the conclusion on the relationship between socio-cultural control techniques and firm performance, a system of recruitment and selection through which organization core values can be communicated to prospective employees should encouraged. This will eventually encourage selected employees to align his or her personal goals to that of the organization;
- ix. Also in line with observed conclusion on socio-cultural control, regular training and social interaction can be ritualized as a socio-cultural control techniques as a means of achieving goal congruence;

- x. Lack of fit between management control system and contingency factors can be prevented or reduced through the combined use of accounting and non-accounting techniques to reduce unnecessary expenditure as conclude by this thesis.

5.4 Contribution to Knowledge

This study makes valuable contribution to field of management accounting and control systems from the point of view of concept, theory and methodology.

5.4.1 Conceptual contributions

- i. The study provides insight to the management control practices of SMEs from diagnostic and interactive use of accounting control system. This is first time conceptual image of this nature is integrated into the investigative management control system of SMMEs.
- ii. Hutzschenreuter (2009) had called for integration of organization structure as a management control mechanism instead of contingency factor, a way of broadens the framework of Management control system. This study has answered this call since the organization structure was one of the non-accounting control techniques used in this thesis.
- iii. For the first time ever, this study investigates management control practices of SMEs in Nigeria using the framework of Bedford and Malmi (2008). Previous studies had adopted this framework in large organization settings, but this validate the framework from small and medium business perspective.
- iv. For the first time, management control practice was studied from the perspective of cultural control, a neglected aspect of control from Nigeria perspective.

5.4.2 Theoretical contributions

- i. Although, agency theory has been used in previous researches on management control, critics of the theory are of the opinion that the theory is less concerned with the complexity of organization. This study relatively addresses the shortcoming by complementing agency theory with the social control theory. Specifically, the theory focuses on the complex nature of social relation in an organization.

ii. Recent argument in the literature (Chenhall, 2003; Ahmed & Mohammed, 2017) that management techniques and practices are sometime adopted in an organization not out of rationality but need to be similar to other organization or comply with pressures has been empirically confirmed by this study through the lens of institutional theory.

5.4.3 Methodological contributions

i. For the first time, in Nigerian context, empirical research on management control practices of SMEs was carried out through the use of triangulation method (combination of both quantitative and qualitative). This method has enriched the nature of research findings in the field of management accounting and control.

ii. Much of the previous empirical works on MCS employed Ordinary Least Square as estimation technique which does not have the capacity to capture the relationship between latent and manifest variable. This study makes use of the method of Partial Least Square, a robust technique that captures the characteristics of both latent and manifest variable into the estimation process.

5.4.4 Contribution to Practice and Policy

i. The result of this study provides insights that may be useful to accounting practitioners and business managers, particularly on how to use socio-cultural techniques to influence employees' behaviour.

ii. The findings may also be useful to relevant government agency concern with SMEs growth and development. The agency can use the findings on contingency-fit to formulate policy on management control practice of SMEs. For example, SMEDAN can formulate policy on the need for SMEs to develop a comprehensive policies and procedures as pre-requisite to access any intervention fund.

5.5 Limitation to the Study

- i. From a methodological point of view, caution should be taken in generalizing the study findings to other areas not covered by this thesis. As such, the findings are most applicable to the manufacturing industry of small and medium scale.
- ii. There exists a tendency for survivorship bias in the collected data, as this study did not use companies that have ceased to exist due to inappropriate management control. However, since this study was structured to improve SMMEs performance and not to identify causes of failure, threat of survivorship bias is not material to its findings.
- iii. The study findings may not be generalized across countries, given the issue of national differences in culture. However, this has no effect on this study finding, since the research site and sampled companies are all located in Nigeria

5.6 Suggestion for Further Studies

- i. Future studies may be conducted on sectorial analysis of management control to enhance the generalizability of findings on management control practices.
- ii. A case-study analysis of failed ventures' management control practices may be carried for comparison with survival companies' MCS practices.
- iii. Future studies may integrate national culture as a contingency factor to allow for more robust generalization across countries and continents.

REFERENCES

- Abernethy, M. A. & Chua, W. F. (1996). A field study of control system redesign: The impact of institutional processes on strategic choice. *Contemporary Accounting Research*, 13(2), 569-606
- Abernethy, M.A. & Lillis, A.M. (1995). The impact of manufacturing flexibility on management control system design. *Journal of accounting, organizations and society*, 20(4), 241-258.
- Abernethy, M.A. & Vagnoni, E., (2004). Power, organization design and managerial behavior. *Accounting, organizations and society*, 29(3/4), 207-225.
- Abernethy, M.A., & Stoelwinder, J.U., (1991). Budget use, task uncertainty, system goal orientation and subunit performance: a test of the 'fit' hypothesis in not-for-profit hospitals. *Journal of Accounting, Organizations and Society*, 16, 105–120.
- Adebisi, S.A. & Oladipo, A.O. (2015). Reward system as strategy for improving employees' productivity in Nigeria. *Revista Eletrônica de Estratégia & Negócios, Florianópolis*, 8(1), 57-84.
- Agbejule, A., (2005). The relationship between management accounting systems and perceived environmental uncertainty on managerial performance: A research note. *Accounting and Business Research*, 35(4), 295–305
- Agrawal, P. (2002). Double moral hazard, monitoring and the nature of contracts. *Journal of Economics*, 75 (1), 33-61
- Ahrens, T. & Khalifa, R., (2015). The impact of regulation on management control, *Qualitative research on accounting and management*, 12(2), 106-126
- Ajibolade, S. O. (2013). Management accounting systems design and company performance in Nigerian manufacturing companies: A contingency theory perspective. *International Journal of Business and Social Research*, 14, 228–244
- Ajibolade, S.O. (2013). Drivers of choice of management accounting system designs in Nigerian manufacturing companies. *International Journal of Business and Social Research*, 3(9), 45 – 57.
- Ajose, S. (2010), SMEs and the tough terrain of business, personal finance and entrepreneurship. Publication of the Nation Newspaper, Vol.5, No. 1547, Oct. 13, p 38.
- Akabueze, B. (2002). Financing Small and Medium Enterprises (SMEs): The small and medium industries equity investment scheme (SMIEIS) option. Paper delivered at e-week 2002 seminar . MUSON centre, Lagos, Nigeria, 11-14 February, 2002.
- Akeem, L.B. (2017). Effect of cost control and cost reduction techniques in organizational performance. *Journal of International Business and Management*, 14(3), 19-26.
- Alao, E. (2013). Strategic decision making, balanced scorecard profitability: issues and challenges. *International Journal of Accounting Research*, 1(1), 20-31.
- Al-mawali, H. & Al-Shammari, H. (2015). Strategic management accounting usage, environmental uncertainty and organizational performance. *Journal of Business and Management*, 7(18), 219–227.

- Alvesson, M. & Kärreman, D. (2004). Interfaces of control, technocratic and socio-ideological control in a global management consultancy firm. *Accounting, Organizations and Society*, 29(3-4), 423-444.
- Anthony, R. N. & Govindarajan, V. (2007). *Management Control Systems*. 12th ed. New York: Irwin/McGrawHill.
- Anthony, R. N. (1965). *Planning and control systems: a framework for analysis*. Boston: Division of Research, Graduate School of Business Administration, Harvard University.
- Aquaah, M., (2013). Management control systems, business strategy and performance: a comparative analysis of family and non-family business in a transition economy. *Journal of family business strategy*, 4, 131-146
- Arjalies, D.L & Mudy, J., (2014). The role of management control system to manage CSR: A level of control perspective. *Management accounting research*, 5, 284-300.
- Asogwa, I. E., Etim, E. O., & Etukafia, N. I. (2017). Cost control measures and funds management in tertiary institutions in nigeria: an impact analysis. *Journal of Economics, Management and Trade*, 18(2), 1-14.
- Atkinson, A.A., Kaplan, R.S., Young, M.S. (2001) *Management Accounting*. (4th edition). Upper Saddle River: Pearson Education International.
- Auzair, M.D. & Amir A.M., (2017); Strategic priorities of Malaysian hotels: The role of management control bureaucracy. *African journal of Accounting and governance* 8, 1-12. <http://doi.org/w.10.17576/ajag-2017-08-01>
- Barrick, M.R., Thurgood, G.R., Smith, T.A., Courtright, S.H. (2015). Collective organizational engagement: linking motivational antecedents, strategic implementation, and firm performance. *Academy of Management Journal*, 58(1), 111–135.
- Bart, C. K. & Baetz, M. C. (1998). The relationship between mission statements and firm performance: An exploratory study. *Journal of Management Studies*, 35(6), 823-853.
- Bartlett, C. A., & Ghoshal, S. (1993). Beyond the M-form: towards a managerial theory of the firm. *Strategic Management Journal*, 14, 23–46.
- Bedford, D. S. (2015). Management control systems across different modes of innovation : Implications for firm performance. *Management Accounting Research*. <https://doi.org/10.1016/j.mar.2015.04.003>
- Bedford, D. S., & Malmi, T. (2015). Configurations of control: An exploratory analysis. *Management Accounting Research*, 27, 2-26.
- Bedford, D. S., Bednarek, P., Dossi, A., Ditillo, A., Gosselin, M., Johanson, D., & Johanson, D. (2016). The impact of participation in strategic planning and action planning on management control effectiveness : An analysis of independent and joint effects. *Journal of Accounting and Auditing*, 11, 1–25. WORKING PAPER
- Bedford, D. S., Malmi, T., & Sandelin, M. (2016). Accounting, organizations and society management control effectiveness and strategy : An empirical analysis of packages and systems. *Accounting, Organizations and Society*, 51, 12–28.
- Belkaou, A.R. (2002). *Behavioural management accounting*. London. Quorum books, Westport.

- Bhargava, S. (1994). Profit Sharing and the Financial Performance of Companies: Evidence
- Bisbe, J., Batista-Foguet, J.M., and Chenhall, R., (2007). Defining management accounting constructs: a methodological note on the risks of conceptual misspecification. *Journal of Accounting, Organizations and Society*, 32, 789-820.
- Bonner, S.E. and Sprinkle, G.B. (2002). The effects of monetary incentives on effort and task performance: theories, evidence, and a framework for research. *Journal of Accounting, Organizations and Society*, 27, 303-345.
- Bouten, L. (2016). Let's do it safely: How Altrad Balliauw configured a package of control systems, 1–9. <https://doi.org/10.1016/j.jclepro.2016.01.105>
- Brews, P.J., & Hunt, M.R., (1999). Learning to plan and planning to learn: resolving the planning school/learning school debate. *Strategic Management Journal*, 20, 889–913
- Brownell, P., Merchant, K.A., (1990). The budgetary and performance influences of product standardization and manufacturing process automation. *Journal of Accounting Research*, 28(2), 388–397.
- Bruns, W.J. & Waterhouse, J.H., (1975). Budgetary control and organizational structure. *Journal of Accounting Research*, 13, 177-203.
- Buathong, S., & Bangchokdee, S. (2016). The relationship between task uncertainty and managers' use of balanced scorecard in hospitals in Southern Thailand, 463–470
- Budapest, 2012; The effect of contingency factors on the use of manufacturing practices and operations performance. A P.hD thesis submitted to Corvinus University of Budapest
- Burns, J. and Scapens, R.W., (2000). Conceptualizing management accounting change: An institutional framework. *Journal of Management Accounting Research*, 11, 3-25.
- Burns, T. –Stalker, G. M. (1961): *The Management of Innovation*. London. Tavistock.
- Chandler, G. N. and Hanks, S. H. (1994). Market attractiveness, resource-based capabilities, venture strategies and venture performance. *Journal of Business Venturing*, 9(4), 331-349.
- Chapman, C.S., (1997). Reflections on a contingent view of accounting. *Journal of Accounting, Organizations and Society*, 22, 189–205.
- Chatman, J. A., & Jehn, K. A. (1994). Assessing the relationship between industry characteristics and organizational culture: How different can you be? *The Academy of Management Journal*, 37(3), 522-553.
- Chenhall, R. H., & Morris, D. (1995). Organic decision and communication processes and management accounting systems in entrepreneurial and conservative business organizations. *Omega, International Journal of Management Science*, 23(5), 485–497.
- Chenhall, R. H., & Smith, D., (2011). A review of Australian management accounting research: 1980–2009. *Journal of Accounting and Finance*, 51, 173–206.
- Chenhall, R. H., Morris, D., 1986. The impact of structure, environment, and interdependence on the perceived usefulness of management accounting systems. *The Accounting Review*, 61(1),16–35

- Chenhall, R., (2007). Theorizing contingencies in management control systems research. In: Chapman, C.S., Hopwood, A.G., Shields, M.D. (Eds.), *Handbook of Management Accounting Research*. Elsevier, 163–205.
- Chenhall, R.H., (2003). Management control systems design within its organizational context: findings from contingency-based research and directions for the future. *Accounting, Organizations and Society*, 28, 127–168.
- Child, J. (1972): Organizational structure, environment and performance: The role of strategic choice. *Sociology*, 6(1), 1-22.
- Chong, V., Chong, K.M., (1997). Strategic choices, environmental uncertainty and performance: A note on the intervening role of management accounting systems. *Accounting and Business Research*, 27, 268–276.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Collier, P.M., (2005). Entrepreneurial control and the construction of a relevant accounting. *Journal of Management and Accounting Research*, 16(3), 321–339.
- Creswell, J.W. & Clark V.L. (2011). *Designing and conducting mixed method research*. London. SAGE.
- Cugueró-escofet, N., & Rosanas, J. M. (2013). The just design and use of management control systems as requirements for goal congruence. *Management Accounting Research*, 24(1), 23–40. <https://doi.org/10.1016/j.mar.2012.11.001>
- Damayanthi, S., Gamage, D., & Gooneratne, T. (2017). Management controls in an apparel group: an institutional theory perspective. <https://doi.org/10.1108/JAAR-09-2015-0075>
- Dambrin, C., Lambert, C. and Sponem, S. (2007). Control and Change – Analysing the process of Institutionalization’, *Management Accounting Research*, 18, 172-208.
- Davila, A. and Foster, G. (2007). Management control systems in early-stage startup companies. *The Accounting Review*, 82(4), 907-937
- Davila, A., & Foster, G. (2016). Management Accounting Systems Adoption Decisions : Evidence and Early-Stage / Startup Companies. *Accounting, Organizations & Society* 80(4), 1039–1068.
- Davila, T. (2005). An exploratory study on the emergence of management control systems: formalizing human resources in small growing firms. *Accounting, Organizations and Society*, 30 (3), 223-248.
- Diefenbach, U., Wald, A., & Gleich, R. (2018). Between cost and benefit : investigating effects of cost and organisational performance. *Journal of Management Control*. 8, 23-36. <https://doi.org/10.1007/s00187-018-0261-5>
- DiMaggio, P.J., & Powell, W.W., (1983). The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147-160.

- Ditillo, A. (2004). Dealing with uncertainty in knowledge-intensive firms: The role of management control systems as knowledge integration mechanisms. *Accounting, Organizations and Society*, 29(3/4), 401-421.
- Dobák, M. (2006): *Szervezetiformákésvezetés*. [Organizational types and management] AkadémiaiKiadó, Budapest
- Donaldson, L. (1996): *For Positivist Organization Theory: Proving the Hard Core*. London, Great Britain. SAGE Publications.
- Donaldson, L. (2001). The contingency theory of organizational design: Issues and Challenges. *Journal of Management Accounting Research*, 19, 126–148.
- Drazin, R., & Van De Ven, A.H., (1985). Alternative forms of fit in contingency theory. *Administrative Science Quarterly*, 30(4), 514–39
- Duncan, R. B. (1972). Characteristics of organizational environments and perceived environmental uncertainty. *Administrative Science Quarterly*, 17(3), 313-327.
- Dunk, A.S., (1990). Budgetary participation, agreement on evaluation criteria and managerial performance: a research note. *Accounting, Organizations and Society*, 15(3), 171-178.
- Efendi, D., Univesirsitas, L., Ponorogo, M., & Student, D. (2016). Task uncertainty, managerial performance : the role of management accounting system in a cooperative. *Accounting, Organizations and Society*, 5(12), 1 11
- Egbunike, A.P., Ijeoma, N.B., & Ebubeogu, C.G. (2015). The use of activity based costing and balance score card for strategic performance measurement: perception of chartered accountants in Anambra State, Nigeria. *American Journal of Economics, Finance and Management*, 1(3), 211-222.
- Egbuogu, I.O (2003). What small business entrepreneurs expect from Local Credit Agencies and International Business Facilitators. Paper presented at Bus America. A forum organized by the US commercial consulate, Lagos, Nigeria; March 3, 1-10.
- Eisenhardt. K.M. (1989). Building theories from case study research. *Academy of Management Review*, (14), 532-550.
- Ejumudo, K.B. (2014). Pay reward system management and staff performance in Nigeria: A study of the Delta State civil service. *Public Policy and Administration Research*, 4(9), 79-94.
- Ekpeyoung, D.B. & Nyong, M.O. (1992). Small and medium scale enterprises development in Nigeria. Seminar paper on economic policy, research for policy design and management in Nigeria
- El-shishini, H. M. (2017). The Use of Management Accounting Techniques at Hotels in Bahrain. *Journal of Business and Management*, 6(2), 78–89.
- Emmanuel, C., Otley, D. and Merchant, K.A. (1990). *Accounting for Management Control*. London. Chapman and Hall.
- Ezzamel, M. and Hart, H., (1987). *Advanced Management Accounting: An organizational emphasis*. London. Cassell.

- Ezzamel, M., (1990). The impact of environmental uncertainty, managerial autonomy and size on budget characteristics. *Management Accounting Research*, 1, 181–197.
- Fadeyi, O., Maduenyi, S., Oke, A.O. & Ajabge, M.A. (2015). Impact of organizational structure on organizational performance. International conference on African Development Issues, Social and Economic model for development Track, January, 2016.
- Falk, R. F. and Miller, N. B. (1992). *A primer for soft modeling*. Akron, OH: University of Akron Press.
- Fisher, J.G., (1995). Contingency-based research on management control systems: categorization by level of complexity. *Journal of Accounting Literature*, 14, 24–53.
- Flamholtz, E. G., Das, T. K., & Tsui, A. S. (1985). Toward an integrative framework of organizational control. *Accounting, Organizations and Society*, 10(1), 35–50.
- Ford, M. W., & Greer A. B. (2005). The relationship between management control system usage and planned change achievement: An exploratory study. *Management Accounting Research*, 5(1), 29–46.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18, 39–50.
- from UK. *Economic Journal*, 104(426), 1044-1056.
- Fu, W. & Deshpande, S.P. (2014). The impact of caring climate, job satisfaction, and organizational commitment on job performance of employees in a china's insurance company. *Journal of Business and Ethics* 124, 339–349.
- Fullerton, R.R., Kennedy, F.A., & Widener, S.K., (2012). Management accounting and control practices in a lean manufacturing environment. *Accounting, Organizations and Society*, 38(1), 50–71.
- Galbraith, J.K., (1973). *Designing complex organizations*. New York. Addison-Wesley.
- Gerdin, J., Greve, J., (2004). Forms of contingency fit in management accounting research—a critical review. *Accounting Organizations and Society*, 29, 303–326.
- Gerdin, J., Greve, J., (2008). The appropriateness of statistical methods for testing contingency hypotheses in management accounting research. *Accounting Organization Society*, 33 (7–8), 995–1009
- Ghobadian, A. & Gallear, D. N. (1996). Total quality management in SMEs. *Omega Journal*, 24(1), 83-106.
- Gordon, L.A., Narayanan, V.K., 1984. Management accounting systems, perceived environmental uncertainty and organization structure: an empirical investigation. *Accounting, Organizations and Society*, 9, 33–47.
- Govindarajan, V., & Gupta, A.K., (1985). 'Linking control systems to business unit strategy: impact on performance. *Accounting, Organizations and Society*, 10(1), 51-66.
- Govindarajan, V., (1986). Impact of participation in the budgetary process on managerial attitudes and performance: Decision Sciences. *Accounting Organization Society*, 10, 51-56.

- Granlund, M. & Taipaleenmäki, J. (2005). Management control and controllership in new economy firms – A life cycle perspective. *Management Accounting Research*, 16(1), 21–57.
- Gujarati, D. (2003). *Basic Econometrics*. McGraw-Hill Higher Education.
- Gujarati, D.N. and Porter, D.C. (2010). *Essentials of Econometrics*. Fourth edition. Singapore. McGraw Hill.
- Gul, F., (1991). The effects of management accounting systems and environmental uncertainty on small business managers' performance. *Accounting and Business Research*, 22, 57–61.
- Gul, F.A., & Chia, Y.M., (1994). The effects of management accounting systems, perceived environmental uncertainty and decentralization on managerial performance: A test of three-way interaction. *Accounting, Organizations and Society*, 19, 413–426
- Gupta, A.K., Govindarajan, V., (1984). Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation. *Academic, Management Journal*, 27(1):25–41
- Haedr, B.A.R. (2017). Accounting for Management Control in Large Libyan Companies. *Accounting, Organizations and Society*, 12, 279–304
- Hansen, S.C., Otley, D.T., & Van Der Stede, W.A., (2003). Practice developments in budgeting: an overview and research perspective. *Journal of Management Accounting Research*, (15):95-116.
- Hartmann, F., & Slapnič, S. (2012). The perceived fairness of performance evaluation : The role of uncertainty, 23, 17–33. <https://doi.org/10.1016/j.mar.2011.10.004>
- Heinicke, A., Guenther, T. W., & Widener, S. K. (2016). An examination of the relationship between the extent of a flexible culture and the levers of control system : The key role of beliefs control. *Management Accounting Research*, 33, 25–41. <https://doi.org/10.1016/j.mar.2016.03.005>
- Henri, J.F., (2006). 'Management Control Systems and Strategy: A Resource-based Perspective. *Accounting, Organizations and Society*, 31, 529-558.
- Hiltrop, S. (1996). The impact of human resource management on organizational performance: Theory and research. *European Management Journal*, 14(6), 628-637.
- Hirst, M. K. (1981). Accounting information and the evaluation of subordinate performance: A situational approach. *Accounting Review*, 56(4), 771-784.
- Hope, J. & Fraser, R., (2003). *Beyond budgeting: How managers can break free from the annual performance trap*. Boston. Harvard Business School Press.
- Hopper, T., Koga, T. & Goto, J. (1999). Cost accounting in small and medium sized Japanese companies: an exploratory study. *Accounting and Business Research*. 30(1), 73-86.
- Hopwood, A.G., (1976). *Accounting and Human Behaviour*. Englewood Cliffs, NJ. Prentice Hall.
- Hopwood, A.G., (1983). On trying to study accounting in the contexts in which it operates. *Accounting, Organizations and Society*, 8(2/3), 287-305.

- Hoque, Z., (2004). A contingency model of the association between strategy, environmental uncertainty and performance measurement: impact on organizational performance. *International Business Review*, 13(4), 485–502
- Hung, H-M. (2007). Influence of the environment on innovation performance of TQM. *Total Quality Management and Business Excellence*, 18(7), 715-730.
- Hutzschenreuter, T. (2009). *Management control in small and medium-sized enterprises*. First Edition. Wiesbaden: Gabler.
- Iorun, J.I (2014). Evaluation of survival of small and medium enterprises in Benue state, Nigeria. *International Journal Of Academic Research In Accounting, Finance And Management Sciences*, 4(2), 225-263.
- Ittner, C., Larcker, D., & Randall, T. (2003). Performance implications of strategic performance measurement in financial services firms. *Accounting, Organizations and Society*, 28(7/8), 715–741.
- Ittner, C.D., Larcker, D.F., 1997. Quality strategy, strategic control systems, and organizational performance. *Accounting, Organizations and Society*, 22, 293–314.
- Janke, R., Mahlendorf, M. D., & Weber, J. (2014). Interactive use of management control systems and perception of negative external crisis effects. *Management Accounting Research*. <https://doi.org/10.1016/j.mar.2014.01.001>
- Jaworski, B. J., Stathakopoulos, V., & Krishnan, H. S. (1993). Control combinations in marketing: conceptual framework and empirical evidence. *Journal of marketing*, 57(1), 57-69.
- Jazayeri, M. (2003). Convergence versus divergence of performance measurement systems. <https://doi.org/10.1108/11766091111162098>
- Jensen, M. C. and Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360
- Jonsson, P. (2000). An empirical taxonomy of advanced manufacturing technology. *International Journal of Operations and Production Management*, 20(12), 1446-1474.
- Kantola, H. and Jarvinen, J., (2012). Analysing the Institutional logic of late DRG adopters. *Financial Accountability and Management*, 4, 269-285
- Kasumba, S., (2013). A new dimension to neo-institution sociology. *African Journal of economic and management*, 4(1), 122-143.
- Kim, Y., & Ployhart, R. E. (2014). The effects of staffing and training on firm productivity and profit growth before, during and after the great recession. *Journal of Applied Psychology*, 99(3), 361–389.
- King, R., Clarkson, P.M., Wallace, S., 2010. Budgeting practices and performance in small healthcare businesses. *Management Accounting Research*, 21, 40–55.
- Kleine, C., & Weißenberger, B. E. (2013). Leadership impact on organizational commitment : the mediating role of management control systems choice. <https://doi.org/10.1007/s00187-013-0181-3>

- Kober, R., Ng, J., & Paul, B. J. (2007). The interrelationship between management control mechanisms and strategy. *Management Accounting Research*, 18(4), 425–452.
- Koufteros, X. A., Vonderembse, M. A. & Doll, W. J. (2002). Integrated product development practices and competitive capabilities. The effects of uncertainty, equivocality, and platform strategy. *Journal of Operations Management*, 20, 331-355.
- Langfield-smith, K. I. M. (1997). Management control systems and strategy : a critical review. *Accounting, Organizations and Society* 22(2), 207–232.
- Lawrence, P. R. & Lorsch, J. W. (1967). Differentiation and Integration in Complex Organizations. *Administrative Science Quarterly*, 12(1), 1-47.
- Lee, J., & Miller, D., (1996). Strategy, environment and performance in two technological contexts: contingency theory in Korea. *Organization Studies*, 17, 729–750
- Leonard, J. S. (1990). Executive Pay and Firm Performance. *Industrial and Labor Relations Review*, 43 (3), 13-29.
- Liao, Y.S. (2006). The effect of fit between organizational life cycle and human resource management control on firm performance. *Journal of American Academy of Business*, 8(1), 192-196
- Lopez-valeiras, E., Gomez-conde, J., & Lunkes, R. J. (2017). Employee reactions to the use of management control systems in hospitals: motivation Vs. threat. *Gaceta Sanitaria*, (xx). <https://doi.org/10.1016/j.gaceta.2016.12.003>
- Macintosh, N.B. (2010). *Management accounting and control systems: An organizational and sociological approach*. Chichester: Wiley
- Macintosh, N.B. and Daft, R.L.(1984): *The nature and use of formal control systems for management control and strategy implementation*. Springfield, VA
- Macintosh, N.B., (1994). *Management Accounting and Control Systems: An Organizational and Behavioral Approach*. John Wiley and Sons, United Kingdom.
- Malina, M.A., Selto, F.H., (2004). Choice and change of measures in performance measurement models. *Management Accounting Research*, 15, 441–469.
- Malmi, T. & Brown, D. A. (2008). Management control systems as a package--Opportunities, challenges and research directions. *Management Accounting Research*, 19(4), 287-300
- Malmi, T., & Brown, D. A. (2008). Management control system as package – Opportunities, challenges and research directions. *Journal of Management Accounting Research*, 19(4), 287-300.
- Marcoulides, G. A. & Heck, R. H. (1993). Organizational culture and performance: proposing and testing a model. *Organization Science*, 4(2), 209-225.
- Marginson, D.E.W., & Ogden, S., (2005). coping with ambiguity through the budget: the positive effects of budgetary targets on managers' budgeting behaviors. *Journal of Accounting, Organizations and Society*, 30(5), 435-456.
- Merchant, K. A. & Van der Stede, W. A. (2003). *Management control systems: performance measurement, evaluation and incentives* (2nd ed.). Harlow: Prentice Hall

- Merchant, K. A. & Van der Stede, W. A. (2012). *Management control systems: Performance measurement, evaluation and incentives*. 3rd ed. Harlow et al.: Pearson Education.
- Merchant, K.A., & Van der Stede, W.A., (2007). *Management control systems: performance measurement, evaluation and incentives*. 2nd ed. London. Prentice Hall .
- Merchant, K.A., (1981). The design of the corporate budgeting system: influences on managerial behavior and performance. *The Accounting Review*, 56, 813–829.
- Merchant, K.A., (1984). Influences on departmental budgeting: an empirical examination of a contingency model. *Accounting, Organizations and Society*, 9, 291–307.
- Merchant, K.A., Chow, C.W., Wu, A., 1995. Measurement, evaluation and reward of profit center managers: A cross-cultural field study. *Accounting, Organizations and Society*, 20, 619–638.
- Merchant, K.A., Otley, D.T., (2007). A review of the literature on control and accountability. In: Chapman, C.S., Hopwood, A., Shields, M.D. (Eds.), *Handbook of Management Accounting Research*. Elsevier, Oxford, 785–803.
- Meyer, J.W. and Rowan, B., (1977). Institutionalized organizations: Formal Structure as Myth and Ceremony. *The American Journal of Sociology*, 83(2), 340-363.
- Mia, L., (1989). The impact of participation in budgeting and job difficulty on managerial performance and work motivation: a research note. *Journal of Accounting, Organizations and Society*, 14(4), 347-357.
- Mintzberg, H. (1979): *The structuring of organizations*. New Jersey, USA Prentice-Hall Inc.
- Mintzberg, H., (1994). *The rise and fall of strategic planning*. New York. Free Press.
- Modell, S., (1996). Management accounting and control in services: structural and behavioural perspectives. *International Journal of Service Industry Management*, 7(2), 57-80.
- [Münstermann](#), B., [Eckhardt](#), A. & [Weitzel](#), T. (2010). The performance impact of business process standardization: An empirical evaluation of the recruitment process. *Business Process Management Journal*, 16(1), 29-56.
- Naranjo, G.D., & Hartmann, F., (2006). How top management teams use management accounting systems to implement strategy. *Journal of Management Accounting Research*, 18(1), 21–53.
- Naranjo-Gil, D., & Hartmann, F., (2007). Management accounting systems, top management team heterogeneity and strategic change. *Accounting Organizations and Society*, 32, 735–756.
- Naranjo-Gil, D., Maas, V.S., & Hartmann, F.G.H., (2009). How CFOs determine management accounting innovation: an examination of direct and indirect effects. *European Accounting Review*, 18, 667–695.
- Ogbonna, E. and Harris, L. C. (2000): Leadership style, organizational culture and performance: empirical evidence from UK companies. *International Journal of Human Resource Management*, 11(4), 766–788

- Okafor, N.C., Kalu, A.E., & Ozioma, O.H. (2017). Effect of organizational structure on performance of selected manufacturing companies in Enugu State Nigeria. *The International Journal Of Business & Management*, 5(5), 190-206.
- Okoye, E.I., Odum, A.N., Odum, C.C. (2017). Effect of balanced scorecard on firm value: the case of quoted manufacturing companies in Nigeria. The 2017 International Conference on African Entrepreneurship and Innovation for Sustainable Development (AEISD).
- Olanye, P.A. & Eyela, E.C. (2015). Driving employees' motivation through reward system in selected organisations in Lagos State, Nigeria. *Finnish Business Review*, 3, 1-13.
- Olusanya, S.O., Awotungase, S.A., & Ohadebere, E.C. (2012). Effective planning and organisational productivity. (A case study of Sterling Bank Nigeria Plc). *Journal of Humanities And Social Science*, 5(5), 31-39.
- O'Reilly, C. (1989). Corporations, culture, and commitment: motivation and social control in organizations. *California Management Review*, 31(4), 9-25.
- Osama M., Husam, A., Mohammed, I., & Abdulhadi R. (2013). The impact of budgetary participation on managerial performance: Evidence from Jordanian University executives. *Journal of Applied Finance & Banking*, 3(3), 133-156.
- Osundina, K. C. & Osundina, J. A. (2012). Budgeting processes and the performance of food and beverages manufacturing companies in Nigeria. *International Journal of Economic Development Research and Investment*; 3(3), 61-69.
- Otley, D. T. (1980). The contingency theory of management accounting: Achievement and prognosis. *Accounting, Organizations and Society*, 5 (4), 413-428.
- Otley, D., (1999). Performance management: a framework for management control systems research. *Management Accounting Research*, 10, 363-382
- Ouchi, W.G., (1979). A conceptual framework for the design of organizational control mechanisms. *Journal of Management Science*, 25, 833-848
- Pagell, M. – Krause, D. R. (2004). Re-exploring the relationship between flexibility and external environment. *Journal of Operations Management*, 21(6), 629-649.
- Perrow, C., (1967). A Framework for Comparative Organizational Analysis. *American Sociological Review*, 16, 444-459
- Pugh, D. S., Hickson, D. J., Hinings, C. R., Macdonald, K. M., Turner, C. & Lupton, T. (1963). A Conceptual Scheme for Organizational Analysis. *Administrative Science Quarterly*, 8(3), 289-315.
- Ragasa, C. (2016). Capacity versus incentive factors explaining research productivity: Comparative and multilevel analysis of Nigeria and Ghana agricultural research systems. *Journal of Development and Agricultural Economics*, 8(6), 129-149.
- Reid, G. C. & Smith, J. A. (2000). The impact of contingencies on management accounting system development. *Journal of Management Accounting Research*, 11(4), 427-450.
- Reid, G. C., & J. A. Smith. (2002). *Risk Appraisal and Venture Capital in High-Technology New Ventures*. UK: Chartered Institute of Management Accountants.

- Reid, G. C., & Smith, J. A. (2000). The impact of contingencies on management accounting system development, (August), 427–450. <https://doi.org/10.1006/mare.2000.0140>
- Reid, G. C., and J. A. Smith. (2002). Risk appraisal and venture capital in high-technology new ventures. United Kingdom: Chartered Institute of Management Accountants.
- Reid, G.C., & Smith, J.A. (2000). The impact of contingencies on management accounting system development. *Journal of Management Accounting Research*, 11(4), 427-450.
- Sanusi, J.O. (2004). Keynote address by the Governor of the Central Bank of Nigeria presented at the national summit on ‘Revamping small and medium industries, organized by the Manufacturers Association of Nigeria (MAN), Lagos, Nigeria.
- Schein, E. H. (2004). *Organisational culture and leadership*. (3rd ed.). San Francisco, CA: Jossey-Bass Publishers.
- Shabbier, M.S. (2016). Organizational structure and employee’s performance: a study of brewing firms in Nigeria. *American Research Journal of Business and Management*, 3(1), 1-16.
- Shields, J., & Shelleman, J.M. (2016). Management accounting systems in micro-SMEs. *Journal of Applied Management and Entrepreneurship*, 5(2), 1-13.
- Shields, M.D. & Young, S.M., (1993). Antecedents and Consequences of Participative Budgeting: Evidence on the Effects of Asymmetrical Information. *Journal of Management Accounting Research*, 5, 265-280
- Shonin, E.S., Van Gordon, W., Dunn, T., Singh, N. & Griffiths, M.D. (2014). Meditation Awareness Training (MAT) for work-related wellbeing and job performance: A randomized controlled trial. *International Journal of Mental Health and Addiction*, 12, 806–823.
- Simons, R. (1987)a. Accounting control systems and business strategy: An empirical analysis. *Journal of Accounting, Organizations and Society*, 12(4), 357-374.
- Simons, R. (1987)b. ‘Planning, control and uncertainty: a process view. In Bruns, W.J. and Kaplan, R.S. (eds), *Accounting and Management Field Study Perspectives*, Harvard Business School Press, Boston.
- Simons, R., (1995). *Levers of control: How managers use innovative control systems to drive strategic renewal*. Boston. Harvard. Business School Press.
- Siyanbola, T.T. (2013). The impact of budgeting and budgetary control on the performance of manufacturing company In Nigeria. *Journal of Business Management & Social Sciences Research*, 2(12), 8-16.
- Soobaroyen, T. (2007). Management Control Systems and Managerial Dysfunctional Behaviour : An Empirical Study of Direct, Intervening and Moderating Effects. A thesis submitted to the University of Wales in partial fulfilment for the degree of Doctor of Philosophy, (September).
- Spanos, Y.E. & Lioukas, S. (2001). An examination into the causal logic of rent generation: contrasting Porter's competitive strategy framework and the resource-based perspective. *Strategic Management Journal* 22(10), 907-934.

- Speckbacher, G. & Offenberger, P. (2010). The design of management control systems in non-profit organizations: how can trust and control be balanced? Available at: http://istr.conference-services.net/resources/588/1799/pdf/ISTR2010_0426.pdf (accessed 15 June 2017).
- Speckbacher, G. (2003). The economics of performance management in nonprofit organizations. *Nonprofit Management and Leadership*, 13(3), 267-281.
- Specklé, R., & Kruis, A., (2014). Management control research: A review of current developments. In: Otley, D., Soin, K. (Eds.), *Management Control and Uncertainty*. Basingstoke, UK. Palgrave Macmillan.
- Speklé, R. F. (2001). Explaining management control structure variety: A transaction cost economics perspective. *Accounting, Organizations and Society*, 26(4-5), 419-441.
- Strauß, E. & Zecher, C. (2012). Management control systems: a review. *Journal of Management Control*, 1-36 DOI: 10.1007/s00187-012-0158-7
- Su, S., Baird, K., & Schoch, H. (2014). the association between the interactive and diagnostic performance. *Management Accounting Research*, 4, 1-14. <https://doi.org/10.1016/j.mar.2014.09.001>
- Thompson, J. D. (1967): *Organizations in action. Social science basis of administrative theory*. New York, USA: McGraw-Hill Book Company.
- Tillema, S., (2005). Towards an integrated contingency framework for MAS sophistication: Case studies on the scope of accounting instruments in Dutch power and gas companies. *Management Accounting Research*, 16, 101-129
- Ude, U. & Coker, M.A. (2012). Incentive schemes, employee motivation and productivity in organizations in Nigeria: Analytical linkages. *Journal of Business and Management*, 1(4), 32-39.
- Udechukwu, F.N (2003). Survey of small and medium scale industries and their potentials in Nigeria. Seminar on Small and Medium Industries Equity Investment (SMIEIS). *Central Bank of Nigeria training centre*, Lagos, Nigeria, 6-18.
- Van der Stede, W. A. (2000). The relationship between two consequences of budgetary controls: budgetary slack creation and managerial short-term orientation. *Journal of Accounting, Organizations and Society*, 25(6), 609-622. doi:10.1016/s0361-3682(99)00058-6
- Venkatraman, N., & Ramamujam, V. (1987). Measurement of business economic performance: an examination of method convergence. *Journal of Management (Spring)*, 109-122.
- Venkatraman, N., (1989). The concept of fit in strategy research: Toward verbal and statistical correspondence. *The Academy of Management Review*, 14(3), 423-444.
- Verstegen, B.H.J. (2006). Relating the institutional approach in management accounting to institutional economics: An essay on dual-mode rationality. *Journal of Economic Issues*, 13, 1-16.
- Whitley, R. (1999). Firms, institutions and management control: The comparative analysis of coordination and control systems. *Journal of Accounting, Organizations and Society*, 24(5-6), 507-524.

- Widener, S.K., 2007. An empirical analysis of the levers of control framework. *Accounting organizations and Society*, 32, 757–788.
- Woodward, J. (1965). *Industrial organization: Theory and practice* London: Oxford
- Xenikou, A. and Simosi, M. (2006). Organizational culture and transformational leadership as predictors of business unit performance. *Journal of Managerial Psychology*, 21(6), 566-579.
- Yao, S. (1997). Profit sharing, bonus payment, and productivity: a case study of Chinese state-owned enterprises. *Journal of Comparative Economics*, 24(3), 281-296
- Zimmerman, J. (2001). Conjectures regarding empirical managerial accounting research. *Journal of Accounting and Economics*, 32(1-3), 411-427.

APPENDIX ONE: Sample Questionnaire

SECTION ONE: COMPANY AND MANAGEMENT PROFILE

A. Company's profile:

i. Company's age

**0-5 years
above**

6-10 years

11-15 years

**16-20 years 21 years and
above**

ii. (a) Kindly tick the number of employees presently in your company

1-50

51-100

101-150

151-200

201 and above

(b) Kindly tick the value range of your company's total asset

10m-20m

21m-40m

41m-60m

61m-80m

**81m and
above**

2. Management profile

i. Please, kindly tick the appropriate area of your discipline

**Accounting/Finance
Science**

Business Admin

Economics

Pure Science

Pure Art

ii. Qualification: Kindly tick your level of qualification

SSCE

OND

HND

B.Sc.

Professional Qualification

(CNA, ACA, ACCA, ICPA)

iii. Kindly tick the your department

Accounting & Finance

Production

Human Resource

Sales

Others

iv. Please, kindly tick the number of year you have spent with the company

1-5 years

6-10 years

11-15 years

16-20 years

21 years and above

v. Please, kindly tick your cadre or designation

Managing Director General Manager Senior Manager Manager

Others

SECTION TWO: MANAGEMENT CONTROL MECHANISMS1. PLANNING

This section collects your views on the planning process ,in term of detail and subordinate participation, of your organization, as a form of Management Control Mechanism over five years (2013-18).Please circle response of your choice from the option given in the table:

A	MODE	Highly Specific	Specific	Slightly specific	Indifference	Slightly Unspecific	Unspecific	Highly Unspecific
1	How would you describe the strategic goals of your organization							
2	How would you characterize the strategic plan of your organization	Highly detailed	Detailed	Slightly detailed	Indifference	Little detail	Undetailed	Highly undetailed
3	How closely is the strategic plan followed in your organization	Tightly followed	Followed	Slightly followed	Indifference	Loosely followed	Unfollowed	Highly unfollowed
4	How would you describe the process by which strategy develops in your organization	Highly Formalized	Formalized	Moderately formalized	Indifference	Emergent process	Informal	Highly Informal
B	PARTICIPATION	Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
1	To what extent are subordinates involved in the strategic planning processes of the organization							

2. MEASUREMENT

This section collects your views on the use of measurement control(financial and non-financial measures e.g. Budget and non-financial measures such as balanced scored card.) to evaluate subordinate in your organization over five years (2013-18).Please circle response of your choice from the option given in the table:

A	DIAGNOSTIC CONTROL	Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
1	To what extent does management use budget to identify critical performance variables							
2	To what extent does management use budget to set targets for critical performance variables							
3	To what extent does management use budget to monitor progress towards critical performance target							
4	To what extent does management use budget to provide information to correct deviations from present performance targets							
5	To what extent does management use budget to review key areas of performance							
B	INTERACTIVE CONTROL							
1	To what extent does management use budget to provide a recurring and frequent agenda for top management activities							
2	To what extent does management use budget to provide a recurring and frequent agenda for subordinate activities							
3	To what extent does management use budget to enable continual challenge and debate of underlying data, assumptions and action plans							

	with subordinates and peers							
4	To what extent does management use budget to focus attention on strategic uncertainties							
5	To what extent does management use budget to encourage and facilitate dialogue and information sharing with subordinates							
C	TIGHTNESS	Highly flexible	Flexible	Slightly flexible	Indifference	Slightly inflexible	Inflexible	Highly inflexible
1	How flexible are subordinate performance targets once they have been set							
		Very frequently	Frequently	Slightly frequent	Indifference	Slightly infrequent	Infrequently	Highly frequent
2	How frequently are subordinates consulted about performance target achievement							
		Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
3	To what extent are written explanations for variances from target performance levels required from subordinates							
4	To what extent are subordinate evaluations predominantly based on achievement of performance targets							
D	COST CONTROL	Strongly agree	Agree	Slightly agree	Indifference	Slightly disagree	Disagree	Strongly disagree
1	Cost control systems monitor virtually all tasks in the organization							
2	Organization operations are controlled by analyzing and reporting to top management variances between actual costs and standard or expected costs							
		Very great extent	Great extent	Slightly great extent	Indifference	Slightly low extent	Occasionally	Not used at all
3	To what extent are cost centers used in your organization							

E	MEASURE DIVERSITY	Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
1	To what extent are measures related to customers used to evaluate subordinate performance							
2	To what extent are measures related to employees used to evaluate subordinate performance							
3	To what extent are measures related to operational process used to evaluate subordinate performance							
4	To what extent are measures related to innovation used to evaluate subordinate performance							
5	To what extent are measures related to quality used to evaluate subordinate performance							
6	To what extent are measures related to social responsibility used to evaluate subordinate performance							

3. COMPENSATION

This section collects your views on the use of compensation as a control mechanism in your organization over five years (2013-18). Please circle response of your choice from the option given in the table:

A	PERFORMANCE BASED	Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
A	The financial rewards of subordinates increase as actual performance increasingly exceeds targets							
1	Subordinates whose performance relative to targets is among the top 25% are given larger financial rewards than those given to managers among the bottom							
2	Compensation contracts clearly specify how compensation is related to subordinate performance relative to performance targets							
B	SUBJECTIVE/OBJECTIVE BASED	Very objective	Objective	Slightly objective	Indifference	Slightly subjective	Subjective	Highly subjective
1	What is the usual basis for determining performance based or bonus compensation for subordinates							

4. STRUCTURE

This section collects your views on the use of organization structure as a control mechanism in your organization over five years (2013-17). Please circle response of your choice from the option given in the table:

A	DECENTRALIZATION	Very high influence	High influence	Slight influence	Indifference	Slightly low influence	Low influence	Very low influence
1	Indicate the existence of influence your subordinate has on the development of new products or services							
2	Indicate the existence of influence your subordinate has on the hiring and firing of managerial personnel							
3	Indicate the existence of influence your subordinate has on the selection of large investments							
4	Indicate the existence of influence your subordinate has on the resource allocation							
5	Indicate the existence of influence your subordinate has on pricing decisions							
B	COMMUNICATION	Highly Formal	Formal	Slightly formal	Indifference	Slightly informal	Informal	Very informal
1	Indicate how control information is typically communicated in your organization							
		Very high access	High access	Slightly high access	Indifference	Slightly low access	Low access	Very low access
2	Indicate the accessibility of operational information in your organization							
		Highly Formal	Formal	Slightly formal	Indifference	Slightly informal	Informal	Very informal
3	Indicate the content of work-related communication between top management and subordinates							
C	INTEGRATIVE LIASON	Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
1	To what extent are the activities between sub units in your organization coordinated through							

	liaison personnel whose specific job is to coordinate the efforts of							
2	To what extent are the activities between sub units in your organization coordinated through temporary task forces or committees set up to facilitate collaboration on specific projects							
3	To what extent are the activities between sub units in your organization coordinated through permanent cross-functional teams							
4	To what extent are the activities between sub units in your organization coordinated through matrix structures entailing multiple line of authority, multiple responsibility assignments and overlapping team membership							

5. POLICIES AND PROCEDURES

This section collects your views on the use of Policies and procedures as a control mechanism in your organization over five years (2013-15). Please circle response of your choice from the option given in the table:

A	AUTONOMY	Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
1	To what extent does subordinates conduct non-routine activities independent of top management involvement							
2	To what extent does subordinates have the freedom to create their own methods of getting work done if no standard procedures exists							
B	BOUNDARY SYSTEMS	Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
1	To what extent are codes of conduct or similar statements relied upon to define appropriate behavior							
2	To what extent are there policies or guidelines that stipulate specific areas for, or limits on, opportunity search and experimentation							
3	To what extent does top management actively communicate risks and activities to be avoided by subordinates							
4	To what extent are sanctions and punishments applied to subordinates who engage in risks and activities outside organizational policy, irrespective of the outcome							
C	STANDARDIZATION	Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
1	To what extent are the work activities of subordinates determined by standardized procedures or processes							

2	To what extent are the activities between sub units in your organization coordinated through pre-planning of activities between the sub units							
3	To what extent are the activities between sub-units in your organization coordinated through standardized rules, programmes or procedures that are formally or informally understood between sub units							
D	PRE-ACTION REVIEWS	Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
1	To what extent are formal pre-action reviews used to access projects undertaken by subordinates							
		Very high detail	High detail	Slight detail	indifference	Slightly little detail	Little detail	Very little detail
2	How detailed are the reports or plans required from subordinates before initiating specific projects							

6. SOCIO-CULTURAL

This section collects your views on the use of employee selection procedures, training, social events, orientation and induction as a sociological control mechanism in your organization over five years (2013-18). Please circle response of your choice from the option given in the table:

A	SELECTION	Highly extensive	Extensive	Slightly extensive	Indifference	Slightly intensive	Intensive	Highly intensive
1	How extensive is the recruitment and selection process							
		Very high importance	High importance	Slight importance	Indifference	Slightly low importance	Low importance	Highly low importance
2	How much importance is placed on selecting managers who have attitudes and values aligned to the organization not just on technical competence							
B	SOCIALIZATION	Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
1	To what extent are training and development processes used to reinforce organizations objectives, expectations and norms							
2	To what extent are social events and functions used to develop and maintain commitment to the organization							
3	To what extent are monitoring, orientation and induction programmes used to acclimatize new managers to acceptable behaviors, routines and norms							
C	BELIEF SYSTEM	Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
1	To what extent are the values, purpose and direction of the organization codified in formal documents							
2	To what extent does top management actively communicate core values to subordinates							

3	To what extent are formal statements of values used to create commitment to the long term vision of top management							
4	To what extent are formal statements of values used to motivate and guide subordinates in searching for new opportunities							
D	SOCIAL CONTROL	Very high extent	High extent	Moderate extent	Indifference	Slightly low extent	Low extent	Highly low extent
1	To what extent is there a sense of shared values, beliefs and expectations among employees							
2	To what extent is there a consensus among employees on organization objectives and direction							
3	To what extent are employees committed to the values and objectives outlined by top management							
4	To what extent does top management rely on the shared values and norms of employees to provide direction when faced with uncertainty							

SECTION THREE: CONTINGENCY VARIABLES

1. TASK UNCERTAINTY

This section collects your views on how measurable and programmable are the subordinate’s action in the pursuit of assigned role or duties in your organization over five years (2013-18).Please circle response of your choice from the option given in the table:

A	OUTCOME MEASURABILITY	Strongly agree	Agree	Slightly agree	Indifference	Slightly disagree	Disagree	Strongly disagree
1	Standards of desirable performance for subordinates are well defined							
2	Results measured accurately depict how well subordinates have performed							
3	Top management have several sources of objective data available that indicate how well subordinates are performing							
B	TASK PROGRAMMABILITY							
1	The actions subordinates take to achieve results are visible to top management							
2	Effective and ineffective subordinates can be distinguished by observing the actions they take							
3	The relationship between the actions that subordinates take and the eventual outcomes are well known by top management							

2.PERCEIVED ENVIRONMENTAL UNCERTAINTY

This section collects your views on how predictable, turbulent and hostile is the environment where your organization is operating over five years (2013-18).Please circle response of your choice from the option given in the table:

A	UNPREDICTABILITY	Very predictable	Predictable	Slightly predictable	Indifference	Slightly unpredictable	Unpredictable	Highly unpredictable
1	Over the past three years, how predictable have changes in customers actions been							
2	Over the past three years, how predictable have changes in suppliers actions been							
3	Over the past three years, how predictable have changes in competitors actions been							
4	Over the past three years, how predictable have changes in technological actions been							
5	Over the past three years, how predictable have changes in economic actions been							
B	TURBULENCE	Very many changes	Many changes	Slightly many changes	Indifference	Slightly few changes	Few changes	Very few changes
1	Over the past three years, how many changes have occurred amongst customers that have had a negative impact on the nature of your business							
2	Over the past three years, how many changes have occurred amongst competitors that have had a negative impact on the nature of your business							
3	Over the past three years, how many changes have occurred amongst suppliers that have had a negative impact on the nature of your business							
4	Over the past three years, how many changes have occurred in							

	technology that have had a negative impact on the nature of your business							
5	Over the past three years, how many regulatory/economic changes have occurred that have had a negative impact on the nature of your business							
C	COMPLEXITY	Very high diversity	High diversity	Slightly diverse	Indifference	Slightly low	Low diversity	Very low diversity
1	How diverse in nature are the product/service requirements of your customers to each other							
2	How diverse are the strategies and tactics of your key competitors to each other							
D	HOSTILITY	Very high intensity	High intensity	Slight high intensity	Indifference	Slightly low intensity	Low intensity	Very low intensity
1	How intense is the competition for your main products/services							
		Very high difficulty	High difficulty	Slightly high difficulty	Indifference	Slightly low difficulty	Low difficulty	Very low difficulty
2	How difficult is it to obtain the necessary inputs for your business							
		Very many	Many	Slightly many	Indifference	Slightly few	Few	Very few
3	How many strategic opportunities are currently available to your business							

SECTION FOUR: ORGANISATION PERFORMANCE

1.Perceived Financial and Non-Financial Performance

This section collects your views on the average financial performance of your organization over five years (2013-17).Please indicate level of performance by circling response of your choice from the option given in the table.

A	FIRM PERFORMANCE	Highly above average	Above average	Slightly above average	Indifference	Slightly below average	Below average	Highly below average
1	What is the level of your firm's financial performance to that of your competitors over the past five years							
2	What is the level of your firm's sales growth of new product/service market to that of your competitors over the past five years							
3	What is the level of your firm's sales growth of existing product/service market to that of your competitors over the past five years							
4	What is the level of your firm's relative market share for primary products/services to that of your competitors over the past five years							
5	What is the level of your firm's overall performance to that of your competitors over the past five years							

2.MCS effectiveness

This section collects your views on the effectiveness of Management Control System of your organization over five years (2013-17).Please indicate level of effectiveness by circling response of your choice from the option given in the table.

A	Planning,Measurement,Compensation, Structure, Policies &Procedures, sociological controls constitute Management Control System (MCS).How would you rate the performance of your MCS in :	Highly above average	Above average	Slightly above average	Indifference	Slightly below average	Below average	Highly below average
1	Motivating employees							
2	Guiding employees							
3	Coordinating employees							
4	Guiding managers							
5	Supporting managers task							
6	evaluation employee							
7	Monitoring employee							

SECTION FIVE: INSTITUTIONAL PRESSURE:

1 Regulatory pressure:

This section collects your views on the influence of various regulatory requirement in the choice and use of Management Control System of your organization over five years (2013-15).Please indicate level of agreement by circling response of your choice from the option given in the table

A	The use of the following control mechanisms are in response to regulatory requirement(e.g Tax regulation,Companies and Allied Matter Act,Enviromental Law and other relevant law)	Strongly agree	agree	Slightly agree	Indifference	Slightly disagree	disagree	Strongly disagree
1	Planning control							
2	Measurement control							
3	Compensation control							
4	Structure control							
5	Policies and Procedures control							
6	Sociological controls							

2. Association Membership

This section collects your views on the effect of being a member of Association in the choice and use of Management Control System of your organization over five years (2013-17). Please indicate level of agreement by circling response of your choice from the option given in the table:

A	Being a membership of manufacturing association and other related association, the following MCS are in use to enjoy the eco-operation the association	Strongly agree	Agree	Slightly agree	Indifference	Slightly disagree	Disagree	Strongly disagree
1	Planning control							
2	Measurement control							
3	Compensation Control							
4	Structure control							
5	Policies and procedures							
6	Sociological control							

3.. Provider of Capital

This section collects your views on the influence creditor(both loan and trade creditor) in the choice and use of Management Control System of your organization over five years (2013-17). Please indicate level of agreement by circling response of your choice from the option given in the table:

A	The use of the following MCS is in line with dictate of provider of capital	Strongly agree	Agree	Slightly agree	Indifference	Slightly disagree	Disagree	Strongly disagree
1	Planning control							
2	Measurement control							
3	Compensation control							
4	Structure control							
5	Policies and procedures control							
6	Sociological control							

APPENDIX TWO: Sample Interview Guideline

Section A: Accounting Control System

1. Briefly discuss how the following accounting control techniques: planning, budget, cost control and reward system are being used to guide and influence your subordinate
 - a. Planning
 - b. Budget
 - c. Cost control
 - d. Reward
2. With your experience in your organisation, kindly provide information on other uses your organization put planning, budget, cost control and reward into than control purpose.
3. Please show how important to your company in evaluating your subordinate using customer, innovation, quality and social responsibility measures.
4. Describe the level at which your subordinate are involved in the planning activities in your organization
5. Demonstrate how budget is being used by your organization in identifying critical performance variables of subordinates.

Section B: Non-accounting control system

1. How does your company subscribe to the idea of using the following system as ways of influence subordinate to pursue organisation objective: organisation structure, policies and procedures, recruitment process and communication of values to the subordinate through social events.
2. describe the level of influence your subordinates have in the following areas: new product development, hiring and firing of employees, selection of large investment, resources allocation and pricing decisions.
3. What level of independence does your company gives subordinate in the conduct of non-routine activities?
4. Describe the significance of using standardized procedures in the conduct of subordinate activities in your organization

5. Describe how your company is conscious of the attitudes and values of the employees to be selected in its recruitment process
6. Show how your company uses orientation, induction and monitoring programmes as control devices.
7. What importance your organization attached to its mission and vision statement as internal communicative devise?
8. Describe the level of commitment of your subordinate to the values and objectives outlined by your organization.

Section C: Firm Contingencies

I. Institutional Pressures

1. Describe the influences the trade laws, tax laws and other relevant statutory regulation have on the choice of control techniques use in your organization.
2. Have you ever experience any sanctions for not complying with directives from any statutory agencies in the choice of controls techniques?
3. Are there any situations in which your company seeks for external fund with a condition that specific control activities must be in place to get the fund? If yes. Please narrate your company experience.
4. What importance does your company attached to using management practices and techniques prevailing in the industry it belong to?
5. Describe the influence of Manufacturing Association of Nigeria and other associations that your company belongs to, on the choice of management techniques use by your organization.

II. Internal contingencies

Environmental uncertainty

1. Describe how easy to predict changes in customers, supplier, competitor, technology and general economic environment by your organization.
2. Describe the nature and level of impacts ,changes experienced among customers,competitors,supplires,technology and economic policies on your organization
3. Show how intense is the competition for your products?
4. Describe the difficulty your company often experience in sourcing for inputs for its products
5. Describe how complex are the strategies and tactics of your competitor.

Task Uncertainty

1. Describe the degree to which your company is able to measure the outcome of its subordinate activities?

2. Show how your company use various sources of objective data at its disposal to evaluate how subordinate are performing

3. Describe how visible are the actions of your subordinate to you and other management staff

4. Describe how easy to your company management to distinguish effective subordinate firm ineffective subordinate.

Section D: Relationship between accounting control, non-accounting control, internal contingencies and performance

1. Describe the situation in which your company considers level of environmental uncertainty, task uncertainty and its age as determinant of its control system design and use.

2. show how the extent to which your chosen control techniques have influence the performance of your organization in term of absolute profit, market share and growth.

APPENDIX THREE: Tran scripted Audible Data

OK FOODS

Good morning Sir, my name is Saheed Abdullateef from Kwara State University, I am conducting survey on management control system of Organization. Here with me is Obadun Samson Ayodeji (Research assistant). Please can we meet you?

A: I am Babatope Ogunleye, I work for OK Foods, and Comrade Owolabana

Q: Based on Ok planning, what do you understand by planning, budgeting and cost control?

A1: planning and budgeting is a way of assisting the management in making forecast or probably budget for the whole year. Cost control is that we minimize waste and spend money reasonably. The budget is usually done once in a year, where every department will have to submit their budget and at the end of the day it will be harmonized and make the total budget for the year.

Q: what is the perspective of the organization towards the staff remuneration and reward?

A: Naturally for every employer they will want to maximize profit but having said that, relatively considering the companies around us, I think the company is doing their best, but for workers they will always demand for more. To the best of my knowledge we are among the reasonable paying company but I will not say they are paying exorbitantly.

Q: I want you to describe how the company is using the organizational structure, policy, procedure, and recruitment process and communication value to aid the performance of this organization.

A: actually in that aspect I will say they are doing their best to get what they want from the workers of the organization, but if we look at it critically well from the perspective of the workers it is imbalance, because what the workers are given ... from our perspective. But I think they will always get their way and achieve what they want.

Q: describe the level of influence your subordinate have in the following areas: new product, development, hiring, firing of employers, and selection of large investment, resources allocation and price decision.

A: on new product, it is the prerogative of the top management, because they decide the product, the marketing team makes their research, and does the test strong. Hiring and firing is strictly human resources matter, though it is with the supervision of top management. There is a policy that guide employment and everything is boldly written in their letter of employment, in terms of agreement, notices to be given, if there is any and also policy in that respect.

Q: what importance does your organization attach to the mission and vision statement?

A: as an organization we have our values and we strictly adhere to it without tarnishing our integrity which is paramount. For the safety aspect of it, we are very strict about safety and we don't toy with it, we usually follow policies concerning safety and integrity to the latter.

Q: based on the known account performance, what is the level of the commitment of the subordinate towards the value and objective outlined by the organization?

A: like I talked to you about value, we allow workers to take ownership, we allow workers to have sense of belonging, so that they see the business as theirs. So, at any point in time you have the leverage to feel you are part of the company, based on this, they show a lot of commitment in that regard.

Q: sir, under the firm contingency describe the influences the trade laws, tax laws and other relevant statutory regulation have on the choice of control techniques use in your organization.

A: we know tax laws and trade laws are statutory, so we don't have any choice than to adhere strictly to them.

Q: so is there any shortcut for it?

A: there is no shortcut for it, especially in Lagos.

Q: sir, have you ever been sanction for not compliance with the directive of these statutory agencies?

A: for the past 16 years that I have been with the company I don't think we have been sanction or fine in that regard.

Q: Are there any situations in which your company seeks for external fund with a condition that specific control activities must be in place to get the fund?

A: when we talk of external fund we are a multi-national company and we don't borrow from the World Bank. Though we have our parent company outside Nigeria, we have in Singapore and some other places; I don't think we had any cause to borrow from our parent companies.

Q: on internal contingencies, describe how easy to predict changes in customers, supplier, competitor, technology and general economic environment by your organization.

A: we have a lot of projection, I can call customers harlot, they are with you today, and tomorrow they can be with company B. But the fact is that we will continue to give incentives, plan, make advertisement, and when we see that our product is about to die, we will re-package and renounce and we always give incentives to customers to retain them.

Q. Do you consider the number of years and experience as factors in the choice of your control techniques?

A:with the numbers of years this companies have spent in this business, I can say that we adopt some control techniques in early life of the companies but because of size and complexity, some control techniques need to be introduced to cope with our dynamics. For instance, this companies takes training as an important factors to motivate our employees now than when the company was young.

Q: Describe the nature and level of impacts, changes experienced among customers, competitors, suppliers, technology and economic policies on your organization.

A: when you are in an organization like this you expect a lot of changes from customers, ranging from your pricing , your ability to deliver on time and when you talk in term of technology, the type of machineries you use, they may look at your pack and say it is not well sealed. That is when you have to improve on your technology, when you bring in machines that can put good finishing to your products, because another thing is to have packaging, which can easily help you in selling the product.

Our major economic policy is to be able to sustain the company at the level we are operating presently and in doing that we have to look at cost and bring it down, we have to minimize waste and ensure we are able to sustain the salaries we are paying to workers so that we will be able to meet up with our competitors,

Q: describe how intense is the competition for your products?

A: the competitors are always on the lookout, you know in this food business you don't have to be a... everybody is trying to do the same thing you do but in a different standard, so you don't have to sleep on your house, everybody is trying to be at their best with the packaging. You know this is mostly for children but with our own standard we are trying to meet up with different age and different product for different people, so in maintaining that standard we have to still compete with the major market itself from the north to the east to the south so we will be able to manage large number of customers. We believe the customers increase your turnover so the competition is very intense.

In addition, the government policy is not helping us in this direction, we have a lot of imported sweets that are much cheaper than what we produce internally and they just have to come through the border without any control.

Q: Describe the difficulty your company often experience in sourcing for inputs for its products.

A: we don't really have a lot of difficulties except for the exchange rate, because most of our materials are sourced abroad, the fats and some other things but majorly 60 to 65% of our materials are sourced internally but they are very costly, the sugar, flour, glucose, which are mostly imported now.

Q: Describe how complex are the strategies and tactics of your competitor.

A: a manufacturing company where company will like to make day to day income, competition is expected to be stiff and highly intense, so the competitors are not resting they keep producing, we also keep producing but the edge we have is the quality of our product, we don't play with our quality, if you go into our factory there are products that are marked 'on hold', so that means that are not meeting up with the required quality, so that is what has been sustaining us despite the fact that the competition is very intense.

Q: .Describe the degree to which your company is able to measure the outcome of its subordinate activities.

A: we have a lot of supervisors on the ground, they supervise thoroughly, and they make sure all workers are doing their work as expected. In the past, we have a reward for best workers on monthly basis but it has stopped now because of the economy, maybe they are planning to start again, then there is assessment, yearly or quarterly they assess some workers especially managerial level, they want to know what you have been doing and how you have been going about it. Your superiors assess you base on this.

Q: Describe how easy to your company management to distinguish effective subordinate from ineffective subordinate

A: just as he has said, the supervisory report should bring information to the top management. So I think with the aid of the supervisors the management is able to know, and before now, maybe because of the economical situation and inconsistency we have not been able to promote some people because that is the goodwill that is given to one who is consistent. So we promote them on the ground that you have been very effective, coming on time, delivering work on time, proffering ideas and solutions when they are needed.

Q: Describe the situation in which your company considers level of environmental uncertainty, task uncertainty and its age as determinant of its control system design and use.

A: in the kind of product that we do, there are some products that have to go through cold temperature and there are some products that cannot be done under cold temperature, all that are in place and if there is any need for other development that will be look into. Secondly, the workers are carry along in whatever we are doing and as the ones who are on ground, maybe due to the humidity the boxes strength of the carton might reduce, so the feedback is what brings the major accountability of what we should do next or how we go about it in the future.

Q: what is the extent to which your chosen control techniques have influence the performance of your organization in term of absolute profit, market share and growth?

A: it has to do with ensuring whatever comes out of our line is of super quality, we ensure that we produce quality product and quality product has to do with aligning with what the law says, concerning your environment, your quality, quality of the raw materials and the packaging, so it

has a lot to do with your production particularly, ensuring the product is of high quality and you cannot contaminate the market, so that you can keep yourself afoot.

PROMASIDOR

Good afternoon sir, I am Saheed Abdullateef Ademola, here with me is Obadun Samson Ayodeji (research assistant), we are student from Kwara state University in fulfillment of PhD program, and we are conducting survey on management control system practice of manufacturing companies in Lagos State. We have chosen Promasidor as one of the reputable company as a case study. Please we want to ask few questions regarding the topic, we hope you can give us the necessary things and know your identity sir.

Q: my name is... Rafiu, I am the internal auditor for Promasidor Nigeria Limited, I have been here for the past fifteen years almost sixteen years, not as an auditor anyway, from one department to another, I have worked in account and auditing.

Q: sir, as one of the reputable manufacturing company in Nigeria today, Promasidor is well known by people, we will like to ask questions on management control system practice in Promasidor Company in terms of planning, budget, cost control and reward.

A: planning as it is, suppose to be strategic and it should be done by the management team, however it does not mean you do planning in isolation, before anything it will start from the grass root. Generally, a company that has been in existence for long, there are ways things are been done, around October of there about, there have been a kind of collation of data from each departmental head; marketing, sales, audit, production to know the budget for next year, for instance, this is year 2018, so something like that will start around October 2019, to collate the individual budget based on the department, each department will submit and they will have to sit with the management account team to actually defend it. Meanwhile, you know we have established setting...ordinarily we have what we use last year, if there is going to be a kind of expedition we are supposed to know, for instance you have 3 staff in this department but you want to have an insider, you are going to have 5 which mean you will need additional two, so if you two additional staff, you should be able to defend it, and if you have some other activities you have not been doing before you will do that, that will be collated by management account later and that will form the basis from which they will be comparing the actual on a monthly basis. What we actually spend in term of budget and what we initially budgeted for, we have to look at the variances and make the necessary adjustment as the case may be.

Q: Please, how is it important to your company in evaluating your subordinate using customer, innovation, quality and social responsibility measures?

A: there is something in place that we call appraisal system, in which a superior officer will appraise the subordinate periodically. However there is one that is done at the middle of the year, it is an appraisal but it is not actually going to award marks, it will just show the subordinate how he is faring, whether he meet the expectation or about to meet the expectation and what he needs to do, it will give him a kind of general position (where he stands) in order to know how to improve on what he is doing. At the end of every year, usually January to December based on what the subordinate score in the middle of the year and end of the year, you will sum it together and appraise. We have qualitative areas which he will be tested and we have and quantitative, those that can be measure by mass, that this is what you are suppose to achieve and this is what you have been able to achieve. It is measurable and there are some that are not measurable, those are the one we call qualitative, there is no way you can measure integrity, it is either you have it or not, it is either 100% or 0, so what must have transpired within the year must have shown whether you have that or not. So we test the subordinate on that, after that we give the score and at the end of the period, say February-march subordinate will be rewarded based on what he score on the appraisal. Basically, there is what we call productivity bonus; the productivity bonus will be paid based on what you score, if you are able to get 100% that means you are normal, you are on successful performance, if you score 120% that means you have score more, that may earn you increasement in salary, even if they are on the same level with other subordinate. If you get 80, 100, 120, you may get about 300,000 productivity bonuses, someone that scoreless may get 200,000 naira or 220,000 naira. Apart from that, it will give us the basis we are to place...to say somebody that score above can perform better, we can increase the salary or promotion.

Q: which level of subordinate is in charge of planning the activities?

A: there is no level, you know we have different level, let say from level one...seven, so level II appraise level I, level three appraise level II, and so on until you get to the director level, which will appraise the senior manager, senior manager will appraise managers, so it goes like that. But at the end of the day everything will still go to the HR, because during the period you can have grievances, you can have areas where the subordinate issue, it has to be a kind of agreement between the boss and subordinate, you can just say I score 80, I should be able to justify that yes you scored 80, if you are not face with it, there is what we call calibration, so if there is a kind of grievance procedure that you can take that will show that you are not happy with it, so that will be handle by the HR, where you call some other people and things will be sorted out.

Q: How does your company subscribe to the idea of using the following system as ways of influence subordinate to pursue organisation objective: organisation structure, policies and procedures, recruitment process and communication of values to the subordinate through social events.

A: it is the duty of the company (global) to do the structure for each department that will now buoy down to the general structure that will go to the managing director as the case may be. Each department have structure but it is a kind of uniformity, like I said we have level by level, we

have managing director, we have directors for each of the directorate, we have finance directorate, production directorate, marketing directorate, logistic directorate, and all these directorate have their directors. Those one will also have general manager for each of them, after that the general manager will have senior managers, who will have managers, the managers will also have coordinators who are like assistant manager, then supervisors, one supervisor may have like 2-3 depending on the operation, then we have officers, officers will have assistant which is the end. Now we are saying every department has organogram, the organogram can change, sometimes we have 5 people that might be in supervisor position, some might go, we hire, sometimes we may say we don't really need up to 5, maybe we need 3, we might not hire, or you may do is to arrange the structure, if that happen, we have to tell the HR to amend the structure to fit in to that.

Policy and procedure like I told you, I work in the internal control, internal control overhead assurance for the management, as to the adherence to the policy and procedures of the company that are having done by each of the functions and department. We have various policies that are guiding each of our operations; we have stock policy, procurement policy, fixed asset policy, we have policies for all the functions already, but what is important is that there are times you need to review your policies, we look into each of the department and see that they are actually following the policies and we have procedures during operations also, for instance you are a loader (logistics department) there are steps you should follow, that you should not beat. So, those are the things that internal control department are looking at, we audit all the functions one by one, we have a timetable of what we are going to do and we do that periodically, so there is no way one will even bypass policy and procedures because there is a department that is checking that. So, on that basis we ensure that those things are put in place and are actually adhere with.

On our value, we call it crest value, and that is a kind of acronym that we use here, we actually feel that our staff should adhere to what we have in mind, we deal with customer focus, that is crest, we focus every activities, we channel most of our interest on customers because if you look at business generally without sales every other arms cannot work, so, if the customers are not happy, you will not even be able to get money to deal with our working capital. Working capital is where you put your receivables and payables, ordinarily, you structure your receivables to pay your payables and all our receivables are mainly on sales, are those customers not given special attentions. On that basis we do promos at different time, we train people on customer service how to treat customers so that they don't get tired and they keep on patronizing. We give them different policies to change the different kind of discount we give customers, you know that will encourage them, because we do survey, benchmark ourselves with some other companies that are similar and see how we can improve periodically.

Q: What level of independence does your company gives subordinate in the conduct of non-routine activities?

A: there is something we call whistle blowing, and it is being done in this company by a third party to show the level of independence. It is not something that you put under a particular department, if I want to whistle blow for instance it will not be inside, there is a number one can call, it is another company consultant that handle this. So, if a subordinate is not happy with certain things, especially fraudulent activities or an unethical issue, he can go through that unanimously that you will not even know, there is a way it is done, it can be either through mail or telephone call, to the extent that even if you call it is the receiver that will pay and apart from that your identity will never be revealed. So, you are free to report any fraud or unethical issues.

Q: how does your company uses orientation, induction and monitoring programmes as control devises?

A: what we do basically is that, when there is an opening, I try as much as possible to fish in-house to see people that are in lower level that have experience. We advertise internally first, if we could not get anybody then we take it outside. After being employed we do what is called induction, which will be anchor by the HR department, in the induction the HR will introduce the company to the newcomers, then we will have one person from each of the department that will talk about their department to the newcomers, so that they will be conversant with the activities of the department and that will be done within a week from when the newcomers come in and after that the familiarization, the HR will take the employer round the company (individual introduction) so that it will not be that everybody does not know him, he is part of the family so he will be treated like a family.

Q: What importance your organization attached to its mission and vision statement as internal communicative devise?

A: all those are in our code of conduct and ethics, and our organization have that to produce quality good product at affordable price. There is a document that specifies all those things, that is given every time to a new employer. The first thing that will be given is the employee handbook, it contains the rules guiding the employee, you will also be given the code of conduct that shows the ethics and all the things that you need to know, which will read and digest. Those are part of the things that can even be asked about during the induction programme.

Q: Describe the influences the trade laws, tax laws and other relevant statutory regulation have on the choice of control techniques use in your organization.

A: like I have said we have various departments handling various government agencies, there is a tax unit in finance handling any activities related to tax, talk of payee, withholding tax, and vat, they handle that. There is a regulatory body too, we call it Public Relation Department (PR) that handles that have to do with external poke nosing apart from tax and like I told you we have internal control system that monitor and audit those processes periodically to show that they are effectively working. We have certain things that we look at in terms of risk area, even for those that does audit, we find where they are not doing well and do recommendations.

Q: Have you ever experience any sanctions for not complying with directives from any statutory agencies in the choice of controls techniques?

A: No, periodically, NAFDAC and SON usually come here, but you know for a company like this, apart from the fact that we are certified nationally, we are also certified internationally, apart from NAFDAC certification, we have ISO certification.

Q: Are there any situations in which your company seeks for external fund with a condition that specific control activities must be in place to get the fund?

A: I don't think so, ordinarily, a company of this magnitude do get funds offer from banks, it is not every time you use your money to do business, sometimes we get funds from commercial banks, we do that a lot and I think it is an healthy situation. That does not mean we are out of cash but we are just doing the normal thing as it is, international standard as it is with business operations

Q: Describe the influence of Manufacturing Association of Nigeria and other associations that your company belongs to, on the choice of management techniques use by your organization.

A: we don't have problem with that, so far you are doing things rightly. I don't think we have much, definitely there was a time... but mostly we have gone past that, because at every year , we are among those that get compliance award, we have been getting that for more than ten years now. So we try as much as possible not to cut corners, if you don't do that you are not likely to be having problem with the agency, because there are times they even know you and whatever they say they test, most of the things that are done are done on sampling basis.

Q: Describe how easy to predict changes in customers, supplier, competitor, technology and general economic environment by your organization.

A: if you have good structure you will not have problem, we have research and development organization that takes care of benchmarking, market survey for new products, the way our competitors are doing, the market share all those thing. We have internal audit department, where we deal with risk based audit, we look at all those risk. Before we audit any function we look at the likely occurrence, and the impact it will have incase it occurs. Is it going to be significant impact or minimal, because we have all those things already in station, so we are ready to joggle at any point in time and the audit that I said we do review, for instance the things that we are going to do next year we already have it, so we know what to do for each of the department and atimes some will even come as ad-hoc that we quickly do, so to a very great extent, all those risks and events are taken care of to a certain extent. You are not likely to get everything but if you are aware of it and you are monitoring it you are not likely to be caught unaware, because it is part of what you have put into consideration.

Q: does the company face any difficulty in sourcing for the raw material for production?

A: I have no such experience, like I said that we have planning department and procurement department that are planning that. What you are going to use for manufacturing for instance, we have gotten it three month ahead and you are doing that on a daily basis, there are people that are monitoring that. Ordinarily when we talk of milk product it is got from abroad. The moment you are not going through Cotonou, as long as you are coming from your own seaport and you have legal papers that are genuine by the time they even know you, you will be given waivers, those are the things I talked about, good, strong culture and if they know your company those not cut corners, so you are ok. But recently we try as much as possible to get more of local materials.

Q: Describe the degree to which your company is able to measure the outcome of its subordinate activities.

A: I mentioned it earlier on, that we have the appraisal system, that when you perform well you will be rewarded. We have some cases where someone have been performing woefully for some times, the employment have also been reviewed with times, in which someone may have to go for rehabilitation, and after that if he is still unable to meet up, he might be ask to go but with payment of his entitlement.

Q: Lastly, Describe the situation in which your company considers level of environmental uncertainty, task uncertainty and its age as determinant of its control system design and use.

A: well, there is uncertainty everywhere, but fortunately because of our age, we are more than 20 years in existence, we are used to some changes. We have political uncertainties, we have a lot of uncertainties around, and you know we are not placed in a risky area, some companies that were situated in Maiduguri for instance, some of them have closed down because of the level of uncertainty and terrorism there, here we are in Lagos, though we have our other companies around the country. We have a time when dollar was very difficult to get, it affected everybody but because we are proactive, it does not affect us. When there is problem people that are proactive will be able to have more advantages. We have a parent body that can even come to our aid in case we don't have enough and like I said, though we are not 80 or 100 years but we are more than 20, that means we are also experienced and we are conversant with certain risks and uncertainties. We have different units that are taking care of that and we are aware and mitigating against it.

Q: Describe how the extent to which your chosen control techniques have influence the performance of your organization in term of absolute profit, market share and growth.

A: like I said we have marketing and control department, at a time we are only... but because of the fact that we are doing research we are got into seasonings, that was when we started doing our onga seasoning, we started with onga powder, we are now doing onga cube with different flavours... market penetration and all those things we are really getting it... so in terms of market here we are trying.

Q. How beneficial are the use of budget, standard cost control and use some accounting ratio in motivating your employee to achieve performance ?

A: Well, if I understand your question, I will say this company prepares budget to guide our operation and to know where we are going, while cost control is for the achievement of efficiency in our operation.

Rhombiz Bread

...they follow up.

Q: Describe the level of influence your subordinates have in the following areas: new product development, hiring and firing of employees, selection of large investment, resources allocation and pricing decisions.

A: we train our subordinates, you know being in that system before, if there is another product you train them for a week, they would have got our own aim. One thing about bread making is the customer target, like ours now, I don't believe in making slice bread because of the customers, the customers don't buy slice bread. I am at Oshodi here had it been I am at Lekki, Lekki people produce slice bread, you will be able to sell it but in Oshodi, how many people will buy slice bread? They prefer those Agege bread instead of the slice. For the level of grading, I will give the subordinates 4 over 5.

Q: Describe how your company is conscious of the attitudes and values of the employees to be selected in its recruitment process.

A: I value them a lot because when somebody is working for you, you cherish and value them if you want the business to be progressing. Whenever they work overtime, I give overtime bonus, because if you are not motivating your staff, work will not flow the way it suppose to.

Q: Describe the level of commitment of your subordinate to the values and objectives outlined by your organization.

A: my subordinate commitment to the business is very good, it all depend on the character of the owner of the business, I always say that if very strict with everyone, I won't be that strict with somebody working for me because he is my source of income.

Q: Describe the influences the trade laws, tax laws and other relevant statutory regulation have on the choice of control techniques use in your organization.

A: you know I told you that my own business is a medium business, though we pay some amount yearly for the tax collectors, so we pay so that they won't disturb us.

Q: Are there any situations in which your company seeks for external fund with a condition that specific control activities must be in place to get the fund?

A: we don't collect loan but we place ourselves on credit, like the flour we used we collect on credit for a week.

Q: What importance does your company attached to using management practices and techniques prevailing in the industry it belong to?

A: I attach value to it because it is a business that fetch me money.

Q: Describe the influence of Manufacturing Association of Nigeria and other associations that your company belongs to, on the choice of management techniques use by your organization.

A: I wont lie to you I don't have, because the associations we have this days are not cooperative, and organized, you know some of them are not educative, they are quacks so when you that are educated are saying something, they will be saying something else. It is not as if there is no organization, they are in two forms in Oshodi here, there is Master bakers and Progressive and they are recognized association. Master bakers are recognized by Lagos state and throughout Nigeria but those involved in Master bakers are old bakers. Master bakers are manufacturers but they are old manufacturers just like the elders. I don't belong to any of the group since they are also a divided body, if they are one body that will be another thing entirely but they are in two forms.

Q: Describe how easy to predict changes in customers, supplier, competitor, technology and general economic environment by your organization.

A: it depend on the type of customer you have, you can say the Yoruba people are harlot, you can say the Hausa's are straightforward people, if you are also a straightforward person, they can stay with you for years.

Q: Describe the difficulty your company often experience in sourcing for inputs for its products

A: that is why I said we have, by the time in a country they are giving one person license as a supplier, you know they have given that person power to enslave us the manufacturers, now it is only Dangote that is supplying sugar. This affect the production because something we normally bought for three thousand is now fifteen thousand and you have to spread it on your cost of production, people that are buying will also complain, that is when you see someone buying one de rica of beans and 350 naira bread to feed his family, so it reduced sales of bread.

Q: Describe how complex are the strategies and tactics of your competitor.

A: we have competitors but to the glory of God and his mercies we still survive.

Q: Describe the degree to which your company is able to measure the outcome of its subordinate activities?

A: if we are suppose to produce two bags and they produce one and half, the thing we do is that the customer we are suppose to supply 20, we supply them 15 so that everyone of them will get.

Q: is there any sanction for your workers?

A: there is sanction, which is making it up. You know when they produce in the morning, after supplying they all go to rest, so for that day no rest for them because they need to meet up with the deficit.

Q: Describe the situation in which your company considers level of environmental uncertainty, task uncertainty and its age as determinant of its control system design and use.

A: seasons of the year matters a lot in this business, like in the raining season the amount of yeasts that we use is more than the one we use in the dry season, because the rate at which the dough increases in the dry season is much faster than the raining season. During the harmattan the rate at which there is loss of business is much if you are not very careful. For instance in dry season if you leave bread in this room uncovered nothing will happen, but in harmattan it will get dried or strong.

Q: Describe how the extent to which your chosen control techniques have influence the performance of your organization in term of absolute profit, market share and growth.

A: we set standard, but where there is a lot of competitors, you can plan something that this is what I am expecting on this business for this year, but this is the type of business that everybody invest on every day, you know it is not business that you will do with lot of capital, as a baker if you want to start business you can go and meet somebody that supplies flour. The thing is you can rent a bakery, it is not all bakers that have a bakery of their own, you rent and pay based on the number of bags you produce in a day. As a baker you may not have oven or milling machine, so when you get there they will not ask you to go and bring money for two or three years rent, for now the amount they collect on the production of a bag is one thousand naira. There is a

manager in the bakery that supervise and report back to the owner and sometimes the owner will be there himself to supervise, he can also be a baker.

DELI FOODS

Good morning sir, I am Mustapha Abdulrazaq from kwara state university Malete Ilorin, so I am conducting a survey research on management control system of manufacturing company which we chose the deli manufacturing company as one of the reputable company for our study. May I meet you sir?

A: I am korede Shina, the head of HR for deli foods Nigeria Limited; I have been working in this company for three years.

Q: Briefly discuss how the following accounting control techniques: planning, budget, cost control and reward system are being used to guide and influence your subordinate, Planning, Budget, Cost control, Reward

A: the control is to ensure that things are in line with what is budgeted, target and remaining focus. In terms of planning for management control we have a period when apart from budget when we forecast. Budget is yearly, when you do budget sometimes there are unforeseen circumstances that can affect your performance, what we do is that we break down the budget to monthly, then in a month we do monthly forecast then we do weekly forecast, yes we have done the budget for the whole year but with the circumstances we now sit down and decide on what

we can do, so which means the head of functions will all come together, each department have its own forecast, they... everybody key into sales forecast because sales is the one guiding us. From sales, production does its own forecast, if sales said it is going to do 10 production will target 12 or 15 more than what sales is expected. So, whenever, we you do that forecast, you are making your performance to be close to reality, forecast does not mean you do less than the budget. If the sales say 100 in the forecast we put 150.

Q: can you explain the accounting control technique?

A: the management accountant is there to keep the figures, at the end of the day when they are doing presentation or showing the finance assistant, they will tell us what we budgeted, what is forecasted, what is actual and the variation, whether it is plus or minus.

Q: I will like to know if these planning and budgeting is affecting your company whether negatively or positively.

A: it is helping positively, you know once there is projection of what you want to do, you can now put mind into, are we getting closer or not it would have been worst if there is nothing like planning that means we are just working arbitrarily and that means if we make it, it is by mistake or by luck. Like I told you we do a weekly presentation of the performance, you know we said we forecast what you will do the coming week. Then,, if it is the beginning of the month, you can now say this is the balance to go and it can help you to say with the rate we are going, we might not be able to meet up with the budgeted, it suppose to be average of 400 per week, and the first week you are now doing 80 the second you did 70 then feedback will be given based on that percentage, they will tell you we need to first recall the one you left behind and you still have to do hundred for the new month to meet up with the target so if that is not there. We use what we call ERP, it is a package system that makes your business to go online, it collate all the information, at the end of the day you get your final figure, in fact some opiano but you can see..., it is unlike the normal thing that you still have to balance, as you are selling, you are buying materials , you are producing, it is giving your plan straightly so that help us to keep you on toe, so without that I don't think we can be anywhere.

Q: How does your company subscribe to the idea of using the following system as ways of influence subordinate to pursue organisation objective: organisation structure, policies and procedures, recruitment process and communication of values to the subordinate through social events?

A: in terms of structure tells you every department, how jobs are related, who report to whom and also the responsibility of each person, it enable you to know all the require jobs in the organization, are they well covered, are they represented, are they assigned, so, once they have that structure, you need to know in a department who has this responsibility, you cannot be demanding the responsibility of a supervisor from an operator. If you enter an organization and you demand for organizational structure, what you are trying to ask is how the place is being run,

who is doing a particular job and at what end. When you now put performance target and reward, the performance target of a supervisor is different from that of operator, for a supervisor you need to specify the performance target, with percentage and timeliness for activities and for the operator the only thing you are asking from them is the quality of job, quantity of job and punctuality, for a supervisor, he will tell you the volume that must be achieved and the wastage that is allowed, for this line, this is the number of hours this line suppose to run, without the structure, you will not know who to go to. Recruitment is done in such a way that by the time you are interviewing, you must have set parameters that a candidate should meet, looking at our environment, we are like middle scale, you cannot employ somebody that is from large scale or multinational company and bring them into the system, the person might not feel comfortable. So, during recruitment, you tailor the person coming in to the realities of your environment.

Q: Describe the level of commitment of your subordinate to the values and objectives outlined by your organization.

A: for you to do that, you have to do what we call reward and punishment system, you set the values of your organization, whoever does not meet it, and there is a punishment for it. So whether they like it or not they must meet the values, part of the values is punctuality, if somebody fails in this regard there is punishment.

Q: Describe the influences the trade laws, tax laws and other relevant statutory regulation have on the choice of control techniques use in your organization.

A: they are having, because if the multiple tax regime that is being done in Nigeria today is affecting the value of product. For instance Aminu buys materials from someone, as he is bringing in, he has paid a particular tax on it and he is going to sell it to me as I am buying another tax is coming on it, so by the time I am going to sell it, it will make it more expensive. If something is an input for manufacturing processes there should be a way it should be manage that it will be convenient for us to pass it down to the consumers without inconveniencing them.

Q: Have you ever experience any sanctions for not complying with directives from any statutory agencies in the choice of controls techniques?

A: we have not, because it is part of our value as a company.

Q: Describe the influence of Manufacturing Association of Nigeria and other associations that your company belongs to, on the choice of management techniques use by your organization.

A: we are member of MAN, in MAN we have a sub sector, there is a biscuit sub sector of MAN, and we are part of the subsector. We are also part of NECA. MAN is like an advocate, for instance you need to present receipt of your dues to them. MAN regulate for the interest of the manufacturers, they tell manufacturers not to go against the law of the land, if there are obnoxious laws being brought, MAN as a body comes up to defend their members, they then say

sorry we cannot be paying this or we cannot be doing this, that is why MAN will tell erstwhile that for us if our members have shown their receipt of membership and we have agreed, then you should waive it for them. So, MAN is not primitive to their members, they are rather for the interest of their members. The only aspect they punish is if you are going against the law of the land, they will not support you, they will tell you sorry you are on your own, but if SON or NAFDAC are coming with a draconian law that will affect the business they go against it.

Q: Describe how easy to predict changes in customers, supplier, competitor, technology and general economic environment by your organization.

A: we go on net for information on office of statistics to know the inflation rate because inflation rate will affect the delivery of a supplier, it will affect the kind of prices they will give to you, for instance they will say inflation is going at the rate of a particular percentage then you should know that when doing your planning and budgeting you will factor in that cost to do it. For the technology, the MAN have a platform where you share ideas and knowledge, for instance someone might have found out that there is a new machine that reduce production process, the second one is by going to trade fairs, if you go to manufacturers fairs, they can inform you on any information.

Q: Describe how complex are the strategies and tactics of your competitor.

A: we manage our competitors through market intelligence, as the sales people are out there in the field, they give information when they change their prices, when they bring out new products, that they know can affect your own product, they give information on the performance of the sales. For instance, if a customer buys ten cartoons of Yale and when next you go, you did not see the ten cartoons again, which means the market is moving. So the only way to get your competitors is through market intelligence because they won't allow you to enter their factory.

Q: Describe the extent to which your chosen control techniques have influence on the performance of your organization in term of absolute profit, market share and growth.

A: the impact is much, I would have said without what is in place how performance monitor able, because it is from there we will say we want to grow 5% above last time, it enable us to determine the success of the organization.

APPENDIX FOUR: Regression Analysis Output

Regression output on institutional pressures and Accounting Control

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.648 ^a	.420	.413	.66507	2.623

a. Predictors: (Constant), Associatn_Pressure, Provider_Capital, Regulatory_Pressure

b. Dependent Variable: Accounting_Control

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.0015	3	4.819	62.50	.000 ^b
	Residual	74.574	258	.442		
	Total	128.575	261			

a. Dependent Variable: Accounting_Control

b. Predictors: (Constant), Associatn_Pressure, Provider_Capital, Regulatory_Pressure

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.737	.473		7.906	.000
	Provider_Capital	-.039	.083	-.033	-.464	.643
	Regulatory_Pressure	.059	.071	.059	.832	.406
	Associatn_Pressure	.335	.084	.315	4.000	.000

a. Dependent Variable: Accounting_Control

Regression output on institutional pressures and Non-Accounting Control

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.682 ^a	.465	.459	.47498	1.967

a. Predictors: (Constant), Associatn_Pressure, Provider_Capital, Regulatory_Pressure

b. Dependent Variable: Non_accounting_Control

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.992	3	5.683	74.879	.000 ^b
	Residual	40.261	258	.226		
	Total	75.253	261			

a. Dependent Variable: Non_accounting_Control

b. Predictors: (Constant), Associatn_Pressure, Provider_Capital, Regulatory_Pressure

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.243	.338		9.606	.000
	Provider_Capital	.076	.060	.084	1.281	.201
	Regulatory_Pressure	.148	.051	.193	2.896	.004
	Associatn_Pressure	.231	.060	.285	3.867	.000

a. Dependent Variable: Non_accounting_Control

Regression output on PEU,TU ,Age and Non-Accounting Control

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.732 ^a	.537	.531	.36769	1.375

a. Predictors: (Constant), Coy Age, Task_Uncertainty, Environ_Uncertainty

b. Dependent Variable: Non_accounting_Control

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.374	3	13.458	99.545	.000 ^b
	Residual	34.880	258	.135		
	Total	75.253	261			

a. Dependent Variable: Non_accounting_Control

b. Predictors: (Constant), Coy Age, Task_Uncertainty, Environ_Uncertainty

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.774	.295		6.005	.000
	Task_Uncertainty	.359	.051	.390	6.993	.000
	Environ_Uncertainty	.358	.054	.390	6.583	.000
	Coy Age	-.031	.020	-.072	-1.567	.118

a. Dependent Variable: Non_accounting_Control

Regression output on PEU, TU, Age and Accounting Control

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.528 ^a	.279	.270	.59955	1.978

a. Predictors: (Constant), Coy Age, Task_Uncertainty, Environ_Uncertainty

b. Dependent Variable: Accounting_Control

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	35.834	3	11.945	33.229	.000 ^b
	Residual	92.741	258	.359		
	Total	128.575	261			

a. Dependent Variable: Accounting_Control

b. Predictors: (Constant), Coy Age, Task_Uncertainty, Environ_Uncertainty

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.102	.482		4.364	.000
	Task_Uncertainty	.270	.084	.224	3.223	.001
	Environ_Uncertainty	.386	.089	.322	4.360	.000
	Coy Age	-.044	.032	-.079	-1.376	.170

a. Dependent Variable: Accounting_Control

Regression output on contingency-fit and performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-watson
1	.666 ^a	.443	.439	.52536	1.887

a. Predictors: (Constant), Fit_NonAcct, Fit_Acct

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.058	2	1.529	103.023	.004 ^b
	Residual	41.486	259	.276		
	Total	74.544	261			

a. Dependent Variable: Firm_Performance

b. Predictors: (Constant), Abfitnac, Abfitac

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.050	.050		120.070	.000
	Abfitac	-.264	.090	-.207	-2.920	.004
	Abfitnac	.018	.147	.009	.125	.623

a. Dependent Variable: Firm_Performance