

**PRIVATIZATION AND STATE-OWNED ENTERPRISES
PERFORMANCE: THE CASE OF NIGERIA**

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**PRIVATIZATION AND STATE-OWNED ENTERPRISES PERFORMANCE:
THE CASE OF NIGERIA**

BY

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Thesis Submitted to School of Economics, Finance and Banking, College of Business
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University Utara Malaysia

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ABSTRACT

A government involved in economic activities for national development, redistribution of resources, economic growth, and elimination of bottlenecks in the various sectors of the economy. For these reasons, state-owned enterprises (SOEs) become large and significance. The absence of entrepreneurial class, shortage of capital, and oil revenue spurred more government involvement in all sectors of the Nigerian economy. However, the justifications for government involvement in the economic activities were gradually replaced with inefficiencies, misallocation of resources, rent-seeking and political goals, exposing SOEs as being inefficient and problematic. As a result, the government introduced privatization. The Nigerian government has been privatizing its holding in SOEs since 1990. The objective of this study was to appraise the performance of privatized SOEs in Nigeria. The research used secondary data sourced from the annual reports of selected SOEs. The dependent variables were profitability and efficiency which were divided into six indicators namely gross profit margin, net profit margin, operating profit margin, sale efficiency, net income efficiency and average collection period. The independent variables are privatization, sales, capital, workers and ownership. Privatization is the focus variable. The analysis was divided into mean comparison, panel data analysis (fixed effects model and random effects model) and generalized method of moments. The analysis produced diverse results. The mean comparison results indicated that the post-privatization performances of the selected SOEs are more than their pre-privatization performance, implied that the implementation of privatization policy have improved their performances. In panel data analysis, the results of the profitability and efficiency models indicated that most of the enterprises documented mixed performance increased. Similarly, in the generalized method of moments, privatization has revealed diverse results of SOEs performance. In sum, the findings revealed mixed performance improvement of the privatized SOEs. Policy makers and managers of enterprises should be concerned with policies that enhance SOEs performance. The SOEs managers must ensure strict conformity to the profitability enhancing measures rather than political goals that create inefficiencies and waste of resources. Finally, the results of study supported the government effort in privatizing the rest of the SOEs.

Keywords: privatization, state-owned enterprises, profitability, efficiency, Nigeria

ABSTRAK

Kerajaan terlibat dalam aktiviti-aktiviti ekonomi demi pembangunan negara, pengagihan semula sumber, pertumbuhan ekonomi dan penghapusan kekangan dalam pelbagai sektor ekonomi. Hali ini menyebabkan perusahaan milik negara (SOEs) menjadi semakin besar dan signifikan. Ketiadaan usahawan, kekurangan modal dan peningkatan hasil minyak mendorong lebih banyak penglibatan kerajaan dalam semua sektor ekonomi Nigeria. Walau bagaimanapun, justifikasi bagi penglibatan kerajaan dalam aktiviti ekonomi secara beransur-ansur digantikan dengan isu-isu ketidakcekapan, penyalahgunaan sumber, *rent-seeking* dan matlamat politik menyebabkan SOEs lebih bermasalah dan tidak cekap. Oleh itu, kerajaan telah memperkenalkan penswastaan. Kerajaan Nigeria telah menswastakan pegangannya dalam SOEs sejak tahun 1990. Objektif kajian ini adalah untuk menilai prestasi SOEs yang telah diswastakan di Nigeria. Kajian ini menggunakan data sekunder yang diperolehi daripada laporan tahunan SOE terpilih. Pemboleh ubah bersandar ialah keberuntungan dan kecekapan yang mana dibahagikan kepada enam penunjuk iaitu margin keuntungan kasar, margin keuntungan operasi, kecekapan jualan, kecekapan pendapatan bersih dan tempoh pungutan purata. Pemboleh ubah bebas ialah penswastaan, jualan, modal, pekerja dan pemilikan. Penswastaan adalah pemboleh ubah tumpuan. Analisis ini telah dibahagikan kepada perbandingan min, analisis data panel (model kesan tetap dan model kesan rawak) dan kaedah umum momen. Keputusan perbandingan min menunjukkan bahawa prestasi pasca-penswastaan SOE terpilih adalah lebih baik daripada prestasi pra-penswastaan. Ini mencerminkan bahawa polisi penswastaan telah meningkatkan prestasi mereka. Dalam analisis data panel, keputusan model keberuntungan dan kecekapan menunjukkan sebahagian besar SOE yang telah diswastakan merekodkan peningkatan prestasi yang bercampur-campur. Keputusan yang sama juga diperolehi daripada analisis menggunakan kaedah umum momen. Kesimpulannya, penemuan kajian menunjukkan peningkatan prestasi yang bercampur-campur bagi SOE yang telah diswastakan. Pembuat dasar dan pengurusan perusahaan perlu prihatin dengan dasar yang mampu meningkatkan prestasi SOE. Pengurus-pengurus SOE mesti memastikan pematuhan yang ketat terhadap langkah-langkah bagi meningkatkan keuntungan dan bukannya matlamat politik yang mewujudkan ketidakcekapan dan pembaziran sumber. Akhir sekali, penemuan kajian menyokong penerusan usaha kerajaan untuk melaksanakan penswastaan ke atas SOE-SOE yang lain.

Kata kunci: penswastaan, syarikat milikan negara, keberuntungan, kecekapan, Nigeria

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TABLE OF CONTENTS

	Page
TITLE PAGE	i
CERTIFICATION OF THESIS WORK	ii
PERMISSION TO USE	iv
ABSTRACT	v
ABSTRAK	vi
ACKNOWLEDGEMENT	vii
TABLE OF CONTENTS	viii
LIST OF TABLES	xi
LIST OF FIGURE	xiii
LIST OF ABBREVIATIONS	xiv
 CHAPTER ONE INTRODUCTION	
1.0 Introduction	1
1.1 Background of the Study	1
1.2 Statement of Problem	4
1.3 Research Questions	10
1.4 Research Objectives	10
1.5 Scope of the Study	10
1.6 Significance of the Study	11
1.7 Organization of Thesis	12
 CHAPTER TWO PRIVATIZATION PROCESS IN NIGERIA	
2.0 Introduction	13
2.1 Area of the Study	13
2.2 Nigerian Economy	14
2.3 Agriculture	16
2.4 Industry	17
2.5 Services	18
2.6 Transport	19
2.7 Labour Force	20
2.8 Human Capital	21
2.9 Investment	22
2.10 The Nigerian Public Sector	23
2.11 The Problems of State-owned Enterprises in Nigeria	26
2.12 Privatization Process in Nigeria	28
2.13 Privatization Policy Implementation in Nigeria	34
 CHAPTER THREE LITERATURE REVIEW	
3.0 Introduction	39
3.1 The Role of State-owned Enterprises in an Economy	39
3.2 The Concept of Privatization	42
3.3 The Theories of Privatization	46

3.4	Microeconomic of Privatization	50
3.5	The Concept of Firm Performance	54
3.6	Measurement of Firm Performance	56
3.7	The Theory of Firm Performance	59
3.8	Empirical Review of Enterprise Performance	61
3.9	Empirical Firm Performance Study of Multi-Country	69
3.10	Conclusion	76

CHAPTER FOUR METHODOLOGY

4.0	Introduction	77
4.1	Conceptual Framework	77
4.2	Model Specification	82
	4.2.1 Profitability Models	82
	4.2.2 Efficiency Models	83
4.3	Justification of Variables	84
	4.3.1 Profitability	84
	4.3.2 Efficiency	86
	4.3.3 Independent Variables	88
4.4	Data	91
4.5	Sampling Method	92
4.6	Methods of Data Analysis	93
	4.6.1 Mean Comparison Analysis	93
	4.6.2 The Fixed Effects Model	96
	4.6.3 The Random Effects Model	97
	4.6.4 Generalized Method of Movement	99
4.7	Diagnostic Checking	100
	4.7.1 Hausman Test	101
	4.7.2 The Autocorrelation Test	102
	4.7.3 Variance Inflation Test for Multicollinearity	103
	4.7.4 Breush and Pagan Lagrangian Multiplier	105
	4.7.5 Wald Test for Heteroskedasticity	105
	4.7.6 Sargan Test	106
4.8	Conclusion	107

CHAPTER FIVE RESULTS AND DISCUSSION

5.0	Introduction	108
5.1	Descriptive Statistics	108
5.2	Correlation Analysis	109
5.3	Firms Performance Analysis	111
	5.3.1 Gross Profit Margin	111
	5.3.2 Net Profit Margin	113
	5.3.3 Operating Profit Margin	115
	5.3.4 Sale Efficiency	117
	5.3.5 Net Income Efficiency	119
	5.3.6 Average Collection Period	121
5.4	Mean Comparison Analysis Results	123
5.5	The Empirical Analysis of Panel Data Results	125

5.5.1	Model 1: Random Effects Model of Gross Profit Margin	125
5.5.2	Model 2: Fixed Effects Model of Operating Profit Margin	128
5.5.3	Model 3: Random Effects Model of Net Profit Margin	130
5.5.4	Model 4: Fixed Effects Model of Sale Efficiency	132
5.5.5	Model 5: Fixed Effects Model of Net Income Efficiency	134
5.5.6	Model 6: Random Effects Model of Average Collection Period	136
5.6	Generalized Method of Movement	138
5.6.1	Gross Profit Margin Model	138
5.6.2	Operating Profit Margin	140
5.6.3	Net Profit Margin	142
5.6.4	Sale Efficiency	143
5.6.5	Net Income Efficiency	145
5.6.6	Average Collection Period	147
5.7	Conclusion	151
 CHAPTER SIX SUMMARY OF FINDINGS, POLICY IMPLICATION AND CONCLUSION		
6.0	Introduction	152
6.1	Summary of Findings	152
6.2	The Contribution of the Research	155
6.3	Managerial and Practical Policy Implications	157
6.4	Limitation of the Study	159
6.5	Recommendation for Future Research	160
6.6	Conclusion	162
 REFERENCES		163
Appendix		180

LIST OF TABLES

Table		Page
Table 4.1	Summary of Hausman Test Results of the Various Models	101
Table 4.2	The Result of Variance Inflation Test for Model One	103
Table 4.3	The Treated Results of Variance Inflation for Model One	104
Table 4.4	The Results of Breusch and Pagan Lagrangian Multiplier Test	105
Table 4.5	Wald Test for Heteroskedasticity in Fixed Effects Models	106
Table 5.1	Descriptive Statistics	108
Table 5.2	Spearman Correlation	110
Table 5.3	Average Mean Gross Profit Margin of the Selected Firms	113
Table 5.4	Average Mean Net Profit Margin	115
Table 5.5	Average Mean Results of Operating Profit Margin	117
Table 5.6	Average Mean Results of Sale Efficiency	119
Table 5.7	Average Mean Results of Net Income Efficiency	121
Table 5.8	Average Mean Results of Average Collection Period	123
Table 5.9	Mean Comparison Analysis	124
Table 5.10	Estimated Results of Gross Profit Margin Model	127
Table 5.11	Estimated Results of operating profit Margin Model	129
Table 5.12	Estimated Results of Net Profit Margin Model	131
Table 5.13	Estimated Results of Sale Efficiency Model	133
Table 5.14	Estimated Results of Net Income Efficiency Model	135
Table 5.15	Estimated Results of Average Collection Period Model	138
Table 5.16	Estimated Results Gross Profit Margin Model	139

Table		Page
Table 5.17	Estimated Results of Operating Profit Margin Model	140
Table 5.18	Estimated Results of Net Profit Margin Model	142
Table 5.19	Estimated Results of Sale Efficiency Model	144
Table 5.20	Net Income Efficiency	145
Table 5.21	Average Collection Period	148
Table 5.22	The Impact of privatization on variables	150

LIST OF FIGURE

Figure		Page
Figure 4.1	Conceptual Framework of Privatization Theories	81

LIST OF ABBREVIATIONS

ACCs	Advanced Capitalist Countries
ACP	Average Collection Period
AGC	Ashanti Goldfield Company
AIICO	American International Insurance Company
BCC	Benue Cement Company
BPE	Bureau of Public Enterprises
CAP	Capital
CCNN	Cement Company of Northern Nigeria
DEA	Data Envelopment Analysis
FAs	Financial Advisers
FGN	Federal Government of Nigeria
GDP	Gross Domestic Product
GOCs	Government Owned Corporations
GPM	Gross Profit Margin
GT	Ghana Telecom
IPOs	Initial Privatization Officers
LSDV	Least Square Dummy Variable
MBO	Management Buy Out
MTN	Mobile Telephone Network
NAA	National Airport Authority
NAFCON	National Fertilizer Company of Nigeria
NEPA	National Electric Power Authority
NGOs	Non Governmental Organizations
NIE	Net Income Efficiency
NITEL	Nigerian Telecommunication
NLC	National Labour Congress
NNPC	Nigerian National Petroleum Corporation
NNSC	Nigerian National Supply Company
NPA	Nigerian Port Authority
NPM	Net Profit Margin
NRC	Nigerian Railway Corporation
NSE	Nigerian Stock Exchange
OECD	Organization for Economic Cooperation and Development
OPPM	Operating Profit Margin
OWN	Ownership
PR	Privatization
SAP	Structural Adjustment Programme
SE	Sale Efficiency
SIPs	Share Issue Privatizations

SOEs	State Owned Enterprises
TAGs	Technical Advisory Groups
TCPC	Technical Committee on Privatization and Commercialization
UBA	United Bank for Africa
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
WAPCO	West Africa Port Company

CHAPTER ONE

INTRODUCTION

1.0 Introduction

In this chapter, the rationale for government involvement in the economic activities is generally discussed as background information and the discussion is further narrowed down to focus on Nigeria. This is followed by statement of problem where problems of Nigerian public enterprises are presented as a practical gap. The theoretical and empirical depth particularly in Sub-Saharan Africa (SSA) and Nigeria are discussed to strengthen the need for further research in the area. The research questions and objectives are stated in the chapter, followed by scope and significance of the study. The chapter concluded with the proposed outlined of chapters.

1.1 Background of the Study

Government involves in the economy by using public enterprises as one of the mechanism for national development is a marked feature the world over (Sader, 1993). Government increasingly intervened directly in the economic process to support economic development. Efficiency criterion is the based argument for this strategy. Important sectors such as petroleum, mining, telecommunication, finance, transport, and

This intended efficiency gains were expected to improve export earnings and reduce foreign exchange constraint (Sader, 1993). Therefore, the trend of the first three-quarters of 20th century experienced state intervention in the productive sectors of the economy. Massive social and economic responsibilities were imposed on the government due to adoption of mixed economic programs. The prime principle of the program was the public ownership and control of infrastructure and productive organizations in particular.

The state owned enterprises (SOEs) becomes large in number, size and significance, constituting 10 percent of Gross Domestic Product (GDP) worldwide by 1970s. According to Nellis (2006) average percentage of GDP in developing countries surpassed 15 percent, with much higher figures in socialist and communist economies. Furthermore, Kikeri *et al.* (1992) stated that SOEs are estimated to account for an average 17 percent of GDP in SSA by 1980s. The augment continued, debated on how deeply government in the Western Europe should involve in regulating the national economy and sectors to be exclusively reserved for state ownership.

It was the believe of Thatcher's government of the United Kingdom (U.K.) in 1979 that a government should at least own the telecommunications, utilities, postal services, road and non-road transportation (Megginson & Netter, 2001). In some countries, La Porta *et al.* (2000) explain that banks owned by state were also given either protected position or monopoly power. Most politicians are with opinion that the government should own and control certain strategic industries, such as steel production and defense.

Furthermore, Rondinelli and Iacono (1996) argue that state ownership became more in the developing world for the fact slightly different, mostly government ownership was perceived as growth promoting initiative. In Africa, Latin America and Asia Countries government sought rapid growth through heavy investment in physical facilities. Another reason for the growth of government ownership in Africa, Asia and Latin America is the belief and implementation of nationalization of enterprises. Therefore, there had been a tremendous growth in the use of SOEs throughout the world (Roger, 2000).

In the case of Nigeria, the shortage of capital and absence of a well developed entrepreneurial class and huge oil revenue spurred government to involve in almost all sectors of the economy. This resulted in the passage of some legislation in the 1970s and 1980s restricting the participation of foreigners in certain sectors of the economy. Government also creates parastatals which operated in the manufacture, financial, transport and communication as well as other sectors of the economy. It is, therefore, clear that public investment in the public enterprises was enormous. The totality of investment in public enterprises, using the 1986 estimates, is about ₦36.47 billion, revalued by Technical Committee on Privatization and Commercialization (TCPC) amounting to about ₦500 billion (TCPC, 1993).

The efficiency concern, originally used as justification for expanding economic activities of the public sector, has been gradually replaced by political goals. This scenario exposes SOEs to large employers and suppliers of highly subsidized goods and services to the public. In many cases, SOEs did not contribute significantly to the development

process directed at quelling economic dissatisfaction (Sader, 1993). Instead of generating economy-wide multiplier effects, fostering private industry development through the provision of essential services and raw materials, SOEs turned out to be inefficient, problematic and generally inadequate with deteriorated infrastructural condition (World Bank, 1991).

The social benefits resulting from the provision of goods and services to the public in the form of staple foods, energy, transport, became an increasingly financial burden to the government. As stated by Sader (1993), many SOEs incurred substantial financial losses and drained the resources from the budget. Therefore, government involvement in the economic activities has increasingly come under attack on the ground that the intervention led to distortions in running the economy, bred inefficiencies and resulted in resource misallocation.

The participation is criticized for failing to accomplish the political, social and economic objectives for which they were created. It is opined that deregulation of public enterprises can yield substantial benefits relating to great efficiency, budgetary savings, preservation of scarce resources, and restoration of physical balance and reducing government involvement in the economic activity

1.2 Statement of Problem

Most of the SOEs generally failed to live up to the expectations. Many studies and reports such as Jerome (2008), El-Rufai (2001) and TCPC (1993) documented their

shortcomings. According to Jerome (2008), the reasons for the SOEs poor performance include the lack of residual claimant to profits, the presence of multiple and conflicting objectives, the prevalence of government subsidies that protect internal inefficiencies and perpetrate soft budget constraints. Meanwhile, Nellis (2006) opined that rather than contributing to state budget, public enterprises drained it, according to him SOEs in Nigeria accounted for five percent budget deficit of the GDP in 1998.

The persistence poor performance of public enterprises in Nigeria has been extraordinary in spite of committed investment to it. El-Rufai (2001) and Danjuma (2005) asserted that the Nigerian government spent USD100 billion to establish SOEs between 1975 and 1995. Similarly, it has been estimated that total investment in the public enterprise sector exceeded USD35 billion, comprising USD10.2 billion in government loans, USD12.5 billion in equity, and another unspecified and unrecorded subventions of USD11.5 billion to various enterprises, apart from massive subsidies (Jerome, 2008). Likewise, it is estimated that public enterprises consumed average of USD3 billion annually in subsidies.

In fact, Callaghy and Wilson (1988) estimate net outflows from the government to the public enterprise sector as USD2 billion annually and in particular El-Rufai (2001), Danjuma (2005) lamented the transfer of USD3 billion, USD0.8 billion, USD1.4 billion, and USD44 billion in 1998, 1999, 2000, and 2001 to SOEs, respectively. But the returns on these investments have generally been very little, and in a number of cases negative.

Yet, in a separate development a committee on cross debt determination set up by the Bureau of Public Enterprises (BPE) in 2002 reported that the total outstanding debt of the SOEs amounted to N1.18 trillion. Ten SOEs accounted for 85 percent of the total debt. Furthermore, about 40 percent of non-salary recurrent expenditure and 30 percent of capital expenditure was expended annually on these enterprises Jerome (2005). Unfortunately, the enterprises deliver intermittent and substandard services. In fact, according to El-Rufai (2001), SOEs operate at sub-optimal levels of capacity estimated to be around 10 to 35 percent. He continued with statement that the Nigerian SOEs are among the most inefficient in the world, particularly National Electric Power Authority (NEPA), Nigerian Ports Authority (NPA), Nigerian Telecommunication (NITEL), Paper Mills, Steel and Sugar companies. Furthermore, he claimed that no government business in Nigeria makes true profit and none ever made real profit unless managed by technical partners, such as NITEL, Nigerdock and National Fertilizer Company of Nigeria (NAFCON).

Another reason for the poor performance of SOEs is political expediency rather than economic viability that govern key project parameters such as capacity planning, implementation, timeframe, plant location, employment and product/service pricing. Other contributing factors to SOEs inefficiency and poor performance include excessive bureaucratic control and government intervention; inadequate policy and regulatory framework which remains an obstacle to competition, discourage private entry and investment; weak capacity to implement reform; the misconduct in holding their assets by their various executives and gross mismanagement. The inefficiency and poor performance of SOEs were compounded by a control and management structure that

was extremely complex, opaque and prone to political capture. At the end, therefore, public enterprises become platforms for political patronage and promotion of short-term political objectives to the detriment nation's long-term interest.

The result is that Nigeria under-achieved its growth potential as a result of a huge public enterprise sector weighed down by inefficiency, poor performance and massive corruption. According to the World Bank (1995), public enterprise deficits have been a major source of fiscal problems and a drag on growth in Nigeria.

In line with these problems, the TCPC, when taking diagnostic analysis of SOEs problems in country report that most of the public enterprises were suffering from eroded and weak capital structure arising from the huge and continuous losses they recorded over the years, which led the enterprises to rely exclusively on government subventions. Some of the enterprises did not have explicit tariff policies, even when their financial losses could be directly linked to the tariffs they charge for their goods and services.

Furthermore, according to TCPC (1993), most of the SOEs had serious problems of recovering debts owed to them. For instance, as at 31st September, 1989, NEPA was owned a staggering sum of ₦1.2 billion (un-audited) by its consumers. Meanwhile, as at 31st December, 1989, the total debtors figure from NNPC was ₦4.7 billion. At the end of its exercise, the Cross Debts Sub-Committee of the TCPC reported total gross debt of over ₦23 billion as at 31st December, 1988. According to TCPC, the cause was a clear lack of expertise in debt management.

From the above evidences, it can be deduced that the problems of SOEs in Nigeria are so fundamental and rooted that it created economic inefficiency, poor performance and incurred financial losses, equally SOEs had absorbed disproportionate share of credit which contributed to fiscal deficits and imbalances. Public enterprises facilitated and entrenched parasitism and corruption. Against, these track drop and unsatisfactory performance of SOEs; Nigeria has being privatizing its holdings in the SOEs since early 1990.

Studies carried out by the World Bank (1995) in some countries have shown improvement in the post privatisation performances of privatized public enterprises in terms of increased output, greater profitability, increased investment and improved operating efficiency. But in Nigeria, there is paucity of such studies. Therefore, it is still unclear to state in categorical and objective terms whether privatization has improve the general performance of the privatized enterprises.

In addition, Megginson *et al.* (1994) vividly stated that while the extant of literature on the performance of SOEs was ample, the few observed privatization analyses published were far from conclusive. Authors such as Bailey (1986), Bishop and Kay (1989), and Pryke (1982) present arguments favoring privatization's role in promoting firm performance improvement and economic efficiency, the exact opposite view is put forward by (Kay & Thompson, 1986; Wortzel, 1989). Therefore, there is need to conduct further research so as to validate the augments.

Similarly, in spite of the need for more empirical studies on post privatization performance assessment as expressed by Buchs (2003), there is still no rigorous study dealing with SOEs post-privatization performance assessment of privatized enterprises in Nigeria. The Nigerian SOEs performance is so poor that makes it different. The poor performance merits particular attention because in Nigeria the SOEs enjoyed the necessary financial and human resources apart from large market that can make any type of business succeed. The fact is no systematic and scientific attempt made to measure financial and operating performance of the privatized firms in the country. Although Jerome (2008) carried out anecdotal study analyzing privatized firms' performance in Nigeria no firm conclusion can be drawn from the study due to limitedness of sample and the sample size was not scientifically choosing. At this point, it is very imperative to note the paucity of empirical research on the post performances assessment of privatized public enterprises particularly in Nigeria and SSA at large as equally noted by (Nills, 2005). Therefore, a work on the performance assessment of privatized public enterprises is very vital.

Although many scholars have carried out research on privatization and the effects of privatization on firm performance in different part of the world, virtually no rigorous research reported in the published literature provides information about the effects of privatization on the firm performance in Nigeria. In fact Jerome (2008) for instance, uses three privatized SOEs as a sample. One companies each from banking, petroleum marketing and manufacturing sectors. Likewise in Zakari *et al.* (2012) two companies are from insurance industry, two from petroleum marketing sector, four companies are from manufacturing sector and two companies are from banking industry making a total

of 10 companies used as sample, meanwhile and Magaji and Hassan (2012) uses a company as sample. Therefore, no firmed conclusion can be drawn from the findings of these studies due to limitedness of sample and the sample size was not scientifically choosing and this leads to sample biase. Therefore, the goal of this research is to fill that void. Moreover, much remains to be learned about the effects of privatization on different aspects of the economy. It is acknowledged that efforts in this direction are by no means exhaustive the hope is that this research is going to be a useful step.

1.3 Research Questions

The following are research questions for this study:

- i. Does general performance of SOEs improvement after privatization?
- ii. Does profitability improved after SOEs have been privatized?
- iii. Is operating efficiency improve after SOEs have been privatized?

1.4 Research Objectives

The general objective of this research is to appraise the performance of privatized SOEs in Nigeria. The specific objectives include:

- i. to examine the general performance of privatized SOEs
- ii. to evaluate the profitability of privatized SOEs
- iii. to assess the operating efficiency of privatized SOEs

1.5 Scope of the Study

This study focuses on the SOEs in Nigeria, their performance and the circumstances that led to privatizing them. The process of privatizing SOEs in Nigeria is also part of the scope of this work. Again, the study make analysis of the performance of privatized enterprises, especially those enterprises privatized through the public offer of shares in the Nigeria Stock Exchange Market (NSEM). The pre- and the post- privatization performance is the main concerned of this study. The performance is measured through the use of pre- and post- financial data which are obtained from firm's annual reports.

1.6 Significance of the Study

The importance of SOEs in an economy can hardly be over emphases. Governments of countries all over the world strives hard to create and maintain SOEs for even distribution of resources, economic growth and development. Unfortunately, these enterprises developed problems and became a source of economic instability and stagnation especially in SSA and Nigeria in particular. Privatization had being used as one of the solutions to SOEs problems over the last three decades, but since then there is no scientific and systematic post privatization performance evaluation of SOEs in Nigeria, this is what this study envisages to do. Similarly, the study hoped to contribute in the ongoing debate in the theoretical and empirical literature over the amount of government ownership that influences enterprise performance.

The study is hoping to make significant methodological contribution by using panel data technique of analysis. It is the hope of this research not only fills in these gaps but is also expected to help the policy makers fine-tuned privatization policy hence the policy makers will have an empirical post performance appraisal of the privatized enterprises. The policy makers will now be better informed about the general condition of SOEs in the country. On the other hand, the business firms are expected to benefit hence the source of inefficiency will be blocked and their performance will be improved.

1.7 Organization of Thesis

This thesis is organized into seven chapters. Chapter One covers the background of the study. It also covers problems statement, research question and objectives of the study. In Chapter Two, the public enterprises and the process of privatization in Nigeria are discussed as prelude information. Chapter Three is on the literatures review. Chapter Four is concerned the theoretical framework of the study. Meanwhile Chapter Five discusses methodology. Chapter Six is the presentation and discussion of the results. Chapter Seven covers summary, policy implication, limitation of study, and conclusion.

CHAPTER TWO

PRIVATIZATION PROCESS IN NIGERIA

2.0 Introduction

This chapter traces the evaluation of SOEs in Nigeria and the magnitude of investment in it. The chapter also highlights some problems of Nigerian SOEs as an antecedent to privatization programme. Finally, the chapter discusses the methods of privatization used. Nigeria is a middle income, mixed economy and emerging market, with expanding financial and service sectors. It is ranked 30th in the world in terms of GDP as at 2011. Although Nigeria has underperforming manufacturing sector, it is still the third-largest on the continent, producing a large proportion of goods and services for West African region. Hindered by years of mismanagement and corruption, privatization as economic reforms policy is hoping to put Nigeria back on track towards achieving its full economic potential.

2.1 Area of the Study

Nigeria as a country has 36 states and Federal Capital Territory, Abuja. The country is located in West African Territory and share land borders with the Republic of Benin (773 kilometers) in the west, Chad (87 kilometers) and Cameroon (1,690 kilometers) in the east, and Niger (1,497 kilometers) in the north. Its coast in the south lies on the Gulf of Guinea on the Atlantic Ocean. Nigeria has an area of 923,768 square kilometers,

including 13,000 square kilometers of water. Nigeria has five major geographic regions which include low coastal zone along the Gulf of Guinea; hills and low plateaus north of the coastal zone; the Niger–Benue river valley; a broad stepped plateau stretching to the northern border with elevations exceeding 1,200 meters; and a mountainous zone along the eastern border. The country has two principal rivers i.e. the Niger–Benue and the Chad. The Niger River, the largest in West Africa flows 4,000 kilometers from Guinea through Mali, Niger, Benin, and Nigeria before emptying into the Gulf of Guinea. The River Benue, the Niger’s largest tributary flows 1,400 kilometers from Cameroon into Nigeria, where it empties into the Niger River. The country’s other river system involves various rivers that merge into the Yobe River, which then flows along the border with Niger and empties into Lake Chad.

Climate: Nigeria’s climate is arid in the north, tropical in the center, and equatorial in the south. Variations are governed by the interaction of moist southwest monsoon and dry northeast winds. Mean maximum temperatures are 30°C – 32°C in the south and 33°C – 35°C in the north. High humidity is experienced from February to November in the south and from June to September in the north. Low humidity coincides with the dry season. Annual rainfall decreases northward; rainfall ranges from 2,000 millimeters in the coastal zone to 500 – 750 millimeters in the north.

2.2 Nigerian Economy

Nigeria is a middle income, mixed economy and emerging market, with expanding financial, service, communications, and entertainment sectors. It is ranked 30th in the

world in terms of GDP as at 2011, Although Nigeria is growing through underperforming manufacturing sector is the third-largest on the continent, producing a large proportion of goods and services for the West African region. Hindered by years of mismanagement and corruption, privatization as economic reforms is hoping to put Nigeria back on track towards achieving its full economic potential. Nigeria GDP at purchasing power parity more than doubled from USD170.7 billion in 2005 to USD413.4 billion in 2011, although estimates of the size of the informal sector which is not included in official figures put the actual numbers to USD520 billion. Correspondingly, the GDP per capital doubled from USD120 per person in 2011 (again, with the inclusion of the informal sector, it is estimated USD2.600 per capital hovers around USD3.500 per person). It is the largest economy in the West African Region.

Nigeria produces 2.7 percent of the world's supply of crude oil and has estimated export rate of one point nine million barrels per day (1.9 Mbbl/d). Nigeria's anticipated revenue from petroleum is about USD52.2 billion. This accounts for less than 14 percent of official GDP. The oil reserves have brought great revenues to the country, though the petroleum sector is important, it remains in fact a small part of the country's overall vibrant and diversified economy. The local pump price of P.M.S. in Nigeria currently stands at ₦97, but some fueling station especially in towns far from the state capitals, tend to sell the product at a much higher price, ranging from ₦110 to ₦140. An initial increase in the price of petroleum in 2012 New Year day from ₦65 to ₦138 triggered off a total strike and massive protests across the country. The federal government later reached an agreement with the Nigerian Labour Congress (NLC) and reduced the pump price to ₦97. Nigeria's economy is struggling to leverage the country's vast wealth in

fossil fuels in order to displace the crushing poverty that effects about 57 percent of its population. Economists refer to the coexistence of vast wealth in natural resources and extreme personal poverty in developing countries like Nigeria as the “resources curse” which is widely understood to mean an abundance of natural resources which fuels official corruption resulting in violent competition for the resource by the citizens of the nation. Nigeria`s exports of oil and natural gas-at a time of peak prices-have enabled the country to post merchandise trade and current account surpluses in the recent years. Reportedly, 80 percent of Nigeria`s energy revenues flow to the government, 16 percent cover operational costs, and the remaining four percent go to investors. However, the World Bank one percent of the population.

2.3 Agriculture

The largely subsistence agricultural sector has not kept up with rapid population growth, and Nigeria, once a large net exporter of food, now imports a large quantity of its food product. Agriculture has suffered from years of mismanagement, inconsistent and poorly conceived government policies, neglect and the lack of basic infrastructure. Still, the sector accounts for over 36.8 percent of GDP and two-thirds of employment. Nigeria is no longer a major export of cocoa, groundnuts, peanuts, rubber and palm-oil. Cocoa production, mostly from obsolete varieties and overage trees, is stagnant at around 180,000 tons annually; 25 years ago it was 300,000 tons. An even more dramatic decline in groundnut and palm oil production also has taken place. Once the biggest poultry producer in Africa, corporate poultry output has been slashed from 40 million birds annually to about 18 million. Import constraints limit the availability of many

agricultural and food processing inputs for poultry and other sectors. Fisheries are poorly managed. Most critical for the country's future, Nigeria's land tenure system does not encourage long-term investment in technology or modern production methods and does not inspire the availability of rural credit. Agricultural products include cassava (tapioca), corn, millet, palm oil, peanuts, rice, rubber, sorghum, and yams. In 2003 livestock production, in order of metric tonnage, featured eggs, milk, beef and veal, poultry, and pork, respectively. In the same, the total fishing catch was 505.8 metric tons.

Round wood removals totaled slightly less than 70 million cubic meters, and sawn wood production was estimated at two million cubic meters. The agricultural production rose by 28 percent during the 1990s, per capita output rose by only 8.5 percent during the same decade. Agriculture has failed to keep pace with Nigeria's rapid population growth, so that the country, which once exported food, now relies on imports to sustain itself.

2.4 Industry

The oil boom of the 1970s led Nigeria to neglect its agricultural and light manufacturing bases in favor of an unhealthy dependence on crude oil. In 2000, oil and gas exports accounted for more than 98 percent of export earnings and about 83 percent of federal government revenue. New oil wealth, the concurrent decline of other economic sectors, and a lurch towards a statist economics model fueled massive migration to the cities and lead to increasingly widespread poverty, especially in rural areas. A collapse of basic

infrastructure and social services since the early 1980s accompanied this trend. Oil dependency, and the allure it generated of great wealth through government contracts, spawned other economic distortions. The country's high propensity to import roughly 80 percent of government expenditure is recycled into foreign exchange. Cheap consumer imports, resulting from a high domestic production costs due in part to erratic electricity and fuel supply, pushed down utilization of industrial capacity to less than 30 percent. Many more Nigerian factories would have closed except for relatively low labor costs (10 – 15 percent). Domestic manufacturers, especially pharmaceuticals and textiles, have lost their ability to compete in traditional regional markets.

2.5 Services

Since undergoing severe distress in the mid-1990s, Nigeria's banking sector has witnessed significant growth over the last few years as new banks enter the financial market. Harsh monetary policies implemented by the Central Bank of Nigeria (CBN) to absorb excess Naira liquidity in the economy has made life more difficult for bank, some of whom engage on currency arbitrage (round-tripping) activities that generally fall outside legal banking mechanisms. Private sector-led economic growth remains stymied by high cost of doing business in Nigeria, including the need to duplicate essential infrastructure, the threat of crime and associated need for security counter measure, the lack of effective due process, and non-transparent economic decision making, especially in government contracting. As of 2007, 29 percent of Nigerians in urban areas did not own bank accounts. While corrupt practices are endemic, they are generally less flagrant than during military rule, and there are signs of improvement. Meanwhile, since 1999

the NSE has enjoined strong performance, although equity as a means to foster corporate growth remains underutilized by Nigeria's private sector.

2.6 Transport

Nigeria's publicly owned transportation infrastructure is a major constraint to economic development. Principal ports are at Lagos (Apapa and Tin Can Island), Port Harcourt, and Calabar. Docking fees for freighters are among the highest in the world. Of the 80,500 kilometers are officially paved, but many remain in poor shape. Extensive road repairs and new construction activities are gradually being implemented as state governments, in particular, spend their portions of enhanced government revenue allocations. The government implementation of 100 percent destination inspection of all goods entering Nigeria has resulted in long delays in clearing goods for importers and created new sources of corruption, since the ports lack adequate facilities to carry out the inspection. Four of Nigeria airports-Lagos, Kano, Port Harcourt, and Abuja-currently receive international flights. Government-owned Nigeria Airways ceased operations in December 2002. Virgin Nigeria Airways started operations in 2005 as a replacement and serves domestic and international routes. There are several domestic private Nigerian carriers, and air service among Nigeria's cities is generally dependable. The maintenance culture of Nigeria's domestic airlines is not up internationally accepted standards.

2.7 Labour Force.

Demography: In 2008 Nigeria's age distribution was estimated as follows: 0 – 14 years, 42.2 percent; 15 – 64 years, 54.7 percent; and 65 years and older, 3.1 percent. The birthrate was 39.98 births and the death rate, 16.41 deaths per 1,000 people. The infant mortality rate was 93.93 deaths per 1,000 live births. Life expectancy was about 47.8 years on average, or 47.2 years for males and 48.5 years for females. The fertility rate was 5.41 children per woman. The sex ratio at birth was 1.03 males per female.

In 2005, Nigeria had a labour force of 52.7 million. In 2003, the unemployment rate was 10.8 percent overall; urban unemployment of 12.3 percent exceeded rural unemployment of 7.4 percent. According to the latest available information from 1999, labour force employment by sector was as follows: 70 percent in agriculture, 20 percent in service, and 10 percent in industry. Labour unions, which have undergone periods of militancy and quiescence, reemerged as a force in 1998 when they regained independence from government. Since 1999, the Nigerian Labour Congress (NLC), a union umbrella organization, has called six general strikes to protest domestic fuel price increases. However, in March 2005, the NLC was lobbying for an increase in the minimum wage for federal workers. The existing minimum wage, which was introduced six years earlier but has been adjusted since has been whittled away by inflation to only USD42.80 per month.

According to the International Organization for Migration, the number of immigrants residing in Nigeria has more than doubled in recent decade from 447,135 in 1990 to 119 to

971,450 in 2005. The majority of immigrants in Nigeria (74 percent) are from neighboring Economic Community of West African States (ECOWAS), and that this number has increased considerably over the last decade, from 63 percent in 2001 to 97 percent in 2005. In spite of immigrating to, Nigeria with the negative net migration rate (per 1,000 people) steadily increasing in recent years, from -0.2 in 2000 to -0.3 in 2005, and this trend is expected to continue. According to recent estimates the net migration rate could reach -0.4 in 2010.

2.8 Human capital

Human capital is an important factor for wealth of a nation due to its influence on the overall production of the country. Technologically progress can provide more efficient production-methods like machines and computers, but skilled labour is necessary to manage and develop them as well as to improve the quality and productivity of the existing labour. The information of Nigeria's human capital is therefore of great importance in the coming years if Nigeria wants to be competitive in future. However, Nigeria is having a problem with its human capital.

The Human Capital Development Index (HDI) provides a measure of human development in three dimensions: income, health, and education, the latest values of HDI shows that Nigeria is ranked 156 with value of 0.459 among 187 countries, the placing Nigeria in the bottom, meaning that Nigeria is considered to have low level human development. The comparative value for SSA is 0.463, 0.910 for the United States of America (USA), and 0.682 for the world average. The HDI of SSA as a region

increased from 0.365 in 1980 to 0.463 today, which places Nigeria below the regional average.

The value for the education index is 0.44, compared to the average in the USA of 0.94. The expected years of schooling in Nigeria is 8.9 (16.00 in the USA), while the mean years of schooling for adults over 25 years is 5.0 years (12.4 years in the USA). Additionally, Nigeria is also facing a relatively high inequality, worsening the problem regarding the formation of human capital. The income distribution for the poorest (bottom 10 percent) is 1.6 percent while it is 40.8 percent for the richest (top 10 percent). Among 114 countries the income distribution places Nigeria respectively in 94th position for the poorest and 17th for the richest.

Even though human capital is only one factor of many that drives development and associated economic growth, it is very important factor for the development process for a developing country like Nigeria. The productive capacity of a country is related to the level of human capital, explaining why human capital formation must be considered of great importance in the future.

2.9 Investment

Although Nigeria must grapple with its decaying infrastructure and a poor regulatory environment, the country possesses many positive attributes for carefully targeted investment and will expand as both a regional and international market player. Profitable niche outside the energy sector, like specialized telecommunication providers, have

developed under the government's reform program. There is a growing Nigerian Consensus that foreign investment is essential to realizing Nigeria's vast but squandered potential. European investments are increasing, especially since Belgian consultancy companies such as exploring the Nigerian market.

Companies interested in long-term investment and joint ventures, especially those that use locally materials, will find opportunities in the large national market. However, to improve prospects for success, potential investors must educate themselves extensively on local conditions and business practices, establish a local presence, and choose their partners carefully. The Nigerian Government is keenly aware that sustaining democratic principles, enhancing security for life and property, and rebuilding and maintaining infrastructure are necessary for the country to attract foreign investment.

The stock market capitalization of listed companies in Nigeria was valued at USD97.75 billion on 15 February 2008 by the NSE. In 2007 Nigeria received a net inflow of USD6.1 billion of foreign direct investment (FDI), much of which came from Nigerians in the diaspora. Most FDI is directed toward the energy and banking sectors. Any public designed to encourage inflow of foreign capital is capable of generating employment opportunities within the domestic economy.

2.10 The Nigerian Public Sector

In Nigeria, initially the state direct economic activity had been limited to public utility especially electricity, water, telecommunication, transport, the regional finance,

development corporations and the marketing boards in 1950s and the 1960s. During this era, the Government was unenthusiastic to commit substantial public resources to direct production (Lewis, 1990). Amid 1962 and 1965, the share of the public sector was therefore only around nine percent of the GDP (Obi, 1986).

The fast expansion of the public sector in Nigerian started with the rebuilding of the economy after the Civil War 1967 – 70 and also with the immense increase of government revenue from oil exports in the 1970s. The growth and enlargement of the public sector was again influenced by the new conviction of the government that in the interest of accelerated economic growth, national self-reliance and national security the state should bear greater economic responsibilities.

To this end, the Second National Development Plan (1970 – 1975) has clearly shown the new economic drive of the government i.e. to claim the commanding heights of the economy. The conviction made Nigeria developed a large parastatals sector which composed of such economic activities as banking and insurance; oil refining and marketing; cement, paper and steel mills; hotels and tourism; sugar estates; iron and steel industry, and petrochemicals (Zayyad, 1990; Lewis, 1990). The indigenization policy of the 1970s was also part of this new economic thinking and contributed to the growth of the public sector. According to Obi (1986), the public sector's share of the GDP increased to 39 percent in 1974 and 55 percent in 1979.

A precise data on the magnitude and disposition of the Nigerian public sector are baffling and sometimes contradictory. Nellis (1986) had 107 wholly or partly SOEs in

1981, Usman (1989) mentioned more than 500 companies and enterprises in which the federal government had investments in 1986. But a survey conducted by TCPC in 1998 shows that there are 600 public enterprises at the national and 900 at the state and local government levels. In the opinion of Lewis (1990) the SOEs are around 275 federally owned and more than 600 public enterprises owned by states government in the Nigerian Federation.

The same way, Sandra (1987) mentioned that the whole federation 3,000 public enterprises and government companies, spanning all sectors of the economy. It is my belief, however, that the number of public enterprises owned by both federal and state governments may not exceeds 1,500 as put forward by (Zayyad, 1990; Jerome, 2008). In spite of the differences in the number of SOEs; it is quite clear that 111 SOEs have been involved in the privatization program in Nigeria (Appendix I).

These public enterprises accounted for between 30 and 40 percent of capital investments and about the same proportion of formal sector employment as at 1998 (Zayyad, 1998). Similarly, Jerome (2008) opined that the Nigerian public enterprises sector accounted for about 57 percent of the aggregate fixed capital investment and about 66 percent of the formal sector employment by 1997. The Nigerian government, on the other hand, announced that by 1984 there were about 100 public enterprises in which it had invested about ₦23 billion since 1980. In the period of 1980 to 1985, close to 40 percent of the Federal Government's yearly non-salary recurrent expenditure and 30 percent of its capital investment budget were spent by public enterprises (Olukoshi, 1990).

In fact, it is estimated that successive Nigerian governments invested about ₦800 billion in the public enterprises sector over two decades and net outflows from the government to the sector have been estimated at USD2 billion annually (Callaghy & Wilson, 1988). The returns on these investments have always being unfortunate, and in a number of cases negative. The return had never exceeded two percent per annum, which is less than 25 percent of the yearly subventions from the government to the public enterprise sector. These indicated that the investments provided meager returns, yielding USD1.5 billion in dividends and loan repayments from 1980 to 1987 (Federal Government of Nigeria, 1986).

2.11 The Problems of State-Owned Enterprises in Nigeria

The problems of public enterprises in Nigeria are similar to those of public enterprises in less developed countries. The problems include the multiple and conflicting objectives, incomplete contracts, government subsidies that protect internal inefficiencies and perpetrate soft budget constraints, low profitability and low efficiency, poor accounting and reporting systems, lack accountability and poor management due to political and bureaucratic interference, the large scale corruption, political consideration rather than economic viability, inefficiencies due to misuse of monopoly powers especially in infrastructure resulting in unreliable delivery and availability of services.

Other aiding factors are excessive bureaucratic controls and government intervention; inadequate policy and regulatory frameworks that obstruct competition, discourage private entry and private investment; weak capacity to implement reform; and gross

mismanagement. These problems were compounded by a control and management structure that was extremely complex, dense and flat to political capture (Obi, 1986; Lewis, 199; Zayyad, 1990; Jerome, 2008). Some of these problems have been with Nigerian public enterprises for a very long time.

For instance in May 1981, the Shagari Administration set up the Presidential Commission on Parastatals headed by Onosode. The commission examined the performance of public enterprises and suggested ways of how to enhance their performance. The commission in its report submitted in October 1981, recommended that selective privatisation was desirable, but should be restricted to areas not considered as security receptive (Onosode Report, 1981). Where privatisation cannot be conceded, the report continues, better performance should be expectant through performance targets set for boards and management of state parastatals. Even though, the Administration accepted these recommendations, its political inaction made it incapable of carrying out any meaningful reform.

Similarly, the report of the Study Group on Statutory Corporations and SOEs of 1984 was akin to that of the Onosode Commission. It recommended selective privatisation and the restructuring of enterprises mostly in the public utilities and infrastructure sector. Although the regime did not entertain the logic of privatisation, particularly in the area of public utilities; it however takes severe measures on those corporations. The measures included financial stringency, insistence on greater accountability and a substantial trim down of unproductive and redundant workforce in some of those corporations and parastatals.

2.12 Privatization Process in Nigeria

With all the facts from these reports no decisive action was taken to permanently solve SOEs problems until when Structural Adjustment Programme (SAP) was 1986 introduced in Nigeria. In that fiscal year, two important initiatives were introduced as far as the public sector reform was concerned. The first major was the 50 percent reduction of non-statutory allocations to all economic parastatals with effect from January 1986, and the confirmation of Federal Government's intention to disinvest of its holdings in a number of non-strategic enterprises (Olukoshi, 1990). In the mid-1986, a committee was set up in the Presidency to work out modalities of the privatization policy and categorized the Government's assets according to full or partial privatization (Olukoshi, 1990).

The committee in an attempt to start implementing the policy, commodity boards were disbanded, the Nigerian National Supply Company (NNSC) was dissolved in 1986. In 1987/88, the Federal Ministry of Agriculture and the Federal Ministry of Transport sold a number of agro allied and transport enterprises like the National Livestock Production Company, the Nigerian Ranches Company, or the National Freight Company (Olukoshi, 1990; Edozien & Adeoye, 1989).

It was 1988, that the implementation of privatization actually took off with the publication of the "Privatization and Commercialization Decree No. 25" of 1988 and with the inauguration of the TCPC as the body in charge for the implementation of the programme. The delay in transforming the administration's policy into reality has been

explained by frictions within the political class: apparently some sections of the political elite were concerned that in the process of privatization certain regional and ethnic groups might be at disadvantage in benefiting from the disinvestment because of their lack of access to the banking and therefore to capital needed to buy equity in the respective enterprises (Olashore, 1991; Olukoshi, 1990). Since there was already a general feeling that the gains of the indigenization policy of the 1970s had been distributed unfairly between the regions and the ethnic groups, with the major benefit going to the Yoruba, this concern had to be addressed properly to obtain the necessary consensus before the privatization policy could be fully implemented

The Decree No. 25 established four categories of public enterprises in which the Federal Government had full or partial ownership: Category I included those more strategic enterprises in the service and manufacturing sector which should be partially privatized and where ownership of the Federal Government and its agencies should be limited to a share of between 30 and 70 percent. This group included development banks, oil marketing companies, steel rolling mills, Nigerian Airways and the Nigerian National Shipping Line, fertilizer companies, paper mills, sugar companies and cement companies; later vehicle assembly plants, commercial and merchant banks were added.

Category II consisted of enterprises slated for full privatization; it included enterprises mainly in the food and beverages industry, agro-allied industries, transport companies, hotel and tourism enterprises and the insurance sector. In August 1992, the Federal Government decided to include commercial and merchant banks also under Category II, i.e. to divest fully of its shareholdings in these financial institutions. Category III listed

enterprises slated for partial commercialization, mainly the River Basin Development Authorities, the steel companies, major utilities like the National Electric Power Authority (NEPA) and Nigerian Railway Corporation (NRC), the National Airport Authority (NAA) and media enterprises. Category IV consisted of enterprises which in future should operate on full commercial terms, among them the Nigerian National Petroleum Company (NNPC), the telecommunication company NITEL and the Nigerian Ports Authority (NPA). With its latter amendments, Decree No.25 covered 145 public enterprises with equity held by the Federal Government. Decree No, 25 did not, however, affect shareholdings of State governments and their agencies.

The guidelines on privatization by TCPC (1989) talk about the restructuring of the public sector in order to lessen the supremacy of unproductive investment in the sector, performance improvement, viability and overall efficiency of the enterprises, the need to ensure positive return in public investment and to check the dependence of public enterprises on the treasury. The guidelines also mention the intention to withdraw from those activities best suited for the private sector.

The Decree No.25 of 1988 also focused on the technicalities of privatization by addressing issues like share valuation, issuance and distribution. The decree stipulated that the sale of shares by public offer was to be the main mode of privatization, only in cases where public offer for sale was not suitable; other methods of privatization like private placement or sale of assets should be employed. The decree made specific indications as to the distribution of shares between 10 to 20 percent should be allotted to associations and interest groups for example State investment agencies, trade unions,

market women associations, universities, community associations, not less than more than one percent of shares was to be allotted to each State and not more than 10 percent should be reserved for the staff of the company.

By indicating the future pattern of shareholdings, the government tried to dismiss fears that only a handful of rich and influential individuals or private sector institutions would benefit from the privatization. As a general rule, no individual should be allowed to hold more than one percent equity in any one enterprise. The TCPC was charged to ensure an even spread of ownership and to ensure a balanced and meaningful participation of all Nigerians and foreigners according to current Nigerian legislation (Usman, 1989). The allotment of shares to the State Governments was also meant to guarantee a certain level of regionally balanced distribution of shares.

Opposition to the privatization policy was voiced out by the National Labour Congress (NLC), which claimed that privatization was a sale of common wealth to money bags to the detriment of workers who created such wealth. However, the NLC has not been able to basically change the course of the policy. It was essentially the organized indigenous private sector such, as the major banks, Manufacturer' Association of Nigeria, Chamber of Commerce and the armed forces that supported privatization policy. The reaction of the Civil Service has been halfhearted; in general it has not openly opposed the policy but has also not been at the forefront of its implementation.

However, within the civil service a narrow but influential stratum of high-level technocrats and professionals supports the reform. These groups have exerted a crucial

impact on the formulation of privatization policy (Lewis, 1990). The Federal government had furthermore taken a number of steps to deregulate the economy in general. The reform of the exchange rate system, the removal of price controls, trade liberalization and rationalization of the tariff structure and the deregulation of the financial sector are among the majors. The modification of the indigenization laws was another important step, allowing foreign firms to acquire full equity in large-scale manufacturing and service firms, and enabling private domestic banks to invest in small and medium-scale manufacturing and agricultural enterprises (Lewis, 1990).

The objectives of the privatisation programme in Nigeria, according Zayyad (1990), includes to restructure and rationalize the public sector in order to lessen the dominance of unproductive investments in that sector; to encourage share ownership by Nigerians in productive investment hitherto owned wholly or partially by the government, and in the process to broaden the Nigeria Capital Market (NCM); to re-orientate the privatized enterprises towards a new horizon of performance improvement, viability and overall efficiency; to ensure positive returns on public sector investments in SOEs; to check the absolute dependence of parastatals on the Treasury for funding and to encourage their approaches to the NCM; to initiate the process of gradual cession to the private sector of such SOEs that by the nature of their operations are best performed by the private sector; to create a favorable investment climate for both local and foreign investors; to provide institutional arrangements and operational guidelines that will ensure gains of privatisation are sustained in the future.

For its operations the TCPC opted for the independent secretariat and according to Usman (1989) works by involving the private sector consulting firms, clearing houses, banks and estate valuers to carry out its functions. The slim structure of the Secretariat is accounted for by the use of outside professionals and Sub-Committees in the implementation of the programme as part of the TCPC's policy of broadening the participation base and tapping of Nigeria's vast manpower resource in both public and private sector (TCPC, 1991). In order to hasten the process of the execution of Privatisation Programme, the TCPC decided to adopt a multiple approach which includes:

- i. the use of sub-committees comprising educated individuals in society, selected on their personal merits to undertake diagnostic studies of affected enterprises on technical, financial, organizational and management aspects;
- ii. the appointment of Technical Advisory Groups (TAGs) consisting of trustworthy financial institutions to lead expert teams in undertaking similar diagnostic studies;
- iii. the appointment of Financial Advisers (FAs), generally merchant banks or accounting firms, with established experience and reputations, to prepare detailed briefs on capital restructuring of affected enterprises;
- iv. the assignment of professional staff in the TCPC Secretariat to undertake diagnostic work on simple cases of privatisation and to prepare information memoranda for the consideration of the TCPC; and
- v. the engagement of other professionals, such as issuing houses, estate valuers and legal practitioners to deal with different aspects of programme implementation.

The sub-committee approach was used in privatisation, especially where the enterprise was of strategic importance and multi-faceted. The approach enabled the TCPC to achieve the twin objectives of tapping the best human resources that Nigeria could offer and facilitating the widest participation of Nigerians in the implementation of the programme. What was more pleasing, according Zayyad (1990) was that the appointees to the sub-committee demonstrated extensive enthusiasm and commitment to their assigned responsibilities

2.13 Privatization Policy Implementation in Nigeria

The TCPC has evolved five methods in privatizing Nigerian public enterprises namely:

- i. Public offer for sale of shares of affected enterprises through the NSEM.
- ii. Private placement of shares of affected enterprises. TCPC resorted to this method of privatisation in cases where government holding is small that it cannot guarantee public offer of shares even where the enterprises fulfill the listing requirements of the NSEM.
- iii. The sale of assets where the affected enterprise cannot be sold either by public offer of shares or by private placement of shares. Such enterprises have a poor trail of record and its future outlook is hopeless.
- iv. Management Buy Out (MBO). Under this method, the entire or significant part, of the enterprise is sold to the workers. It is entirely up to them to organize and manage it.

- v. Deferred Public Offer (DPO). This method of privatisation it occurs in enterprises which are viable, but if sold by shares the value to be realized will be out of harmony with the value of the underlying assets of the enterprise.

The choice of public offer for sale as the prime method of privatisation, according TCPC (1993) was informed by the need for wider share ownership, and the aspiration to extend the frontiers and depth of the NCM. TCPC recognizes that there are advantages of using the NSEM as a common method of disposing shares, particularly in a developing economy like that of Nigeria.

The major disadvantages of public offer are:

- i. In a society with a high level of illiteracy, the burdensome formalities of prospectuses, a multiplicity of professionals, and complicated application forms that are to be returned through the few, and sometimes unapproachable banks and stockbrokers, can prove quite discouraging, inexplicable and therefore unattractive, not only to the illiterate, but also to a large section of the semiliterate population.
- ii. There are also geo-political imbalances arising from unequal regional distribution of income, education, banking and stock broking facilities. For instance, out of 2,200 branches of banks and stock broking companies in Nigeria nearly 300 branches were based in Lagos alone (TCPC, 1993).

One of the major troubles with privatization in developing countries like Nigeria has to do with the level of development of the national capital market and its ability to absorb

the equity. This concern was also raised in the context of the Nigerian privatization policy because a substantial amount of capital was needed. The onetime TCPC's chairman Zayyad indicated that in 1990 and 1991 alone the NCM would have to provide about ₦1.6 billion each year (Zayyad, 1990). Lewis (1990) gives the total value of shares for offer as more than USD2.3 billion. By April 1992, the number of listed companies had increased to 135 and the share sales represented about 17 percent of new flotation on the NSEM.

But the stock exchange medium has numerous advantages. It enables TCPC to reach a larger audience, and provide a more objective a locative device devoid of the bitter suspicion of favoritism, more likely to occur in the sale of the shares under private placement. If properly published, it can generate a large body of new shareholder class, who have a vested interest in seeing that the enterprises are sprint profitably, and as a result higher accountability and a check on the management. It has deepened the NSEM and facilitated the development of unit trusts as a medium of investment for small holders, thereby creating the popular capitalism. The stock exchange approach, when compared with private placement, is much more artistic with the focus of all parties being to ensure that the enterprise is sold as a going concern.

TCPC first privatized enterprises with the best prospects in order to encourage participation in the exercise. The first two firms to be privatized by public offer namely: Flour Mills of Nigeria and African Petroleum were already quoted on the NSEM. Owing to the massive promotion crusade by TCPC, both offers were heavily oversubscribed (TCPC, 1989). In order to achieve the objective of wide share ownership, the TCPC

used channels outside the traditional outlets of banks and stock brokers to disseminate the application forms. The application forms were disseminated through post offices, local government headquarters and state agencies like state ministries and investment companies (TCPC, 1989). In the subsequent public offer, the minimum number of shares to be bought was reduced from 200 to only 100 in order to allow people with small savings to participate in the privatization.

The TCPC also banned the transfer of ownerships of shares for a period of five years in order to alleviate fears of small-scale buyers acting as fronts for individuals attempting to gain a big chance and evade the percent limit. Another concern of the TCPC was the regional distribution of shares. In the first public offer the TCPC approached the governments of those states where few applications for shares had been received in order to promote the privatization exercise and to obtain more public support by the state authorities. As a consequence, some state governments provided loans to senior civil servants in order to enable them to participate in the privatization (TCPC, 1989).

The management decisions affecting the privatized enterprises would originate from policy decisions reached by the boards constituted by the new owners. Government, having divested its entire equity holding, would have no hand in the running of the enterprises or in the decision-making affecting the enterprises, apart from the provision of the general infrastructural and legal framework and the maintenance of a political and economic environment conducive to the operation of business. The fully privatized enterprises are expected to obtain their funds from the capital market, from additional

equity contributions or from reserves. These enterprises would be expected to pay reasonable dividends to their shareholders.

CHAPTER THREE

LITERATURE REVIEW

3.0 Introduction

In this chapter, the various conceptual definitions of privatization and theories of privatization are discussed. There is also a discussion on microeconomic of privatization. Likewise, the concept of performance is critically viewed, followed with theories of performance. The performance of privatized enterprises in some countries has also been discussed. The chapter concluded with a brief summary.

3.1 The Role of State-Owned Enterprises in an Economy

SOEs are legal entities that are created by the government. SOEs can be either wholly owned or partially owned by government and is meant to participate in commercial activities. Public enterprise or state-controlled enterprise is defined as a separate legal entity owned by government. Sometimes, SOEs are also known as government-owned corporations (GOC). According to Laux and Molot (1988), SOEs has a distinct accounting system and is engaged in industrial, commercial or financial activities from which it is expected to earn a significant portion of its revenues. Furthermore, Laux and Molot (1988) concluded that the units responsible for daily management of the state bureaucracy are not SOEs.

The theoretical underpinning of public enterprises is rooted in Keynesian analysis. Similarly, the literature of the mainstream economics after the First World War accepted the wisdom of direct government intervention in economic activities in order to deal with market imperfection and economic failure in the advanced capitalist countries (ACCs). Even though the market could be efficient in terms of production, distribution and exchange, it has some limitations; hence market failure in capitalist system has justified the need for public enterprises in order to correct the distortions implicitly and explicitly generated by reliance on the market mechanism. Keynes, in particular, when reacting to the depression of 1930s, explicitly believed that the autonomous self-adjusting market mechanism of the classical economics has broken down. Therefore, government must intervene to restore the equilibrium in the economy (Keynes, 1936). In addition, the huge resources needed to reconstruct Europe from the ruin of the Second World War, which only government could provide, gave Keynesians a boost and provided additional impetus for the extension of the public sector.

Furthermore, the liberal school thought has based case for establishing public enterprises especially within the manufacturing sector on the need to maximize backward and forward linkages in production. It is argued, according to Yahaya (1991), that the backward and forward linkages effect would be used as a measure of performance in this paradigm. Also, within the radical political economic perspective, the state as an agent of the dominant classes is seen as an important agency for performing same functions on behalf of capital, especially in developing countries. These include the establishment of infrastructure, generating linkage, conducting research and development, training, and

provision of certain social amenities. Such functions, Yahaya (1991) argued, important for private accumulation, will rarely be performed by private capital.

Therefore, because of the 'market failure', most development economists have argued for the establishment of SOEs in order to correct misallocation of resources. Hence, most developing countries restored to planning to guide the allocation of scarce resources and development path. UNCTAD (1993) therefore believed that public enterprises were created to correct market failure, provide public goods, control natural monopoly, and seize the commanding heights of the economy.

Public enterprises were more relevant in Africa because the productive structure were heavily biased towards primary exports; market relationships were comparatively under developed. Local entrepreneurship and local private capital, combined with the infant-industry argument reinforced the need for the state to promote development through the establishment of specific agencies (UNCTAD, 1993).

The other broader considerations for the existence of public enterprise in African economies include, in view of undeveloped capital markets, a government may have to step into establish firms in many areas where the country may have a dynamic comparative advantage, but where the scale of investment required is too large e.g. steel, chemical, etc for the private sector undertaking.

Similar conditions apply even more strongly to the large infrastructure investments in African countries and other developing countries (electricity, transport, communication,

etc. Moreover, these industries often tend to be natural monopolies, which can provide in many circumstances an additional justification for the establishment of public enterprise.

3.2 The Concept of Privatization

The literature reveals a lack of clear-cut definition of the term privatization. Privatization is often employed to describe a range of policy initiatives designed to alter the ownership and management of public enterprises away from government to the private sector. It implies transfer of control, as a result of transfer of ownership right, from the public to the private sector. Privatization also entails a transfer of the provision of a good or service from public to private sector.

The concept of privatization covers range of ideas and policies. It has unambiguous political origins and objectives. Privatization emerges from a movement against the growth of government in the west countries and represents the most serious effort of the recent time to formulate an alternative. Privatization not only aim to return services to the private sector, but also seek to create new kinds of market relations and promise results superior to conventional public programs.

According to Musolf and Seilman (2006), the term privatization means any shift of economic activity performed by SOEs to the private sector. It also means a shift of the production of goods and services to private sector from public sector. Musolf and Seilman (2006) are of the opinion that looking at the wider definition of privatization

may include reductions in the regulatory and spending activity of the state. The current wave of privatization initiatives opens a new chapter in the conflict over the public-private balance. Privatization gains wide circulation in the 1970s and early 1980s with the conservative governments in the U.K., the USA and France.

Conceptually, privatization refers to moving away from the public to the private sector, not movement within sectors. Therefore the conversion of a state agency into autonomous SOEs is not privatization, though the action may put the enterprise on a commercial footing. This change might be viewed as commercialization which is a preliminary stage to privatization. It should be noted that shifts from publicly to privately produced goods or services may result not only from a deliberate state action, but also from individual choices or firms that a government is unable to satisfy. In many countries such as the USA, private demand for social services such as education, health care, or retirement income has outstripped public provision. As a result, private medical care, private schools, and pensions have grown to relatively bigger size, and such situation is recognized as demand motivated privatization. When privatization is a demand-driven, it does not require reduction in publicly produced services.

Privatization may also be defined as the substitution of public goods for private goods. A public good, in the economics, has two important properties, one of the properties is that a person's consumption of it does not preclude another and excluding any person from its consumption is costly, if not impossible (Starr, 1988). The above forms of privatization differ in the extent to which finance, ownership and accountability are in the public sector.

The implications of privatization vary. According to Starr (1988), in partial privatization, the government may continue to own SOEs but not to manage its assets or the government may continue to finance its activities but not to operate its services. Privatization may, therefore, dilute government control and accountability without eliminating it. Where governments pay for privately produced services, tax collection must continue. In this case, privatization diminishes the operational but not the fiscal or functional aspect of government action. On the other hand, when government put the delivery of services into the hands of a third party, it may divert claims and complaints to private organizations, but the government also risk seeing those third parties become powerful claimants.

Privatization has also been conceptualized in different ways. According to Ibrahim (1992), privatization is the curtailment of overextended public enterprise and overhaul of loss marking parastatals, increasing the efficiency and profitability of SOEs by restructuring incentive for managers, allowing competition from private firms (including foreign), encouraging the private sector to perform the activities it best handle, and allowing the state to focus on managing the macro-economy, providing educational, health services and infrastructure. Privatization, according to Ibrahim (1992) includes providing more appropriate price of the product and services produced by state enterprises such as electricity to reflect marginal costs. In general, therefore, privatization involves the reduction of public sector intervention in economic activity. In this way, the nature of privatization will vary according to the public sector intervention.

Likewise, Usman (1987) opined that privatization could involve reduction in state provision of goods and services through the sale of government shares, expansion of private health care, privately provided education etc. It may also mean the reduction in government subsidy by introducing user charges where they did not exist or the combination of the measures above.

Thus, there is an obvious need to consider privatization along the functions of public enterprise reforms. In other words, privatization is not always a substitution of public provision with private provision by unregulated market operators and profit maximizing firms, a time it is simply provision by the same or another public enterprise which is operating under less regulated and more competitive environment.

Furthermore, Usman (1999) conceptualized privatization to involve redefining the role of government by having it disengaged from activities, which are best handled by the private sector operators and selling all its ordinary shareholding in the designated enterprise, while partial privatization means disinvestments by the Federal government of parts of its ordinary shareholding in the designated enterprises. Others with similar view of privatization for instance Cook and Kirk (1988) and Jerome (1999) observed that privatization reflects new policy initiative geared to alter the balance between the private sector and public sector.

Nankani (1990) in his view, privatization is the transfer of public sector activities to private sector. It takes various forms including load shedding, management buyout, management contract, deregulation, liberalization as well as outright liquidation of

SOEs. Similarly, Nills (1991) includes divestiture to the conception of privatization and divestiture involves the full range of mechanism including full or partial leasing arrangement, transfer of ownership, the sale of assets or contracting out.

According to Ayodele (1999), full privatization has two approaches, the macro and micro approaches. The macro approach to privatization is theoretically a sector-wide approach which is predicated on the stringent assumption that all public enterprises share common problem. The problem constitute the base of public enterprises failure to get the maximum possible output from the inputs it use and so requiring a common frame work to solve. The approach provides a concrete base for the liquidation of nonviable enterprises, the sale of those with commercial orientation. Meanwhile micro approach to privatization concentrates on one enterprise at a time for some changes before moving to several others, i.e. one after another. Such changes are expected to emerge from the process, structure, size, functions and operations of the enterprise which is affected. The obtained experiences from one enterprise could ease the solving of the problems in subsequent enterprise

3.3 The Theories of Privatization

The theories justifying privatization as public policy draw their inspiration from several different visions of good quality society. The most prominent is the vision grounded in laissez-faire and free market economy that promises property rights, greater efficiency, a smaller government, more individual choice and free market forces. The second vision is rooted in a more socially minded tradition that promises return of power to communities

through a greater reliance on institutions, families, and other nonprofit institutes. In this view, privatization means devolution of power from the state to nonpolitical and noncommercial forms of human social groups. Another perspective sees privatization as a political strategy for diverting demands away from the state and thereby reducing government load (Starr, 1989).

This last view does not conflict with the other two indeed, some privatization advocates draw from all three but each vision suggests a different framework for policy and analysis. According to Starr (1989) within the economic theory of privatization, there are some small but important differences within the radical view of privatization as a reassignment of property rights and the view of privatization as an instrument for fine-tuning the economy.

Privatizations form the core of the market-based alternative to the managing SOEs. It plays crucial role in the structural adjustment programme generally implemented in both developing and developed countries. The schools of thought supporting privatization contends that the reforms will bring efficiency gains in service delivery due to discipline imposed by the profit motive and will reduce the scope of political interference (Kate, 2001). Supported by Neoclassical property right theory, productive efficient theory, agency theory, as well as efficiency a locative theory, the proponent of privatization believe that this economic reform offer the best opportunities for improving efficiency in public enterprise management and service delivery.

Production efficiency theory focuses on a decrease in production costs, which can be achieved by proper management and right incentives. The theory requires that all firms operate using best-practice technological and managerial processes. By improving these processes, an economy can extend its production frontier outward and increase efficiency further. In this regard, Neoclassical economists argue that efficiency-enhancing policies implementation is stimulated by private ownership.

On the other hand, property right is a theoretical construct in economics for determining how a resource is owned and used. Property rights attribute of economic good which has the following components namely, the right to use the good, the right to earn income from the good, the right to transfer the good to others, and the right to enforcement of the property rights. It is worth noting that in economics, property usually refers to ownership and control over the use of the means of production and the means of production could be owned by the state, individuals, those who use it or held in common by the society, it therefore focuses on the ability of an individual or collective to control the use of the good.

The property rights of a good must be defined, their use must be monitored, and possession must be enforced. In this case the institutions of property rights must be recognized. The following is ordered from no property right defined to property rights being held either by state, common property or private property. According to Ali (2000), property rights are instrumental in achieving a locative and productive efficiency with respect to use of resources by firm. Ali (2000) further, argues that abolishing the

public sector property right has a positive impact on the productive performance and innovation of the firm.

Agency theory states that agents act merely out of self-interest and therefore incentives have to be offered that motivate them to adjust their aims to those of the enterprise. Agency school of thought is concerned about the relationship in particular the conflict of interest between the agent and the principal in a firm. The agency theory explains the relationship in order to recommend the appropriate incentive for both parties to behave in the desired manner. Agency school of thought believes that privatization stimulates the design of new control system by management which includes accounting systems (Macias, 2002). Furthermore, privately owned firms are presumed to be governed by business goals and capital market acts as a deterrent to managerial and non-profit behaviors (Ott & Hartly, 1991). Competition generated by private ownership is essential in achieving a locative efficiency, as during this process important information is obtained which is required for efficient use as firm's input (Adam *et al.*, 1992). When the level of competition is low, it will be difficult to detect signals on the basis of which to determine a proper input-output balance. In fact, due to managerial inefficiency or low level of demand, profits may decrease.

The agency school of thought claims that a locative efficiency of the public enterprises is poor because the workers, the managers and the politicians are motivated by goals that do not correspond with the interest of the company. They also argue that adequate allocation of resources will be stimulated by measures such as the promotion of private sector, market pricing, the removal of import restrictions and quotas, and the curtailment

of government activities by closing state enterprises and contracting out government functions to the private sector (Ade *et al.*, 2009). The view is that private rather than public ownership will produce more efficient enterprises, beneficial to customers, the industry and the nation as a whole (Adam *et al.*, 1992). In line with these theoretical underpinning, empirical evidence are currently being sought as to the ability of the Neo-liberal economic reform in transforming the SOEs to a more profit-like and more efficient manner.

3.4 Microeconomic of Privatization

There is a vast literature in microeconomics addressing why firm ownership matters. The concern is on the way in which the decision making process of the firm is distorted when the government intervenes. The distortion can be analyzed by looking at the firms' objectives and the constraints, and how these are affected under different types of ownership structures (Shenshinski & Calva, 2000). Furthermore, within the literature of microeconomics, it has been theoretically established that under perfect competition the absence of information and complete contracts, ownership matter, i.e. the same performance of the firm can be observed regardless of their ownership structure.

The arguments in favor of state ownership were justified as a solution to the market failure argument. This is because under non-competitive market conditions characterized by decreasing average costs the existence of more than one firm is not justified on efficiency grounds. Also, the possibility of exploitation of monopoly power by private firm owners created the need for public ownership in natural monopoly sectors (Shleifer,

1998). The market failure argument and the social marginal costs have been called the social view. On the other hand, the formal analysis of incomplete contract, information problems and the role of incentives in promoting efficiency within the firm has shown that efficiency losses in public ownership are non-negligible (Shenshinski & Calva, 2000).

In many cases, the efficiency losses are higher than the gains that can be obtained by solving a market failure problem. This is particularly so as the scope of competition becomes larger and the size of the market increases, the economy is open to international trade, and technology develops. In this way the weakening of the market failure argument and the evidence in favor of the relevance of information asymmetries and market incompleteness gave rise to a re-thinking of the earlier views in favor of state ownership (Shenshinski & Calva, 2000). In relatively competitive markets, the advantages of state ownership were put in doubt.

However, in non-competitive sectors, the natural monopoly argument cannot be abandoned as a justification for state ownership without solving one important policy question; that is the question of how to deal with the possibility of exploitation of market power by private owners. In this regard, the metamorphoses of the theoretical work on regulatory mechanisms and their properties as second-best solution to the market power exploitation by private owners' have showed that there was an alternative to public ownership. It was also shown that, under certain conditions, the solution was more efficient. In this way, according to (Shenshinski & Calva, 2000) the question may be

translated into how to impose efficient regulatory constraint on the decision-making process of the private firms without deterring innovation and cost-reducing effort.

In the privatization process; market structure, competition and regulation frameworks clearly matters. In a competitive market structure, competition is important depending on the sequencing of reforms, and proper framework. In non-competitive sectors, such as infrastructural monopolies like water distribution or power distribution, enterprise privatization tantamount to privatizing the sector in which it operates. Adequate regulation is therefore crucial for the proper functioning of the sector. According to Guislain (1997), competition and regulation should be dealt with before final decision is taken on the ownership question. The main argument here is that privatizing first and regulating later does not constitute a first-best option from an economic standpoint, privatizing first and regulating later tends to strengthen vested interests, complicates subsequent regulations, leads to regulation capture and may seriously curb effective competition (Guislain, 1997).

In the telecom sector for instance, empirical research such as Fink *et al.* (2000) and Wallsten (2002) indicated that competition gains are higher in countries where regulation has been addressed prior to the introduction of competition. Shirley *et al.* (2002) also emphasised on the advantages of setting up the regulators beforehand.

With widespread private participation in public utilities and infrastructures across SSA available evidence showed that in 1990s, neither the regulatory framework nor the competition framework was developed as an integral part of the reform but in the second

half of the 1990s, when large utilities were privatized in some countries, although regulatory frameworks were put in place, enforcement problems have limited the effectiveness of both regulation and competition in several countries (Buchs, 2003).

In this regard, the conclusion by Campbell *et al.* (1998) indicated that the issues of competition and regulation have come almost as a painful afterthought. In most countries, privatization was pushed ahead before a sound regulatory framework was in place, which both prejudiced the process of privatization itself and laid it open to the charge of creating private monopolies which would exploit the consumer. The same argument holds for competition, as it turns out that there are no anti-trust legislation in most African countries, which favor cartel arrangements and abuse of economic position. In Ghana for instance, it appears that the privatization program focused on economic considerations but paid little attention to establishing credible regulatory institutions (Appiah-Kupi, 2001).

Apart from a free trade policy, the government had no policy on either competition or regulation and the guidelines on privatization failed to address the issue of regulating private sector commercial activities and pricing decisions of privatized firms. It was only after a public outcry following substantial price hikes by former public utilities in 1998 that the Public Utilities Commission was formally constituted (Appiah-Kupi, 2001). This has naturally driven many enterprises to securing their monopoly power.

But the issue of regulatory is more serious in scope as it highlights the institutional deficiencies and limitations prevailing in most African countries with regard to the creation of credible regulatory agencies and the enforcement of contracts and the rule of

law in general. Indeed, recent experiences with utility privatization in SSA show that more attention has been paid to regulation and competition frameworks, but implementation remains a very serious problem in most cases. To conclude, it is fairly obvious that effective competition and regulation remain the most daunting challenge in all countries of SSA, with the exception of South Africa. It is not a new problem; it is a persistent one which deserves more attention at the policy making level, as it has implications on many post-privatization aspects, including that of the social outcome of privatization.

3.5 The Concept of Firm Performance

To perform is to take a complex series of actions that integrate skills and knowledge to produce a valuable result. Although performance may appear to be an easy concept, there is no unique definition of the concept in the literature. Moreover, Langfield-smith (1997) believed that scholars mostly use special definitions tailored to fit the individual research purposes. According to Kihn (2010) and Govindarajan and Fisher (1990), one of the ways to categorize performance is to distinguish the outcome of the firm activities and the means by which these outcomes are reached. Similarly, in the opinion of Ittner (2008) another way to characterize performance is to distinguish between financial and non-financial performance.

According to Bransford *et al.* (2000), a performer can be an individual, a firm, a group of people or firms engaging in a collaborative effort. They further stated that developing performance may take a form of journey and level of performance location in the

journey. Current level of performance depends on some important components which include personal factors, level of knowledge, and levels of skills. For effective performance improvements some principles are proposed. The principles involve the mindset of a performer, engagement in an enriching environment, and immersion in reflective practice. Caine *et al.* (2005) believed that performance takes a form of a journey not a destination; the location in the journey is the level of performance. Therefore, every location characterizes the effectiveness or quality of a performance.

The performance of a system depends on its components and on the interactions between these components. In this regard, Tomlinson *et al.* (2002) said that performer's mindset includes actions that engage positive emotions for instance setting demanding goals and providing environment in which the performer get an appropriate degree of safety. They argued further that immersion in intellectual environment, physical and social can elevate performance and stimulate personal as well as professional development.

Other elements include social interactions, active learning, disciplinary knowledge, emotions and spiritual alignment. Reflective practice involves actions that help pay attention to and learn from experiences, for instance observing the present level of performance, analyzing and developing identity, noting accomplishments, analyzing strengths and areas for improvements. Finally, Tomlinson *et al.* (2002) believed that the conditions for optimal performance and improvements in performance can be synthesized into engage the performer in an optimal emotional state, immerse the performer in an enriching environment and engage the performer in reflective practice.

3.6 Measurement of Firm Performance

The classical approach to performance measurement has been discussed by (Sink, 1985; Sink & Tuttle, 1989). They claimed that the performance of a firm is a complex interrelationship between the several performance criteria namely effectiveness which involves doing things at the right time, with the right quality of material and personnel.

A firm could measure its performance using the financial and non-financial indicators. The financial performance indicators include profit and turnover while the non-financial focus on issues pertaining to delivery time, customers' satisfaction and employees' turnover. The financial performance is often measured using accounting ratios such as return on asset (ROA), return on sales (ROS), return on equity (ROE) and sales growth (Fraquelli & Vannoni, 2000; Crabtree & DeBusk, 2008; Ittner & Larcker, 1997). These ratios for measuring the performance, according to Chenhall and Langfield-Smith (2007) have the advantages of being generally available, since every profit oriented firm produces these figures for the yearly financial reporting.

Similarly, in the opinion of Hyvönen (2007) the non-financial performance can be measured using market share, innovation, customer satisfaction. Tangen (2003) Evans (2004) and Henri (2006) provide an overview of performance measures which include self reported measures to operationalized performance. Others in opinion of Cadez and Guilding (2008) combine both self reported measures and the accounting financial ratios in their reports. Langfield-Smith (1997) writes that although non-financial performance

can be used as a measured; however the performance can be hardly assessed without the link to financial ratios.

A number of frameworks exist to evaluate how performance be measured. The frameworks are the system resource approach, goal approach, stakeholder approach and competitive value approach. According to Yuchtman and Seashore (2007), goal approach measures the extent a firm attains its goals while the resource system approach assesses the ability of firm to obtaining its resources. The goals and the system resource approaches measure the extent to which firm achieves its goals and accesses to the resources. In a similar way, Daft (2005) said that the stakeholder approach and the competitive value approach evaluate performance of firm based on its ability to meet the needs and expectations of the external stakeholders including the customers, suppliers, competitors.

Depending on the duration of a plan, performance can be measured based on the long-term measures or short term measures. The short-term measures, normally based on the financial returns evaluating plan that will complete within twelve calendar months while the long-term measures are useful for plans that may take more than twelve months. The short-term financial measures reflecting firm's current state of performance may not necessarily serve as a useful guide or prediction for the firm's long-term survival (Birley & Westhead, 2004).

Phillips (1999) is of the opinion that profitability in the short run is an important factor in the firm's ability to achieve its long term goals such as increased market share, brand

names and reputations. Low profitability for a specific period may not necessarily reflect deficiency of a firm due to large investments are being channeled into long term projects that may lead to future growth or for meeting the internal or external requirements.

This means that while the goal approach emphasizes on achieving the predetermined targets, it is necessary for firms to consider the time frame of completing the process (Haber & Reichel, 2005). In fact, time is a crucial factor that could affect survival and extent of receiving the continuing supports from the external stakeholders. In this respect, performance should be measured based on a holistic approach. McDougall and Oviatt (1996) report that an increase in sales volume is due to the past efforts and performance, customers' satisfactions and continuing referrals by the existing customers.

Traditionally, the success of a firm has been evaluated by the use of financial measures. Although financial measures can appear in several different forms, three of the most common are: profit margins or ROS measure how much a company earns relative to its sales. According to Kihn (1993), these measures determine the company's ability to withstand competition, falling prices, adverse rising costs, or declining sales in the future. Zairi (1994) believed that ROA, a measure developed by Dupont in 1919, is one of the most widely used financial models for performance measurements. He further explained that ROA determines the company's ability to utilize its assets. However, it should be noted that ROA does not tell how well a company is performing for the stockholders. Furthermore, ROE measures how well the company is doing for the investor (i.e. stockholders), since it tells how much income the investors are getting for their investments.

3.7 The Theory of Firm Performance

The theory of performance was developed to form a framework that can be used in explaining performance as well as performance improvements. For instance, the resource based theory is used to form the basis for competitive advantage of a firm. According to Penrose (1959), Mwailu and Mercer (1983), Rumelt (1984) and Wernerfelt (1984), the theory focused on the application of resources at the firm's disposal.

A firm performance theory that favors privatization is characterized by a moving away from the monopoly argument to contracting and incentive problems within the firm as the relevant issues that foster microeconomic efficiency. This philosophy is the main building block of managerial theory (Shenshinski & Calva, 2000). Within the managerial theory, there are causes of the existence of poor incentives for efficiency in the public sector. The managerial perspective, according to Vickers and Yarrow (1989) is of the view that monitoring is poorer in SOEs and therefore the incentives for efficiency are very low powered.

According to the managerial perspective, the imperfect monitoring is the main cause of low powered incentives in SOEs. The proponent of this theory believed that the reason why managers of SOEs are poorly monitored has to do with the fact that the firms are not traded in the capital market, as is the case of private firm. This reason eliminates the threat of take-over when the firm performs poorly. In addition to poor monitoring, according to Yarrow (1986) and Vickers and Yarrow (1989), shareholders cannot observe and influence the performance of the enterprises. Capital markets therefore,

cannot play the role of disciplining the managers of SOEs' because their debt is actually public debt that is perceived and traded under different conditions. Shleifer and Vishny (1996) have argued that partial privatization can solve this problem.

Shapiro and Willig (1990) used the distortions in the objectives of SOEs to show the benefits of private ownership. Likewise, Schmidt (1990) eliminates the postulation of government intervention and shows the costs and benefits involved in privatization. According to Schmidt, the fact that bankruptcy is not credible threat under public ownership makes the managers of SOEs relax to increase the scale of production, whereas a private manager would face bankruptcy threat and the threat of failure that induces productive efficiency.

In a similar way, the political perspective claims that political interference is what distorts the objectives and imposed the constraints faced by SOEs' managers (Shapiro & Willig, 1990; Shleifer & Vishny, 1994). The political perspective argues that distortions in the objective function of SOEs which managers seek to maximize and the constraints face via soft budget problem result in very lower efficiency under public ownership (Shapiro & Willig, 1990; Kornai, 1980). SOEs managers, who report to politicians and pursue political careers, incorporate to the objective aspects related to maximization of employment at the cost of efficiency and political prestige.

The reason why SOEs managers are able to incorporate maximization of employment at the cost of efficiency without facing the threat of bankruptcy relates to the distortion of the soft budget constraint. In a situation where firms have engaged in unwise

investments, it will be in the interest of the central government to bail the firm out using the public budget. The rationale for this action lies on the fact that the bankruptcy of the firm would have a high political cost, whose blame would be distributed within a well-defined political group. On the other hand, the cost of the bailout can be spread over the taxpayers, a larger group and less organized in the society with diversified interests and preferences (Shenshinski & Calva, 2000). The threat of bankruptcy is not credible under public ownership. The assumption is that the political loss involved in closing a publicly owned company is larger than the political cost of using taxpayer money to bail it out.

3.8 Empirical Review of Enterprise Performance

Assessing post-privatization performance of privatized enterprise is a very challenging task, both methodologically and statistically. The assessment is usually done either by comparing pre privatization and post privatization enterprise performances, or by working out a counterfactual scenario under a set of assumptions that is what would have happened in absence of privatization.

In fact, there are very few studies dealing with SSA in this regard, for the reason of accessibility to enterprises financial data. According to Campbell *et al.* (1998), the issue becomes more difficult due to the fact that even when firms are willing to disclose information on post-privatization performance, they are often unable to provide pre-privatization data for comparison. Available studies such as Bennel (1997), Campbell-White and Bhatia (1998) and Paulson (1999) rely mostly on anecdotal evidences to

report some results but no attempt has been made to date to measure financial and operating performance of privatized firms in Africa.

Although Boubakri and Cosset (1999) carried out a first analysis of privatized firms' performance in Africa, but their sample is limited to 16 enterprises spread out between Ghana, Morocco, Nigeria, Senegal and Tunisia. The Boubakri and Cosset's result suggest a weak improvement in the profitability of newly privatized firms, and indicate that efficiency as well as output measured by real sales decreased slightly, while capital expenditure rose significantly in the post-privatization period. The limited of the sample size, as well as the over-representation of firms from Morocco and Tunisia (65 percent of the sample) makes it impossible to draw any firm conclusion from such results for SSA countries.

Similarly, World Bank (1995) conducted a study in Sénégal and concluded that the collective performance of privatized firms deteriorated after privatization in terms of net operating surplus and profits before taxes, real variable costs and total factor productivity. Also water and electricity companies have not yielded the expected results after privatization in terms of performance, access and prices. Likewise in some other countries, according to Buchs (2003), evidence about post-privatization performance is patchier, for instance anecdotal evidence in Cameroon reveals significant problems with electricity supply since privatization, but no detailed study exists to date.

But Cote d'Ivoires' impact study carried out on 81 privatized enterprises by Jones *et al.* (1999), covering range of firms already operating in competitive markets particularly in

agriculture, agro-industries, tradable and non-tradable sectors; the authors concluded that firms performed better after privatization and that these firms performed better than they would have remained under public ownership. The study also discovered that the whole set of transactions have contributed positively to economic welfare, with annual net welfare benefits equivalent to about 25 percent of pre-divestiture sales. This result stemmed from a number of effects, including increases in output, investment, labor productivity, and intermediate-input productivity.

Another impact study of 91 Mozambique firms across the country conducted by Biggs *et al.* (1999) found that following privatization most of the enterprises in the sample could be characterized as showing an overall improvement in their performance based on increases in sales, production levels, number of employees and salaries paid. The authors further asserted that in another study covering 152 firms in the manufacturing sector between 1992 and 1998 found similar results in terms of labor productivity, investment and sales growth, although new entrants performed better than privatized firms in terms of sales growth, job creation and contribution to investment. One of the major failures of the program is certainly that of the privatization of Banco Commercial de Moçambique in 1996, which was completed despite major concerns about the only bidder, a Portuguese consortium. Soon after, the bank was in trouble because of fraud, large loans disbursement to connected parties officials and problems with the pre-privatization portfolio resulting from poor regulations and supervision.

A study in Tanzania by an independent auditing firm for the public sector reform commission in 1998 compared indicators before and after privatization. The study found

that on average, companies showed an increase in productivity and investment after being privatized, international monetary fund (IMF, 2003). According to Due *et al.* (2000), a study covering 18 newly privatized firms in various manufacturing, services and industrial sectors of the same country revealed mixed profit performance in the first years following privatization.

In Ghana, studies conducted by Appiah-Kupi (2001) and Opoko (1999) have shown a general growth in the privatized companies, particularly those in services, manufacturing and the mining sectors. According to them, in the mining sector for instance, the profit ratio to sales increased by 950 percent. A further survey of 47 newly privatized firms in 1999 showed that privatization increase the volume of investment in the privatized companies through the introduction of new equipment and major rehabilitation of production plants which would not otherwise have taken place.

Pooled data from 32 firms show that the financial performance of private firms both in terms of return on assets and return on sales was stronger than in SOEs although other factors also played a role in explaining financial performance (Bavon, 1998). Among the flagship cases is the privatization of Ashanti Goldfields Company (AGC), which was able to tap into international capital markets to fund investment in new equipment and technology resulting from privatization. As a result, gold production rose substantially while production costs declined over time. In the opinion of Buchs (2003) other sectors such as the oil sector, have been much more difficult to deal with, but the most striking failure of the program is the privatization of Ghana Telecom (GT) in 1997, sold to Malaysia Telekom.

Although GT's financial performance has improved since its privatization, the company failed to meet cumulative network deployment targets, overall quality of service has remained low, with Ghana remaining one of the few African markets with more fixed than mobile users. This failure was due to disorganized market framework that led to the licensing of multiple operators using various technology standards, confusing Telecom sector policy, and ineffectual regulatory.

Uganda firm surveys indicated that privatization has led to increased industrial capacity utilization and profitability, Capacity utilization of privatized firms have increased by 11 percent according to Sapri (2001) with more growth recorded in the beverage industries. His report also indicate that privatization has led to increased supply of quality goods and services to the market, especially essential commodities (sugar, salt, soap), which prior to privatization were in short supply. The most successful among the cases of privatization Uganda is the opening up of the Telecommunication sector in 1998 when a second network license was won by Mobile Telephone Networks of South Africa (MTN). The other side of the story is the case of the Uganda Commercial Bank in 1997, which had to be placed under government management again two years after its privatization owing to a huge governance scandal

In other countries, for instance Narjess Boubakr *et al.* (2004) examined the post-privatization performance of newly privatized firms in Asia. They discovered that privatization leads to increase in output, profitability, and efficiency in former SOEs from Asia. Employment increases but insignificantly. Compared to the related literature on the effects of privatization in developing countries, the results from this study

indicate that performance improvements in Asia where most firms are partially privatized are less significant than those documented in other studies.

The findings of Narjess Boubakr *et al.* (2004) study revealed that higher improvements are associated with certain aspects of corporate governance and the economic environment. For instance, the lower political risk, friendly institutional environment, more developed stock markets and involvement of foreign investors, are important determinants of performance improvements after privatization, finally, the study indicated that governments generally does not relinquish control far less than what is observed elsewhere in developing countries.

Martin and Parker (1997) study the impact of privatization on 11 major firms privatized in the U.K. using many performance indicators that include profitability measured as return on capital employed, efficiency annual growth in value added per employee and technical efficiency data envelopment analysis DEA. The evidence indicates that privatization had mixed results. While most of the enterprises record increased productivity growth after privatization, the result is disappointing in some of the cases. The same is true for other performance measures. According to the authors, the rationale for the use of several performance indicators is the need to overcome measurement bias.

Similarly, Eckel *et al.* (1997) examined the effect of privatization on the British Airways stock prices of competitors and on fares charged in those routes where British Airways competes directly with foreign airlines. The authors discovered that price of stock of USA competitors fall on average by seven percent points, indicating that stock traders

anticipated a much more competitive British Airways upon privatization. Also, airfares on routes served by British Airways fall by 14.3 percent relative to those on other transatlantic routes around the time of privatization. As a check on the results, Eckel *et al.* (1997) also appraised market reactions to Air Canada's two-phase privatization first from 100 percent state ownership to 57 percent, then to zero percent state ownership. Air Canada's fares do not decline after the first privatization, but fall a significant 13.7 percent after complete divestiture. Unlike British Airways, however, there is no significant competitor stock price effect since Air Canada does not compete with other carriers in many routes.

Ramamurti (1997) in a very comprehensive descriptive study appraised the impact of the 1990 restructuring and privatization of Ferrocarrilla Argentinos, the Argentine railroad, and then the largest in Latin America. The author documents a 370 percent improvement in labour productivity, decline in operating subsidies to almost zero and a massive decline in employment from 92,000 to 18,682 workers or 78.7 percent. Consumers also benefit from expanded and better quality services delivered at lower costs. Freight rate declines by 20 percent in real terms over 1991 to 1994 as a concessionaire competes more aggressively with trucks.

In a similar work, Claessens and Djankov (1999) examined firm ownership concentration and corporate performance in a cross section of 706 Czech firms privatized through voucher over the period 1992 through 1997. The authors find that profitability and productivity changes are positively related to ownership concentration. The 10 percent increase in concentration leads to a two percent increase in labour

productivity and a three percent increase in profitability. However, the results are weakly robust to alternative econometric and data specifications. A major weakness of this study is its failure to address the precise mechanism through which ownership concentration affects performance.

Anderson *et al.* (2000) examined the effect of competition and ownership on the performance of 211 newly privatized firms in Mongolia. The authors discovered that the effects of competition on efficiency to be considerable. Furthermore, enterprises with residual state ownership perform better than those with other owners. This unusual result is attributable to underdeveloped institutions. While government involvement in corporate governance is vivid, non-government official's diverse outsider owners require institutional support to be able to exert their influence, and the support is not available.

Jerome (2002) appraised the qualitative and quantitative evidence relating to a locative and productive efficiency in the telecommunication sector in the wake of commercialization and deregulation in 1992. It was found that the reforms undertaken resulted in increased profitability of the company, network expansion, and modernization and productivity gains. Asante (1998) reviewed the performance of privatized Ashanti Goldfields Company Limited, which was then Africa's largest privatized enterprise, and Ghana Commercial Bank using several accounting ratios. Most of the performance indicators increased after privatization, although some were statistically non-significant. In the same way, Oyieke (2002) used Kenya Airways as a case study to examine the effects of privatization on public sector borrowing

requirements. The study documents substantial improvements in the public sector and the net worth of Kenya Airways as a result of privatization.

3.9 Empirical Firm Performance Study of Multi-Country

The multi-country studies utilize large samples of firms that have been privatized through public offers. The multi-country type of study examine whether the mean and median of firms improve financial and operating performance after privatization. The most popular published study in this regard is by Megginson *et al.* (1994). Since then, many studies have used Megginson *et al.* methodology in various settings. The methodology has become the standard methodology of choice for several privatization studies. The methodology has two key advantages. First, it is the only study that examines and directly compares large samples of economically significant firms, from different industrial area, privatized in different countries, over different time periods. Each firm is compared with itself using a fairly simple, inflation-adjusted sales and income data which produce results in simple percentages, this methodology allows one to conveniently and efficiently aggregate multi-national, multi-industry results. Secondly, while focusing on initial privatizations (IPOs) or share issue privatization (SIPs) which avoid yields a selection bias, it also provides samples that encompass the largest and most politically influential privatizations. According to Megginson *et al.* (1994), SIPs account for more than two-thirds of the over USD1 trillion of total revenues rose by governments since 1977.

Meggison *et al.* (1994) examined pre-versus post-privatization financial and operating performance of 61 companies from 18 countries (six developing and 12 industrialized) and 32 industries that are fully or partially privatized through public share offerings during the period 1961 to 1990. The authors presented strong evidence that as a result of privatization, the sampled firms become more profitable and efficient and also increase real sales and capital expenditures. Furthermore, the sampled companies significantly lower their debt and increase dividend payments. In addition, Meggison *et al.* (1994) have not found evidence that employment decline after privatization. Instead, the study finds an increase in employment for a significant 64 percent of the sampled companies.

While the study overcomes the difficulty of obtaining comparable pre- and post-privatization data for large, multinational, multi-industry of the sampled countries, it is unfortunately limited mostly to Organization for Economic Cooperation and Development (OECD) and other developed countries. Since most of the cases reviewed came from industrialized countries or settings, and since the IPO method is usually applied to high quality candidates, the positive findings might not be applied in non-industrialized third World countries, or to the firms privatized by methods other than share issuing.

The study by Galal *et al.* (1994) is the most comprehensive and influential analysis of the impact of privatization on firm performance efficiency and government budget. The study examines the overall consequences of privatizing 12 large firms mostly in regulated sectors of Chile, Malaysia, Mexico and the U.K. The selected enterprises were

in telecommunications (three firms), airlines (four firms) electricity (two firms), a transport company, a port and a lottery company.

The authors compare the post-privatization performance of the enterprises with the predicted performance of these enterprises had they not been privatized. Therefore, for each enterprise, a counterfactual scenario is identified and the difference between the level of welfare under private and that under the counterfactual scenario is attributed to privatization. The welfare implications are measured in terms of the impact of divestiture on major economic players: the government, competitors, buyers of firms and consumers. The study documents net welfare gains in 11 of the 12 cases, which equal on average 26 percent of the firms' pre-privatization sales. The authors find no case where workers are made significantly worse off and three cases where workers actually benefit.

Informative as this study is, in the opinion of Jerome (2008) the study is deficient on several grounds. Firstly, it omits countries typical of Africa that are distinguished by low per capita income, distorted markets and relatively weak institutional capabilities. Secondly, despite the scope and the methodology employed, the underlying assumptions are very tenuous and do not relate to the environmental realities, thus becoming incompatible with the policy-oriented nature of the study.

Wei *et al.* (2003) examined the pre- and post-privatization operating and financial performance of 208 firms privatized in China in the period 1990 to 1997. The results show significant improvements in sales efficiency, output and declines in leverage following privatization, but no profitability change. Firms in which 50 percent voting

control is giving to private investors through privatization experience significantly improvements in employment, profitability and sales efficiency compared to those that remain under the state's control. The authors conclude that, privatization works in China, particularly when control is passed to private investors.

In the study of partial privatization and firm performance in India, Gupta (2004) used data from Indian SOEs; the author discovered that partial privatization has a positive impact on investment spending, profitability and labor productivity. The author found no evidence that firms are chosen for privatization on the basis of bad performance in the previous year. The authors' analysis confirms the argument that the most profitable enterprises are usually the first to be privatized as with the case in Indian oil and gas companies. The study also documents that privatization and competition are not substitutes in their impacts on firm performance, hence the results supports the hypothesis that partial privatization takes care of managerial rather than the political view of inefficiency in SOEs.

An empirical study carried out by LaPorta and Lopez-de-Silanes (1999) test the performance of 218 Mexican SOEs privatized in 1992. The authors compare profitability, employment and efficiency levels of the privatized firms and discovered that SOEs rapidly closed the yawning performance gap. Output increases by 54.3 percent, sales per employee double, and privatized firms reduced blue- and white-collar employment by half.

From the review of the literature, the paucity of the post- privatization performance assessment of privatized SOEs in Nigeria is very glaring. Although, studies has been carried out on the effects of privatization on privatized SOEs performance in different parts of the world, there is no such research reported in the published literature providing empirical evidence about the effects of privatization on the privatized SOEs in Nigeria. Even the published privatization studies from the diffent parts of the world on the privatized SOEs performance are far from being conclusive. These evidences from the empirical review provided gap for this research.

In fact it is evident from the empirical review that there in paulsity of rigorous impirical performance assessments of privatized SOEs in Nigeria. The findings of Boubakri and Cosset (1999) who conducted performance analysis of privatized firms in Africa can not be depend upon due reseasons ranging from limited of the sample size, as well as the over-representation of firms from Morocco and Tunisia. The study used a sample of 16 SOEs spread out between Ghana, Morocco, Nigeria, Senegal and Tunisia.

Likewise the study of Jerome (2008) had the problem of limited sample size, as well as sampling bias. He used only three privatized SOEs as a sample, a company each from banking sector, petroleum marketing and manufacturing sector. Meanwhile, Magaji and Hassan (2012) uses only one company as sample. These problems make it impossible to draw any firm conclusion from such research results.

Apart from the lack of dependable empirical performance assessment of privatized SOEs in Nigeria, it is important to note that Nigerian SOEs has a peaculiar case which makes it

different from the case of SOEs elsewhere. The SOEs in Nigeria have every financial, human and market that can make any type of business to succeed and prosper but the case is different in Nigeria. This paradox draws the attention of public as well as government. For instance in term of finance El-Rufai (2001) and Danjuma (2005) said that Nigerian government spent USD100 billion to establish SOEs between 1975 and 1995. Again it has been estimated according to Jerome (2008) that total investment in the public enterprise sector exceeded USD35 billion. Similarly, Callaghy and Wilson (1988) estimate net outflows from the government to the public enterprise sector as USD2 billion annually but El-Rufai (2001) and Danjuma (2005) in particular lamented the transfer of USD3 billion, USD0.8 billion, USD1.4 billion, and USD44 billion in 1998, 1999, 2000, and 2001 to SOEs, respectively. Furthermore, about 40 percent of non-salary recurrent expenditure and 30 percent of capital expenditure was expended annually on these enterprises (Jerome, 2005). Yet in a separate development a committee on cross debt determination set up by the Bureau of Public Enterprises (BPE) in 2002 reported that the total outstanding debt of the SOEs amounted to ₦1.18 trillion.

In the area of human resource, Nigeria is the most populous country in Africa with an estimate of 146.7 million, according to 2006 population census, the seventh most populous country in the world. Demographically Nigeria's age distribution recently was estimated to be 0 – 14 years, 43 percent; 15 – 54 years, 55 percent; and 65 years and above, 1.2 percent. The country had a labour force of 83 million. According to available information from Ministry of labour and productivity, labour force employment by sector was as: 70 percent in agriculture, 20 percent in service, and 10 percent in industry.

The size of Nigeria market is so enormous, in fact according Jerome (2008) Nigeria have an emerging market, with expanding financial, service, communications, and entertainment sectors which the SOEs in the country is expected to capitalized on. It is the largest economy in the West African Region and it is ranked 30th in the world in terms of GDP as at 2011. The country has five major geographic regions which include low coastal zone along the Gulf of Guinea; hills and low plateaus north of the coastal zone; the Niger–Benue river valley; a broad stepped plateau stretching to the northern and a mountainous zone along the eastern border.

In term of transport infrastructure, Nigeria has roughly 113,000 kilometers of surfaced roads network and new road construction are gradually being implemented on continual bases. The country's major sea ports are at Lagos (Apapa and Tin Can Island), Port Harcourt and Calabar which have 8,600 kilometers of inland waterways. As at 2006, Nigeria's rail system consisted of 3,505 kilometers of gauge track. Four of Nigerian the international airports are Lagos, Kano, Port Harcourt and Abuja. With all these resources and infrastructural facilities, unfortunately the enterprises deliver intermittent services which lead to poor returns on investments and in a number of cases the SOEs recorded negative profit. In the opinion of El-Rufai (2001) no government business in Nigeria makes true profit and none ever made real profit.

The abundance of human and material resources on the one hand and the non-performance of SOEs in Nigeria on the other hand, make it a paradox and differentiate it

with the situations elsewhere. The paradoxical nature of the situation in Nigeria differentiates it with rest of studies carried out elsewhere.

3.10 Conclusion

In conclusion, it is evident that government established SOEs for development, along with other purposes. Privatization, on the other hand, is an economic policy that intends to change the structure of SOEs ownership. The theories that justify privatization as a policy include the property right theory and the agency theory among others. The empirical review of privatization studies revealed inconsistent performance results of the privatized SOEs. For instance, the World Bank (1995) study in Senegal concluded that the performance of privatized SOEs deteriorated after privatization. Similarly, Boubakri and Cosset (1999) study results of privatized SOEs performance revealed no improvement after implementing privatization policy on the sampled SOEs used in his study. On the other hand, Megginson *et al.* (1994) and Ramamurti (1997) studies of privatized SOEs performance presented empirical evidence that privatization leads to more profitability and efficiency of the privatized SOEs. Some of the studies on the performance of privatized SOEs documented mixed findings. For instance, Martin and Parker (1997) results documented mixed findings, ie while some the SOEs in his sample recorded very weak increase in productive growth, the result is disappointing in most of the sampled SOEs. Therefore, the empirical evidence on the privatized SOEs performance drawn from the published literature is mixed and far from been conclusive.

CHAPTER FOUR

METHODOLOGY

4.0 Introduction

In this chapter, the conceptual framework, models specifications are presented. The sources of data and methods of analysis are discussed. Two main methods, mean comparison and panel data analysis are used to evaluate the performance of Nigeria's privatized firm. To address the research question (i) and the research objective (i) the mean comparison method of analysis is used. The panel data method of analysis is used to addressed research question (ii) and (iii) as well as research objectives (ii) and (iii). In particular, panel data analysis captures the variation over time of the performance indicators and control individuals firm specific heterogeneity as well as the changes in their operating environment.

4.1 Conceptual Framework

Conceptual framework, according to Sekaran (2003) creates image of the relationship between the prevailing issues or factors. He further said that conceptual framework visualizes theory that linked the relationship between identified factors. It is the purpose of conceptual framework in this study hielighting the impact of privatization on the privatized SOEs performance. The framework of this research has been developed based on the important theories related to privatization of SOEs, namely neo-classical

economic theory, the property right theory, principal-agent theory, the public choice theory and firm performance theory.

These theories favour the competitive profit motive by emancipating free market pricing from state interfering. The theories argue that the character of the traders' i.e. private entrepreneurs and that of government are inconsistent. Government in the administration of SOEs is negligent and wasteful, public employees have no direct interest in the outcome of their actions. Privatization, according to these theories, would reap the advantages of the market system, competition, effectiveness, productivity, and efficient service. This trend will also strengthen market forces especially if combined with the deregulation, economic liberalization, relaxation of wage and price controls.

In summary these theories (neoclassical economic theory, property rights, principal-agent, public choice and the firm performance theory) emphasize that the performance of SOEs are inferior in contrast to private firms' performance for many reasons. The most important among the reasons include monitoring devices, firms' objectives, incentives and market structure. Accordant to these theories privatization will lead to competition; ensure good monitoring and incentive devices, which may contribute in improving the privatized firms' performance.

It is expected that as firms move from public ownership to private ownership, their profitability should increase. Given that shareholders wish the firm to maximize profit, newly privatized firms' managers should place greater emphasis on profit goals as transfers both control rights and cash flow rights to the managers who shows a greater

interest for profits and efficiency relative to pleasing the government with higher output or employment. The general firm efficiency performance in terms of resource utilization, employee output performance, sales turnover and profit maximization are measured using financial ratios. Therefore $FP = f(A, S, E, P, G)$ where FP represent firm performance, A refers to return on asset, S stands for return on sales, E depicts return on equity, P denotes profit margin, G represents sales growth and f is a function establishing relationship among the variables. A firm is efficiently performing if $A > 0$, $S > 0$, $E > 0$, $P > 0$ and $G > 0$. In a perfectly efficiently performing firm the return on asset, return on sales, return on equity, profit margin and sales growth are expected to be positive and greater than zero.

That is profitability is a function of sales, capital, workers and ownership; algebraically: $Pr = f(sales, cap, wrk, own)$ where pr is profitability, f is a function; $sales$ represent firm sales under review, wrk represent workers and own depicts ownership. Profitability is expected to be positively related with sales ($sales > 0$), ($cap > 0$), ($wrk > 0$) and ($own > 0$). Efficiency of firm is also given as a function of $sales$, cap , wrk and own . $Eff = f(sl, cap, wrk, own)$ where Eff represents efficiency and all other variables remained as defined. $S > 0$ means that a sale is positively related with efficiency.

According to Fraquelli and Vannoni, (2000) and Crabtree and DeBusk (2008), the financial performance is measured using accounting ratios. These ratios for measuring the performance, according to Chenhall and Langfield-Smith (2007), have the advantage of being generally available, since every profit oriented firm produces these figures for the yearly financial reporting.

In this research improvement in profitability and efficiency are used to represent SOEs performance. Similarly, privatization is employed as a dummy variable. The independent variables are: ownership, capital, sales and workers; while the dummy variable is privatization. Figure 5.1 presents the conceptual framework of theories of privatization.

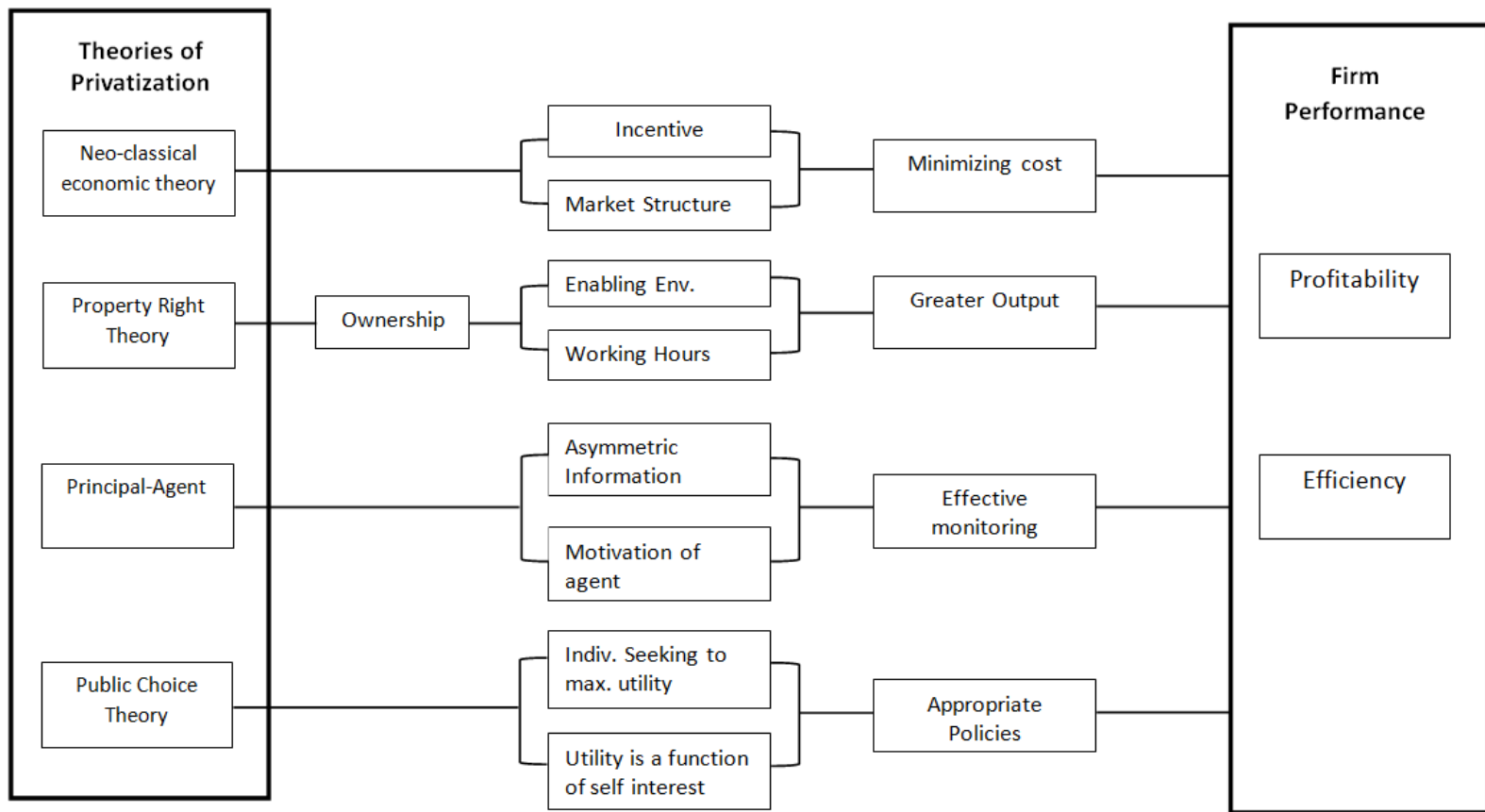


Figure 4.1
Conceptual Framework of Privatization Theories

4.2 MODEL SPECIFICATION

This study used profitability and efficiency models to analyze the performance of privatized SOEs in Nigeria. The variables in both the profitability and efficiency models are logged due to multi collinearity but *PR* cannot be logged because it is a dummy variable.

4.2.1 Profitability Models

Three profitability models are used to analyze the effect of selected variables on firm's profit. These models are shown in Equation [1] – Equation [3]. The variables gross profit margin (*GPM*), operating profit margin (*OPM*) and net profit margin (*NPM*) of firm have been employed as dependent variables. Meanwhile, independent variables are sales, capital, workers and ownership.

$$[1] \quad \text{Model 1:} \quad GPM_{it} = \beta_0 + \beta_1 SALES_{it} + \beta_2 CAP_{it} + \beta_3 PR + \beta_4 WKS_{it} + \beta_5 OWN2_{it} + \varepsilon_{it}$$

$$[2] \quad \text{Model 2:} \quad OPM_{it} = \beta_5 + \beta_6 SALES_{it} + \beta_7 CAP_{it} + \beta_8 PR + \beta_9 WKS_{it} + \beta_{10} OWN2_{it} + \varepsilon_{it}$$

$$[3] \quad \text{Model 3:} \quad NPM_{it} = \beta_{11} + \beta_{12} SALES_{it} + \beta_{13} CAP_{it} + \beta_{14} PR + \beta_{15} WKS_{it} + \beta_{16} OWN2_{it} + \varepsilon_{it}$$

where:

GPM_i	=	Gross Profit Margin of Firm i
$OPPM_i$	=	Operating Profit Margin of Firm i
NPM_i	=	Net Profit Margin of Firm i
$SALES_i$	=	Sales of Firm i
CAP_i	=	Capital of Firm i
PR_i	=	Privatization Dummy Variable of Firm i
WKS_i	=	Number of Workers of Firm i
$OWN2_i$	=	Ownership of Firm i
ε_{it}	=	Error Term of Firm i
β_i	=	Parameters; $i = 1, 2, \dots, 16$

4.2.2 Efficiency Models

Three efficiency models are used to analyze the effect of selected variables on firm's efficiency. These models are shown in Equation [4] – Equation [6]. The variables are sale efficiency (*SE*), net income efficiency (*NIE*) and average collection period (*ACP*). The independent variables are *SALES*, *CAP*, *WKS* and *OWN2*.

$$[4] \quad \text{Model 4:} \quad SE_{it} = \beta_{17} + \beta_{18}SALES_{it} + \beta_{19}CAP_{it} + \beta_{20}PR + \beta_{21}WKS_{it} + \beta_{22}OWN2_{it} + \varepsilon_{it}$$

$$[5] \quad \text{Model 5:} \quad NIE_{it} = \beta_{23} + \beta_{24}SALES_{it} + \beta_{25}CAP_{it} + \beta_{26}PR + \beta_{27}WKS_{it} + \beta_{28}OWN2_{it} + \varepsilon_{it}$$

$$[6] \quad \text{Model 6:} \quad ACP_{it} = \beta_{29} + \beta_{30}SALES_{it} + \beta_{31}CAP_{it} + \beta_{32}PR + \beta_{33}WKS_{it} + \beta_{34}OWN2_{it} + \varepsilon_{it}$$

where:

$SALES_i$	=	Sales of Firm i
CAP_i	=	Capital of Firm i
PR_i	=	Privatization Dummy Variable of Firm i
WKS_i	=	Number of Workers of Firm i
$OWN2_i$	=	Ownership of Firm i
SE_i	=	Sales Efficiency of Firm i
NIE_i	=	Net Income Efficiency of Firm i
ACP_i	=	Average Collection Period of Firm i
ε_{it}	=	Error Term of Firm i
β_i	=	Parameters; $i = 17, 18, \dots, 34$

The error terms (ε_{it}) are random unobserved component that reflects unobserved shocks. ε_{it} terms are assumed independent, with mean zero and constant variance (σ_ε^2) for all firms and in all time periods. The term β_0 refers to the intercept parameter that varies across firms and not over time. All behavioral differences between individual firms and over time are captured by the intercept. Individual intercepts are included to control for these firms specific differences.

4.3 Justification of Variables

The performance of firms is evaluated through the use of financial variables. The most used variables are profitability and operating efficiency which shows the amount a company earns relative to its sales as a result of its operations. According to Kihn (1993), these variables shows the company's ability to withstand competition, falling prices, adverse rising costs and declining sales in the future.

4.3.1 Profitability

A firm could measure its performance using the accounting financial indicators. The financial performance indicators include profit and turnover. According to Fraquelli and Vannoni (2000), Crabtree and DeBusk (2008) and Ittner and Larcker (1997) the financial performance of a firm is measured using accounting variables. These variables for measuring the performance, according to Chenhall and Langfield-Smith (2007), have the advantage of being generally available, since every profit oriented firm produces these figures for the yearly financial reporting. Profit is the difference between revenues and costs. The profit figures reported by firms are always based on this principle. The information on profit is useful for both internal and external purposes. The profit information is very important for managers, shareholders, government particularly for tax purpose and other external bodies. The profitability is represented by indicators such as gross profit margin (*GPM*), net profit margin (*NPM*), and operating profit margin (*OPM*).

GPM indicates the amount of profit from the sale of goods produced. In the opinion of Kihn (1993), it shows profit relative to sales after production cost, also it indicates relationship between production and selling price. A higher *GPM* is a sign of good management and indicate the company is doing well. The results of the previous studies such as Baily (1986), Magginson *et al.* (1994), Boubakari and Cosset (1998) and D'Souza and Magginson (1999), privatization leads to higher *GPM*. This research use *GPM* to measure the effect of privatization on the performance of privatized SOEs. Therefore, based on previou research findings, privatization has positive effects on privatized SOEs.

Likewise, *NPM* measures the firm's ability to turn sales in to profit. When the *NPM* is inadequate, according to Pandy (2007), the firm will fail to achieve satisfactory return on shareholders' fund. A favorable *NPM* ratio also indicates the firm's ability to withstand adverse economic conditions, hence the firm will be in an advantageous position to survive, in face of failing selling prices, rising costs of product and decling demand for the product. Similarly, a firm with high *NPM* can make use of the favorable economic conditions such as rising selling prices, failing cost of production and increase demand for the firms' product. Such a firm will accelerate its profits at faster rates. *NPM* is calculated when net earnings is divided by sales. In line with previous studies such as Jerome (2008) and Osman (2011), privatization result to higher *NPM* performance. Based on the above research findings, this study hypothesed that privatization has positive impact on *NPM* of the privatized SOEs.

Similarly, *OPM* measures the cost of goods sold as well as other operating expenses. *OPM* shows the firm's ability in generating sales from all financial resources committed. It is calculated by dividing earnigs before interest and taxes (EBIT) by sales revenue. Firm

ability to produce large volume of sales with a given amount of input is the most important aspect of its operating performance. Therefore, a firm should strive to manage production efficiently to maximize sales. This because, in the opinion of Pandey (2007), underutilized assets increase firms need for costly financing, expenses for maintenance and up keeping. Previous study results such as Nellis and Losers (2002); Magginnson *et al.* (1994), shows that privatization leads to better *OPM*. This research use *OPM* to measure the impact of privatization on the privatized SOEs. On the basis of the above mentioned research findings, this study makes a hypothesis that privatization has significant effects the *OPM* of the privatized SOEs.

4.3.2 Efficiency

Efficiency is concerned the manner resources are allocated and also the way goods and services are produced. Efficiency can be divided into two subcomponents reflecting the physical efficiency of input-output i.e. Production transformation (productive efficiency). The second subcomponent is the price efficiency of optimal resource allocation (allocate efficiency). But this distinction is artificial because production decision is a joint decision i.e. decisions that affect allocate efficiency might also have technical ramifications and vice versa.

Productive efficiency is explained through the use of production possibility frontier. The production possibility frontier analysis gives an input-output combination that is more efficient technically, producing more at the same point. The degree of efficiency is the concern of this study. The allocative efficiency, on the other hand is not necessary realized

at a particular point of technical efficiency. To attain allocate efficiency, there is the need to know the relative prices of both input and output and then find the input-output point which, while technically efficient and at the same time brings the highest net value i.e. profit.

SE concerned firm ability to make productive use of its property, equipments and employees by generating sales. A firm should strive to produce more output with a given level of input since the noneconomic objectives are removed from the privatized SOEs. Employee performance is increased because they have flexible financial opportunity, a better incentive, greater scope of entrepreneurial initiatives and increased competition in their working environment. The productive enabling environment is now being provided. *SE* is calculated by dividing to employment. Prior studies such as Baily (1986), Magginson *et al.* (1994), Boubakari and Cosset (1998), and D Souza and Magginson (1999) revealed that privatization result to higher firm performance. This research use *SE* to measure the impact of privatization on the privatized SOEs. Based on the above research findings, this study put a hypothesis that privatization has positive impact on the *SE* of privatized SOEs.

Net income efficiency has to do with net income per employee. The SOEs are expected to use its human, financial and technological resource more effective due to conducive enabling environment created by privatization. Net income is determined after all charges are deducted from operating earnings. The net income efficiency is of interest to this study because it is the result of a number of policies, decisions and provides clues to the effectiveness of a firm's operations especially after taking a major decision like privatization. Previous study results Pryke (1982), Nellis and Losers (2002), Magginson *et al.* (1994), Boubakari and Cosset (1998) and Wei *et al.* (2003) confirmed that privatization

leads to better net income efficiency. This research use *NIE* to measure the effect of privatization on the performance of privatized SOEs. On the basis of previous research findings, this study makes a hypothesis that privatization has positive effects on the *NIE* of the privatized SOEs.

Average collection period *ACP* is the average length of time a company must wait after making a sale before receiving the cash. It is used to appraise receivables of a company and finds the length of time sales are tied up in receivables. The customers no longer deprives the privatized firms of fund that could be use to invest in productive asset and process of production. It is observed that prior to privatization, customers not paying their bills is not due to financial problems but firms' problems of debt management. In fact, it is expensive to evaluate customers' creditworthy and monitor it. Firms that are not diligent in managing credit suffer large losses (Moles *et al.*, 2011). The trend in *ACP* over the years after privatization has been significantly declining and the credit policy of the privatized firms has not been change. This is strong evidence that efficiency of the privatized SOEs has been improved after privatization. The work of Deloof (2003) and Afza and Nazir (2007) confirmed that privatization leads to negative *ACP*. This research use *ACP* to evaluate the effect of privatization on the privatized SOEs. On the basis of the previous research findings, this study makes a hypothesis that privatization influence *ACP* negatively

4.3.3 Independent Variables

Most of the published studies on the performance assessment of privatized enterprises for instance Megginson *et al.* (1994), Hakro and Akram (2009), Freman *et al.* (1997)

Muslumov (2005), Baubakri and Cosset (1998), Sun and Tong (2002), D Souza and Magginson (1999), Zakari *et al.* (2012), Ramamurnity (1999), Wei *et al.* (2003), Osman (2011), Jerome (2008), Qi *et al.* (2000), and LaPorta and Lopez-de-Silanes (1999) use sales, capital, workers (employment), and ownership in their research. Therefore, the application of this measurement in a different context including Nigeria is not in question. The measurements in this study are therefore chosen based on popular usage in the previous studies.

Tecnically, *SALES* is an act of disposing an item. *SALES* also used to describe the disposing of the good and service produced by a firm to the customers. The gross turnover of a firm is also considered as its sales. The sales turnover is used to measure how well a firm used its productive assets. Previous study such as Sun and Tong (2002), and Boardman *et al.* (2003) documented substantial increased in the findings of their studies. This research used sales turnover to measure the effects of privatization on the sales of the privatized SOEs.

CAP refers to firm's productive assets such as building, machinery, equipment, vehicles and working capital. The capital of a firm is used to maximize its capacity and improve its efficiency so as to profit. Government believe that privatization improve the efficiency of the privatized SOEs leading to increase in the capital investment. After privatizing the SOEs, it should increase thir capital expenditure to have higher access to private equity and be more motivated to invest in the new opportunities for growth. The results of LaPorta and Lopez-de-Silanes (1999) and Megginson and Netter (2001) studies confimed that

privatization leads to increased in capital investment. This research uses the increase in capital to measure the improvement in the privatized SOEs capital position.

The effect of privatization on the WKS or employees is crucial in the privatization process. The effect is analyzed through the number of workers in an SOE. The number of workers is also use to asses whether an SOE is over staffed. The government is being very caution about the effect of privatization on employees. The research findings of Ramamurnity (1999), LaPorta and Lopez-de-Silanes (1999), and Boubakri and Cosset (1999) confirmed the negative effects of privatization on the number of workers. This research used the number of workers in SOEs to measure the effect of privatization on workers.

PR is a policy initiative designed to alter the ownership and management of public enterprises away from government to private sector. It implies transfer of control, as a result of transfer of ownership right, from the public to the private sector. In this research privatization is used as a dummy variable. The dummy variable *PR* has 0 and 1. The five years before privatization is denoted by 0 and five years after privatization is denoted by 1. Previous study results Boubakari and Cosset (1998) and Wei *et al.* (2003) confirmed that privatization has positive impact on the privatized SOEs. This research used *PR* to measure the impact of privatization program on the performance of privatized SOEs. On the basis of previous research findings, this study make hypothesis that privatization has positive effects on privatized SOEs.

The *OWN2* of a firm has to do with the legal possession of its equity. Ownership is considered as the right to control firm and its operations. Previous study such as Freman *et*

al. (1997) and Hansmann (1990) presented considerable performance improvement of SOEs after privatization. The improvements were attributed to the new owners stress on the profit objective. The research results of Kikeri *et al.* (1992) and Koceda and Svejnar (2004) confirmed that ownership type facilitate the performance of SOEs after privatization.

4.4 Data

This study has used secondary data; by the nature of the topic, that is the post performance assessment of privatize enterprises; it requires two set of data pre- and post-privatization data for performance assessment. This type of data can only be generated through secondary means. Therefore, a total of 35 companies met this research selection criteria and were considered. The research sourced the financial data of these privatized SOEs for the period of 10 years, the privatizing year is kept salience because it is the year of transition. The data collection is limited to those SOEs that are fully privatized to private investors through public offer of shares because only SOEs that are privatized in this way generate post financial and accounting data that is directly comparable to pre-privatization data. The data on the performance of privatized firms are calculated covering five years before and five years after privatization. Thereafter mean value of each variable is calculated. Year of privatization is excluded from the mean calculation since it is phase of both state and private ownership. The data are sourced from the annual reports of the privatized enterprises, the security and exchange commission and Bureau of Public Enterprises (BPEs) reports.

4.5 Sampling Method

The population of study is the privatized public enterprises in Nigeria. Even though data on the size of public enterprise sector in Nigeria is sometimes contradictory. Nellis (1986) had listed 107 SOEs in 1981, Usman (1989) mentioned 500 companies and enterprises in which federal government has investment in 1986, Lewis (1990) referred to 275 federally owned public enterprises and Sandra (1987) reported that federal government has around 3000 public enterprises. Whatever the number of public enterprises might be, according to TCPC (1993), it is clear that 111 SOEs have been affected by privatization programme (Appendix 1).

The sample size of this study has been determined using Watson (2001) sample size table. Therefore, based on the Watson's sample size table, 35 enterprises have been selected. The information of privatized firms in Nigerian was obtained from different data sources such as the Bureau of Public Enterprises Abuja, an agency responsible for privatizing SOEs. The accounting data for the pre-privatisation years was obtained from the annual reports of the formerly SOEs storied in the NSE library. For the post-privatisation years, information was obtained from the annual reports of the affected enterprise in their headquarters and the NSE library Abuja.

The study has a total of 35 randomly selected firms. The sample covers the banking sector, manufacturing sector, petroleum marketing sector and insurance sector. Appendix 2 presents the sampled companies. In comparison with previous studies of privatized firms' in

Nigerian, the sample this study is more scientifically selected and fairly represents the privatized SOEs.

This study used random sampling on the sectorial bases and sampled 35 privatize SOEs, 20 are insurance companies, five companies are sampled from manufacturing sector, seven companies are sampled fom petroleum marketing sector and three banks are sampled from the banking sector. The sample of this study is diffirent from the other studies on the performance assessment of privatized SOEs in Nigeria because the sample of this study is scientifically selected, biase free and the representation of the SOE in the sample for each sector depend on the number of SOE privatized in that sector.

4.6 Methods of Data Analysis

This study used mean comparison analysis, panel data analysis and generalized method of moment (GMM). In panel data observations, the Fixed Effects Model (FEM) and the Random Effects Model (REM) are used. The advantageous of using the FEM and the REM are explained by Johnston and Dinardo (1997) and Greene (1995).

4.6.1 Mean Comparison Analysis

The mean comparison measures differences between population, samples or unit of analysis. In the mean comparison method, independent and dependent sample (matched sample) can be chosen in the analysis. Since this study is related to measuring firm performance pre- and post- privatization, using the dependent sample is the most

appropriate one. Specifically, according to Corder and Dele (2009), the mean comparison method is used for comparing the firm performance for pre-privatization (B) and post-privatization (A) periods. Let say X_B and X_A are measurement firm performance for pre-privatization and post-privatization periods of sampled group of firm, respectively. The means of firm performance of each sampled group for pre-privatization and post-privatization periods are represented by $\bar{X}_B$ and $\bar{X}_A$, respectively. A higher mean in the succeeding era suggests improvement in the performance of the sampled groups. Throughout the mean comparison analysis, it is assumed that dependent random samples are selected from one population, the population of differences, $D = X_B - X_A$ is continuous, and the n differences are a random sample from the population of differences.

In the opinion of Corder and Dele (2009), two dependent samples mean is used to determine if the difference between the sampled groups is statistically significant. For examining the differences mean performance of grouped firms for pre- and post- privatization periods, $H_0: \mu_B - \mu_A = 0$ against $H_1: \mu_B - \mu_A \neq 0$ are used. The t – test is used to test the hypotheses. In common with other statistical test, the two sample t – test requires that the data have an approximately normal distribution and the standard deviations from the two samples are approximately equal.

The values of t – statistics or t^* is computed according to the given two data set inputs of first data set mean and standard deviation and second data set mean and standard deviation, and then those are compared with the t – critical values. The t^* equation is given by Equation [7].

$$[7] \quad t^* = \frac{\bar{X}_B - \bar{X}_A}{S_m}$$

$$\text{and } S_m = \frac{S_B^2}{n_B} + \frac{S_A^2}{n_A} ; \quad S_B^2 = \sum (X_B - \bar{X}_B)^2 \quad \text{and} \quad S_A^2 = \sum (X_A - \bar{X}_A)^2$$

where:

- $\bar{X}_B$ = the mean of performance ratios pre privatization
- $\bar{X}_A$ = the mean of performance ratios post privatization
- S_m = the standard deviation
- S_B^2 = the variance for X_B
- S_A^2 = the variance of X_A
- n_B = the sample size of X_B
- n_A = the sample size of X_A

The panel data analysis is the most suitable to capture the variations over time of the performance indicators. Similarly, it controls individual firm specific heterogeneity as well as the changes in the firms operating environment; therefore it is the most innovative and active in econometrics now. The advantages of panel data are glaring when intra-individual dynamics and inter-individual differences of cross-sectional or time-series data are blended together. In the opinion of Hsiao *et al.* (1995), panel data usually contain more degrees of freedom and sample variability than cross-sectional data hence improving the efficiency of econometric estimates. Therefore, panel data has more accurate inference of model parameters. It also has greater capacity for capturing the complexities of unit of analysis than a single time series or cross-section data. These attributes of panel data, according to Ben-Porath (1973), include constructing and testing more complicated issues. In fact, he has demonstrated it in his work on women in labour force.

Panel data have the advantage of uncovering dynamic relationships in econometric analysis. In the words of Nerlove (2002), economic behavior is inherently dynamic; therefore the relationships are implicitly or explicitly dynamic. However, the estimation of time adjustment pattern using time series data sometime rely on restrictions because time series observations of current and lagged variables are likely to be highly collinear (Griliches, 1967). With panel data, according to Pakes and Griliches (1984), rely only on the inter-individual differences to reduce the collinearity between current and lag variables to estimate unrestricted time-adjustment patterns

Panel data generates more accurate predictions for individual outcomes through pooling the data rather than generating predictions of individual outcomes using the data on the individual in question. According to Hsiao *et al.* (1993), if individual behaviors are similar, conditional on certain variables, panel data provide the possibility of learning an individual's behavior by observing the behavior of others. In this way, he continued, it is possible to obtain a more accurate description of an individual's behavior by supplementing observations of the individual in question with data on other individuals.

4.6.2 The Fixed Effects Model

The FEM is a method for pooling time-series and cross-section data. Asterion and Hall (2007) and Baltagi (2008) have the opinion that the FEM estimator is also called the least-square dummy variable (LSDV) estimator because it allow different constant for each cross-section unit. The constant in FEM, is treated as group specific that is the model allows for different constant for each group. Equation [8] presents the FEM model.

$$[8] \quad y_{it} = \beta + X_{it}\beta + \varepsilon_{it}$$

where y_{it} is the dependent variable for cross-section unit (firm) i at time t ; X_{it} is the matrix of the values of the explanatory variables for unit i at time t ; β is considered to be constant over time and specific to the i th firm and β is the intercept. In this research, the dependent variables in Equations [1] to Equations [6] are proxies of y and the independent variables of same equations are proxies of X .

It is worth noting that FEM captures all effects which are specified to a particular firm and which do not vary overtime. In fact, if there is a panel of firms or households or countries, the FEM would take account of the basic factors which vary between them but not overtime. Also, in some cases, according to Asterion and Hall (2007), it may involve a very large number of dummy constants as some panel may have thousand individual numbers, in this case the FEM would use N degree of freedom. In such a situation, the model will be transformed by differencing all the variables or taking the deviation from the mean for each variable; this will have the effect of removing the dummy or constant and avoids the problem of estimating so many parameters.

4.6.3 The Random Effects Model

The REM is another method of panel estimation. It is shown in Equation [9]

$$[9] \quad y_{it} = \beta_i + X_{it}\beta + \varepsilon_{it}$$

where u is the disturbance term specific to the i th firm. The y_{it} , β , and X_{it} are as defined in Equation [8].

The error terms (ε_{it}) are random unobserved component that reflects unobserved shocks. ε_{it} terms are assumed independent, with mean zero and constant variance (σ_ε^2) for all firms and in all time periods. The term β_i refers to the intercept parameter that varies across firms and not over time. All behavioral differences between individual firms and over time are captured by the intercept. Individual intercepts are included to control for these firms specific differences. Therefore, the assumptions for ε_{it} in this is that the ε_{it} has zero mean and constant variance σ_ε^2 and are uncorrelated over time and with individual so that $\text{cov}(\varepsilon_{it}, \varepsilon_{js}) = 0$ for $i \neq j$. They also uncorrelated with explanatory variables.

The difference between the FEM and REM is that, the REM handles the constants for each group not as fixed, but as random parameters. The variability of the constant for each group comes from the fact that $\nu_i = \mu + \varepsilon_i$, where ε_i is zero mean standard random variable. According to Asterion and Hall (2007), the advantage of REM is the need to make specific assumptions concerning the distribution of the random component of the unobserved group-specific effects about its correlation with the explanatory variables. Also, the REM has the advantage of few parameters to estimate compared to FEM. Likewise REM allows for additional explanatory variable that have equal value for all observations within the group, that is, it allows use of dummies.

4.6.4 Generalized Method of Movement

Most economic relationships are dynamic and the advantage of panel data is allowing the dynamic adjustment. For instance work of Baltagi and Levin (1986) on a dynamic demand for addictive commodities, Blundell *et al.* (1992) on dynamic model of company investment and Arellano and Bond (1991) on the dynamic model of employment. The GMM is developed to check the limitations and shortcomings of the simple panel data estimation observed.

Similarly, McKenzie (2001) considers the problem of estimating dynamic models with unequally sized panel data. He said, surveys in developing countries and most firms are often taken at unequally sized, spaced intervals and this inequality in turn, imposes nonlinear restrictions on the parameters. Nonlinear least squares, minimum distance and one-step estimators are suggested that are consistent and asymptotically normal for finite T as the number of individuals per cohort or group is allowed to pass to infinity.

Furthermore, Bover and Arellano (1997) propose a simple two-step within estimator for limited dependent variable models, which may include lags of the dependent variable, other exogenous variables and unobservable individual effects. According to them, this estimator is based on reduced form predictions of the latent endogenous variables. As such it is consistent and asymptotically normal for fixed N . Labeaga (1999) applied the Bover and Arellano (1997) method to estimate a double-hurdle rational addiction model for tobacco consumption using an unbalanced panel of households drawn from the Spanish Permanent

Survey of Consumption (SPSC). This study, therefore, employ the GMM estimation as proposed by (Hansen, 1982).

The GMM formalized by Hansen (1982) is also called internal instrument because of the GMM reliance on previous realization of explanatory variables. According to Baun (2004), GMM estimator is more efficient and does not require complete knowledge of the distribution of the data. It requires only specified moments derived from an underlying model for the estimation. Procedurally, according to Wooldridge (2001), GMM works by adding moment's conditions under the assumption that past values of explanatory variables are uncorrelated with the error term.

4.7 Diagnostic Checking

In this study various diagnostic checking have been conducted on the model. The tests include hausman specification test. This test determines which estimator i.e. random effect or fixed effect estimator is more appropriate. Another important test conducted is Variance Inflation Test (VIF) for Multicollinearity. This is use to detect multicollinearity problem among the variables. The Breusch and Pagan Lagrangian Multiplier test (BPL) for random effects is conducted. Similarly, Wald test for the heteroskedasticity is has also been conducted. Wald test for the heteroskedasticity assess the difference between restricted and the unrestricted model. Sargan test for detecting the correlation of instruments with the error term in GMM method of analysis has been conducted on the models.

4.7.1 Hausman Test

In order to choose the right model, the Hausman Specification Test has been performed. The null hypothesis of Hausman test is stated as $H_0: \text{cov}(\lambda_i, X_{it}) = 0$ i.e no correlation between λ_i and X_{it} and alternative hypothesis $H_1: \text{cov}(\lambda_i, X_{it}) \neq 0$. The acceptance of H_0 favours the FEM. If the REM is correctly specified and u is uncorrelated with X , the subset of coefficients that are estimated by the fixed-effects estimator and the same coefficients that are estimated by the REM should not statistically differ.

Table 4.1 presents the summary of Hausman test results of all the models. The results show that the calculated χ^2 values of Model 1, Model 3 and Model 6 are greater than the critical χ^2 value. When the value of Hausman χ^2 is large, the null hypothesis is rejected. Therefore, the REM is consistent estimator. On the other hand, the calculated χ^2 are less than the critical χ^2 value in Model 2, Model 4 and Model 5. Therefore, the FEM is more appropriate estimator than the REM.

Table 4.1
Summary of Hausman Test Results of the Various Models

Model	Dependent Variable	χ^2 Value	Estimator
Model 1	GPM	0.52*	REM
Model 2	OPM	0.01*	FEM
Model 3	NPM	0.90*	REM
Model 4	SE	0.00*	FEM
Model 5	NIE	0.00*	FEM
Model 6	ACP	0.12*	REM

Note: * significant at five percent level of significance
** significant at 10 percent level of significance

4.7.2 The Autocorrelation Test

The dynamic relationships in time-series panel data are characterized by the presence of a lagged dependent variable among the regressors, i.e.

$$[10] \quad y_{it} = \delta y_{i,t-1} + x'_{it}\beta + u_{it} \quad i = 1, \dots, N; t = 1, \dots, T$$

where δ is a scalar, x'_{it} is $1 \times K$ and β is $K \times 1$.

Therefore, there is autocorrelation due to the presences of lagged dependent variables among the regressors and individual effects characterizing the heterogeneity among the individuals in time-series panel data. With time-series data, successive observations are likely to be correlated. Changes in variables, for instance inflation and interest rates are usually more gradual than abrupt; their values in one period will depend on what happened in the previous period. This dependence means that inflation and interest rates correlate with inflation and interest rates in the previous period. When a variable exhibits such correlation over time, it is term as autocorrelation or serially correlation. The two terms are used interchangeably.

According to Hill *et al.* (2011), different observations in a cross-section data set, collected by way of a random sample, are typically uncorrelated. This research collected the data from randomly sampled privatized SOEs in Nigeria. The models are therefore free from autocorrelation. In fact, Asterious and Hall (2007) asserted that in cross-sectional data, the problem of autocorrelation is less likely to exist because the arrangement of the data can easily change without altering the result.

4.7.3 Variance Inflation Test for Multicollinearity

A logical way to detect multicollinearity problem is through the correlation coefficient of variables. When the value of the correlation coefficient is large, the problem of multicollinearity might emerge, even though there is a problem of defining the values considered as large, Asterious and Hall (2007) and Tabachnic and Fidell (2007) considered the VIF value of 0.9 as the threshold beyond which multicollinearity problem is likely to occur. When two or more variables are correlated they contain redundant information and not all the information is needed in the same analysis. The redundant information increases or inflates the size of the error term and therefore weakens the analysis. To treat the problem of multicollinearity, according to Asterious and Hall (2007) and Tabachnic and Fidell (2007), the variables are transformed to log. By logging them, the problem of imperfect multicollinearity is treated. Table 4.2 and Table 4.3 present the results of VIF tests. The result of the test indicated an evidence of multicollinearity among some of the variables. The result shows that ownership and privatization coefficients values are 15.27 and 15.15, respectively. These values are more than the threshold of 0.9, indicating the presence of multicollinearity between *OWN2* and *PR*. This is because the VIF values of *OWN2* and *PR* exceed the threshold of 0.9.

Table 4.2
The Result of Variance Inflation Test for Model One

Variable	VIF	1/VIF
OWN2	15.27	0.06
PR	15.16	0.06
WKS	1.05	0.95
SALES	1.05	0.95
CAP	1.04	0.95

To treat the problem of multicollinearity, according to Asterious and Hall (2007) and Tabachnic and Fidell (2007), the variables are transformed to log. By logging them, the problem of imperfect multicollinearity is treated. Table 4.3 presents the results of the treated VIF test for all the models.

Table 4.3

The Treated Results of Variance Inflation for Model One

Model	Variable	VIF	1/VIF
Model 1 GPM	PR	7.20	0.13
	OWN2	7.17	0.13
	CAP	1.13	0.88
	SALES	1.12	0.89
	WKS	1.09	0.92
Model 2 OPM	PR	7.20	0.13
	OWN2	7.17	0.13
	CAP	1.13	0.88
	SALES	1.12	0.89
	WKS	1.09	0.92
Model 3 NPM	PR	7.20	0.13
	OWN2	7.17	0.13
	CAP	1.13	0.88
	SALES	1.12	0.89
	WKS	1.09	0.92
Model 4 SE	PR	7.20	0.13
	OWN2	7.17	0.13
	CAP	1.13	0.88
	SALES	1.12	0.89
	WKS	1.09	0.92
Model 5 NIE	PR	7.20	0.13
	OWN2	7.17	0.13
	CAP	1.13	0.88
	SALES	1.12	0.89
	WKS	1.09	0.92
Model 6 ACP	PR	7.20	0.13
	OWN2	7.17	0.13
	CAP	1.13	0.88
	SALES	1.12	0.89
	WKS	1.09	0.92

4.7.4 Breusch and Pagan Lagrangian Multiplier

In Model 1, Model 3 and Model 6, REM is preferred over FEM. Therefore, Breusch and Pagan Lagrangian Multiplier test (BPL) for random effects is conducted. Table 4.4 presents the results of the three models.

Table 4.4

The Results of Breusch and Pagan Lagrangian Multiplier Test

Models	Dependent Variable	χ^2 -value	Prob. χ^2
Model 1	GPM	33.35	0.00*
Model 3	NPM	12.99	0.00*
Model 6	ACP	67.88	0.00*

Note: * significant at five percent level of significance

The results show that the χ^2 values of the three models are greater than the tabulated χ^2 values and the prob (χ^2) values for the models are equal to zero. This leads to conclusion that REM is more appropriate estimator in the three models.

4.7.5 Wald Test for Heteroskedasticity

The idea of Wald test for the heteroskedasticity is to assess the difference between restricted model and the unrestricted version of the model. If the restriction does not affect the fit of the model very much, it is accepted as being valid. But if the model fit is much worse, the model is rejected. The measure of how much worse a model fit can get and still be significant comes from the likelihood function that is how likely the model is correct. According to Asterious and Hall (2007), the exact way to form the test is based on the taking twice the difference between the likelihood function of the restricted and unrestricted

model, the value will have χ^2 distribution with the number of degree of freedom equal to the number of restriction imposed on the model. Sometimes the heteroskedasticity test estimates the restricted model and uses the procedure to approximate the full likelihood ratio.

In Model 2, Model 4 and Model 5, FEM is preferred over REM. Therefore, Wald test for heteroskedasticity is conducted on these models. The Wald test results indicated that the calculated prob (χ^2) in the three models is 0.00. This means that the null hypothesis is rejected and concludes that there is no autocorrelation. The three models are robust to rectify the problem. Table 4.5 presents Modified Wald test results for groupwise heteroskedasticity in FEM.

Table 4.5

Wald Test for Heteroskedasticity in Fixed Effects Models

Models	Dependent Variable	χ^2 -value	Prob. χ^2
Model 2	OPM	34.65	0.00*
Model 4	SE	99.11	0.00*
Model 5	NIE	32.26	0.00*

Note: * significant at five percent level of significance

4.7.6 Sargan Test

Sargan test is a method of detecting the correlation of instruments with the error term. According to the test, null hypothesis state that the instruments are valid when they are not correlated with the error term. Therefore, if Sargan test rejects the null hypothesis, the instrumental variables estimator is biased and inconsistent. Hook (2013) said that a Sargan test with p -value of more than 0.05, fail to reject the null hypothesis i.e. the overidentifying

restrictions are valid. Similarly, Arrellano-Bond test for zero autocorrelation and test for robustness are to ensure the fitness of the estimation.

4.8 Conclusion

The chapter discussed the conceptual framework of the research and specifies the models. The equations of profitability models and the efficiency models are stated and explained. The variables used in the models are justified. The chapter also discussed the sources of the data used in this research including the number of sampled SOEs. The mean comparison and panel data methods of analysis used in this research were explained. The FEM, REM and the way of choosing appropriate model are presented in this chapter. The GMM method of analysis is used in this research as robustness

CHAPTER FIVE

DISCUSSION OF RESULTS

5.0 Introduction

In this chapter, the empirical result of descriptive statistics and correlation analysis are presented. The findings of mean comparison analysis, FEM, REM and GMM are tabled and discusses.

5.1 Descriptive Statistics

The results of descriptive statistics are shown in Table 5.1.

Table 5.1
Descriptive Statistics

Variable	Mean	Standard Deviation	Min	Max
GPM	0.41	0.79	0.00	8.23
OPM	0.87	0.71	0.01	1.99
NPM	0.41	1.04	0.00	11.34
SE	0.31	0.25	0.01	0.89
ACP	42.08	12.37	20.68	72.49
NIE	0.29	0.22	0.01	0.90
SALES	30.77	23.27	1.03	99.30
CAP	35.90	26.84	1.18	93.67
WKS	86.65	18.90	16.00	82.00
OWN2	63.95	37.42	0.00	100.00

This table shows that variables *ACP*, *SALES*, *CAP*, *WKS* and *OWN2* have large standard deviations. This means that observations of these variables are more disperse compared to

other selected variables. Observations of *GPM*, *OPM*, *PR*, *NPM*, *SE* and *NIE* are tightly packed around the mean since these variables have small standard deviations.

5.2 Correlation Analysis

Correlation analysis is used to describe the strength and direction of the linear relationship between variables. It takes on values from -1 to $+1$. The sign out the front indicates whether there is a positive correlation (as one variable increases, so too does the other) or a negative correlation (as one variable increases, the other decreases). The size of the absolute value (ignoring the sign) provides an indication of the strength of the relationship. A perfect correlation of 1 or -1 indicates that the value of one variable can be determined exactly by knowing the value on the other variable. A scatter plot of this relationship would show a straight line. On the other hand, a correlation of 0 indicates no relationship between the two variables. The Spearman table giving the correlation coefficients between each pair of variables listed. The results for Spearman correlation are shown in Table 5.2.

It is important to consider is the direction of the relationship between the variables. Is there a negative sign in front of the correlation coefficient value? If there is, this means there is a negative correlation between the two variables (i.e. high scores on one are associated with low scores on the other). The interpretation of this depends on the way the variables are scored.

Table 5.2
Spearman Correlation

	GPM	OPM	PR	SE	ACP	NIE	SALES	CAP	WKS	OWN2
GPM	1.00	-0.07	-0.06	-0.03	0.13	-0.04	0.04	0.00	-0.02	-0.04
OPM		1.00	0.98	0.94	-0.86	0.90	0.17	0.03	-0.06	0.93
PR			1.00	0.93	-0.85	0.90	0.16	0.09	-0.07	0.96
SE				1.00	-0.81	0.93	0.17	0.06	0.00	0.90
ACP					1.00	-0.79	-0.11	0.00	0.17	-0.80
NIE						1.00	0.19	0.06	0.00	0.87
SALES							1.00	0.11	-0.01	0.18
CAP								1.00	-0.05	0.12
WKS									1.00	-0.01
OWN2										1.00

Similarly, it is important to consider the size of the value of the correlation coefficient. This can range from -1.00 to 1.00 . These values indicate the strength of the relationship between the variables. A correlation of 0 indicates no relationship at all, a correlation of 1.0 indicates a perfect positive correlation, and a value of -1.0 indicates a perfect negative correlation. Cohen (1988) suggests the following guidelines for interpreting correlation: small $r = 0.10$ to 0.29 medium $r = 0.30$ to 0.49 large $r = 0.50$ to 1.0

As shown in Table 5.2, variable *PR* has strong correlation with *OPM*, *SE*, *ACP*, *NIE* and *OWN2* because the values of Spearman correlation are higher than 0.80. Except *ACP* and *WKS*, the variable *OPM* has positive correlation with other selected variables. Like *OPM*, this variable has positive correlation with other selected variable except *ACP* and *WKS*. On the other hand, variables *SALES*, *CAP*, *WKS* have weak correlation with other selected variables since the Spearman values are less than 0.50.

5.3 Firms Performance Analysis

This section reports the descriptive analysis of 35 selected SOEs performances. Their performances are evaluated based on the variables of *GPM*, *NPM*, *OPM*, *SE*, *NIE* and *ACP*. The performance of each SOE is evaluated using average value of each variable for five years before and five years after privatization

5.3.1 Gross Profit Margin

Table 5.3 presents the average mean of *GPM* before and after privatization. Only 11 privatized SOEs from the total sampled had their mean average increased after privatization. Nine of these companies recorded average values mean after privatization above the overall average.

Two companies in the marketing subsector had their *GPM* mean increased after privatization. Both Oando Oil and Total Oil recorded average *GPM* after privatization higher than overall average. For instance, Total Oil Company recorded the highest performance. This company had *GPM* average of 0.08 before privatization, it improved to 0.76 after privatizing the company. The performance of the company is above the overall average. In manufacturing subsector, CCNN Plc. is the only company that recorded average increased after privatization. Meanwhile, 50 percent of SOEs in the insurance subsector recorded the *GPM* average increased after privatization. Among them, Standard Insurance recorded the highest average value of *GPM* after privatization. The results also show that only five of them had their average higher than overall average.

Table 5.3

Average Mean Gross Profit Margin of the Selected Firms

Subsector	Name of Firm	Average Mean	
		Before	After
Oil	Conoil	0.08	0.04
	Forte Oil	0.56	0.07
	MRS	0.02	0.02
	Mobil Oil	0.07	0.07
	Okomu Oil	0.50	0.24
	Oando Oil	0.52	1.08
	Total Oil	0.08	0.76
Manufacturing	Natonal Salt Company	0.79	0.71
	Ashaka Cement	0.42	0.18
	Benue Cement	0.77	0.32
	CCNN Plc	0.08	0.11
	WAP Nig Plc	1.00	0.27
Insurance	AIICO Plc	0.33	1.08
	Continental Reinsurance	0.20	0.15
	Conterstone Plc	0.17	0.13
	Cosolidate Insurance	0.15	0.12
	Crusader Nig. Plc	1.00	1.13
	International Energy Insurance	0.20	0.25
	Equity Insurance	0.12	0.13
	Guinea Insurance	0.33	0.25
	Lasaco Assuarance	1.09	0.23
	Law Union Insurance	0.23	0.08
	Linkage Insurance	0.13	0.12
	Niger Insurance	0.22	0.22
	Oasis Insurance	0.34	0.47
	Prestige Insurance	0.17	0.26
	Regency Insurance	0.10	0.11
	Royal Exchange Insurance	0.46	0.61
	Standard Insurance	0.93	1.29
	Unic Insurance	0.44	0.43
	Unity Insurance	0.12	0.20
	Universal Insurance	3.17	0.83
Banking	First Bank Plc	0.35	0.23
	UBA Plc	0.24	0.20
	Union Bank Plc	0.72	0.31
Overall Average		0.46	0.36

Notes: Plc is public liability company.

It is noticed that there is differences in term of performance improvement among the sectors. The sectors that recored deteriorated improvement include manufacturing, oil marketing and banks. Most the SOEs in these sectors injoyed higher protection and more subventions from the government, they were not so exposed to the discipling of the capital market. So the level of exposure to the dictate of capital market and the degree of government protection is a possible reason for the performance diffirences among the sectors. The insurance sector which is less proteted by government performed better than the rest of the sectors.

5.3.2 Net Profit Margin

Table 5.4 presents *NPM* average mean results of the sampled SOEs before and after privatization. Twenty companies recorded average mean increased after privatization and only six have their increase above the overall average. In oil marketing sector, Oando Oil Nigeria Plc. recorded the highest average mean increase of 0.75. The company had 0.20 mean before privatization and the figure increased to 0.95 after privatizing the company. The performance increased of the company is above the overall average.

Only two companies in the manufacturing sector, recorded average mean increased. The performance of WAPCO is above the overall average. The company has 0.34 mean before privatization but it increased to 0.41 after the company is privatized. The dominance of negative mean, particularly in the manufacturing sector may not be unconnected to the withdrawal of government subsidies and other concessions as a result of privatization.

Table 5.4

Average Mean Net Profit Margin

Subsector	Name of Firm	Average Mean	
		Before	After
Oil	Conoil	0.03	0.01
	Forte Oil	0.59	0.06
	MRS	0.01	0.01
	Mobil Oil	0.04	0.04
	Okomu Oil	0.16	0.21
	Oando Oil	0.20	0.95
	Total Oil	0.06	0.52
Manufacturing	Natonal Salt Company	0.73	0.71
	Ashaka Cement	0.12	0.12
	Benue Cement	0.71	0.34
	CCNN Plc	0.12	0.08
	WAP Nig Plc	0.34	0.41
Insurance	AIICO Plc	0.07	1.21
	Continental Reinsurance	0.16	0.78
	Conterstone Plc	0.12	0.37
	Cosolidate Insurance	0.11	0.10
	Crusader Nig. Plc	0.96	1.26
	International Energy Insurance	0.16	0.19
	Equity Insurance	0.11	0.12
	Guinea Insurance	0.27	0.18
	Lasaco Assuarance	0.91	0.17
	Law Union Insurance	0.06	0.07
	Linkage Insurance	0.12	0.11
	Niger Insurance	0.18	0.20
	Oasis Insurance	0.24	0.37
	Prestige Insurance	0.09	0.17
	Regency Insurance	0.15	0.17
	Royal Exchange Insurance	0.43	1.65
	Standard Insurance	0.72	0.90
	Unic Insurance	2.06	0.42
	Unity Insurance	0.57	0.17
	Universal Insurance	3.78	1.04
Banking	First Bank Plc	0.26	0.18
	UBA Plc	0.16	0.13
	Union Bank Plc	0.51	0.26
Overall Average		0.44	0.39

In the Insurance subsector, 13 companies recorded average mean increased after privatization and the performances of three are above the overall average. Continental Reinsurance Company Plc has the highest average mean increase of 0.61. The company has 0.16 mean before privatization but the figure rose to 0.78 after the company is privatized. The 0.61 average mean of the company is above the overall average.

5.3.3 Operating Profit Margin

Table 5.5 presents *OPM* average mean results of the selected SOEs. The results indicated that all the sampled SOEs have recorded average mean increased after privatization. The average mean increased of 15 companies are above the overall average. In the oil marketing sector, the performances of five companies are above the overall average. Forte Oil Company recorded the highest average mean increased of 1.58. The company was having 0.18 mean before privatization, it rose to 1.75 after privatization. The performance of the company is above the overall average. Companies in the manufacturing sector have recorded average mean increased but none of the average mean increase is above the overall average.

In the insurance subsector, the selected SOEs have recorded average mean increase. The performances of eight companies are above the overall average. The result indicated that Royal Exchange Insurance Company Plc. recorded the highest mean increased of 1.61. The mean of the company increased from 0.06 before privatization to 1.67 after privatization.

Table 5.4

Average Mean Results of Operating Profit Margin

Subsector	Name of Firm	Average Mean	
		Before	After
Oil	Conoil	0.15	1.28
	Forte Oil	0.18	1.75
	MRS	0.43	1.71
	Mobil Oil	0.51	1.94
	Okomu Oil	0.40	1.82
	Oando Oil	0.30	1.68
	Total Oil	0.29	1.54
Manufacturing	Natol Salt Company	0.16	1.39
	Ashaka Cement	0.25	1.55
	Benue Cement	0.25	1.57
	CCNN Plc	0.28	1.47
	WAP Nig Plc	0.26	1.56
Insurance	AIICO Plc	0.46	1.65
	Continental Reinsurance	0.57	1.55
	Conterstone Plc	0.07	1.65
	Cosolidate Insurance	0.06	1.62
	Crusader Nig. Plc	0.07	1.56
	International Energy Insurance	0.07	1.65
	Equity Insurance	0.06	1.57
	Guinea Insurance	0.29	1.43
	Lasaco Assuarance	0.06	1.66
	Law Union Insurance	0.06	1.55
	Linkage Insurance	0.07	1.58
	Niger Insurance	0.06	1.55
	Oasis Insurance	0.06	1.46
	Prestige Insurance	0.06	1.56
	Regency Insurance	0.07	1.45
	Royal Exchange Insurance	0.06	1.67
	Standard Insurance	0.18	1.58
	Unic Insurance	0.09	1.37
	Unity Insurance	0.08	1.56
	Universal Insurance	0.07	1.46
Banking	First Bank Plc	0.17	1.57
	UBA Plc	0.16	1.66
	Union Bank Plc	0.11	1.59
Overall Average		0.18	1.58

The sampled banks have recorded average mean increase and two banks performances are above the overall average. UBA Plc. has the highest average mean of 1.50. The company had its mean improved from 0.16 before privatization to 1.66 after privatization. The average mean increase of the bank is above the overall average.

5.3.4 Sale Efficiency

Table 5.6 presents the results of the average mean for sale efficiency *SE*. The average mean results of the *SE* indicated that sampled SOEs recorded average mean increased. The performances of 21 selected SOEs are above the overall average. Three companies in the oil marketing sector have recorded average mean increased above the overall average after privatization. Okumo Oil Company Plc. recorded the highest mean increase of 0.75. The company's mean improved from 0.08 before privatization to 0.83 after privatization. The average mean increased of the company is above the overall average. The companies in the manufacturing sector have recorded average mean increased and three of them had their mean increased above the overall average. Benue Cement Company has the highest average mean increased of 0.55. The mean of the company increased from 0.10 before privatization to 0.65 after privatization.

The results of the insurance sector indicate that the mean of all the sampled companies had improved after privatization. The performances of 13 companies are above the overall average. Two insurance companies, Equity and Lasaco recorded the highest mean increased of 0.60 each. The two companies mean increased from 0.06 for Equity Insurance and 0.05

Table 5.5

Average Mean Results of Sale Efficiency

Subsector	Name of Firm	Average Mean	
		Before	After
Oil	Conoil	0.05	0.28
	Forte Oil	0.08	0.51
	MRS	0.07	0.71
	Mobil Oil	0.08	0.72
	Okomu Oil	0.08	0.83
	Oando Oil	0.07	0.46
	Total Oil	0.06	0.50
Manufacturing	Natonal Salt Company	0.07	0.46
	Ashaka Cement	0.06	0.57
	Benue Cement	0.10	0.65
	CCNN Plc	0.07	0.46
	WAP Nig Plc	0.07	0.55
Insurance	AIICO Plc	0.06	0.56
	Continental Reinsurance	0.05	0.65
	Conterstone Plc	0.07	0.57
	Cosolidate Insurance	0.07	0.61
	Crusader Nig. Plc	0.07	0.65
	International Energy Insurance	0.07	0.45
	Equity Insurance	0.06	0.66
	Guinea Insurance	0.15	0.55
	Lasaco Assuarance	0.05	0.65
	Law Union Insurance	0.05	0.56
	Linkage Insurance	0.06	0.34
	Niger Insurance	0.04	0.54
	Oasis Insurance	0.06	0.35
	Prestige Insurance	0.05	0.45
	Regency Insurance	0.07	0.52
	Royal Exchange Insurance	0.05	0.59
	Standard Insurance	0.16	0.66
	Unic Insurance	0.16	0.57
	Unity Insurance	0.15	0.47
	Universal Insurance	0.19	0.57
Banking	First Bank Plc	0.16	0.66
	UBA Plc	0.17	0.57
	Union Bank Plc	0.18	0.49
Overall Average		0.09	0.55

for Lasaco Insurance before privatization to 0.66 for Equity insurance and 0.65 for Lasaco Insurance Company after privatization. The performances of the two companies are above the overall average. The banks have recorded average mean increased. Their results indicated that First Bank Plc. recorded the highest mean increase of 0.50. The bank mean rose from 0.16 before privatization to 0.66 after privatization. The performance of the bank is above the overall average.

5.3.5 Net Income Efficiency

Table 5.7 presents the average mean results of the *NIE*. The sampled SOEs have recorded *NIE* mean increased after privatization. The average mean increased of 16 companies are above the overall average. The analysis of Table 5.7 shows that in the oil marketing sector Mobil Oil Company recorded the highest mean increase of 0.71. The company's mean rose from 0.08 before privatization to 0.78 after privatization. The mean of the company is above the overall average.

Benue Cement Company in the manufacturing sector recorded the highest mean increase of 0.48. The company had its mean improved from 0.10 before privatization to 0.57 after privatization. The performance of the company is above the overall average. All the companies in the insurance subsector have recorded mean increased and 10 of them had their mean increase above the overall average. Niger Insurance Company Plc. recorded the highest mean increased of 0.59. The company had its mean increased from 0.06 before privatization to 0.65 after privatization. Privatization has improved the performance of the company above the overall average.

Table 5.6
Average Mean Results of Net Income Efficiency

Subsector	Name of Firm	Average Mean	
		Before	After
Oil	Conoil	0.07	0.26
	Forte Oil	0.25	0.39
	MRS	0.07	0.62
	Mobil Oil	0.08	0.78
	Okomu Oil	0.10	0.61
	Oando Oil	0.07	0.38
	Total Oil	0.07	0.38
Manufacturing	Natonal Salt Company	0.09	0.36
	Ashaka Cement	0.05	0.47
	Benue Cement	0.10	0.57
	CCNN Plc	0.07	0.37
	WAP Nig Plc	0.08	0.45
Insurance	AIICO Plc	0.06	0.47
	Continental Reinsurance	0.06	0.55
	Conterstone Plc	0.07	0.63
	Cosolidate Insurance	0.07	0.42
	Crusader Nig. Plc	0.08	0.56
	International Energy Insurance	0.06	0.57
	Equity Insurance	0.06	0.45
	Guinea Insurance	0.15	0.65
	Lasaco Assuarance	0.07	0.56
	Law Union Insurance	0.05	0.44
	Linkage Insurance	0.05	0.54
	Niger Insurance	0.06	0.65
	Oasis Insurance	0.05	0.44
	Prestige Insurance	0.06	0.36
	Regency Insurance	0.06	0.43
	Royal Exchange Insurance	0.06	0.46
	Standard Insurance	0.16	0.55
	Unic Insurance	0.16	0.46
	Unity Insurance	0.15	0.36
	Universal Insurance	0.17	0.65
Banking	First Bank Plc	0.17	0.55
	UBA Plc	0.16	0.46
	Union Bank Plc	0.16	0.57
Overall Average		0.09	0.50

The banks in the subsector recorded mean increased. The mean increased of two banks are above the overall average. Union Bank has the highest mean increase of 0.41. The mean of the bank improved from 0.16 before privatization to 0.57 after the bank is privatized. The performance of the bank is above the overall average.

5.3.6 Average Collection Period

Table 5.8 presents the average mean results of average collection period. The sampled SOEs have recorded negative *ACP* and 20 selected companies had their negative mean above the overall average after privatization. The inclusion of *ACP* as variable in operating efficiency stem from the fact that apart from the suggestion of Baubakri and Cosset (1999), debt recovery has being one of the main problems of SOEs in Nigeria. In fact, most of the SOEs in Nigeria failed to recover their debt before privatization. The inclusion of the *ACP* in the efficiency model offers twine opportunity of assessing how privatized SOEs handle debt recovery and also serve as the contribution.

The oil marketing sector recorded average mean decreased after privatization. Manufacturing sector also recorded mean decreased after privatization and the mean decrease of three companies in the sector are above the overall average. Ashaka Cement Company Plc. recorded the highest mean decreased of 28.06. The mean of the company reduced from 57.30 before privatization to 29.24 after privatization. Companies in the insurance sector have recorded negative *ACP* mean and the decreased of 15 companies are above the overall average. Universal Insurance Company Plc. recorded the highest negative average mean of 36.35.

Table 5.7
Average Mean Results of Average Collection Period

Subsector	Name of Firm	Average ACP	
		Before	After
Oil	Conoil	48.45	24.14
	Forte Oil	43.10	24.91
	MRS	43.06	25.51
	Mobil Oil	41.75	24.20
	Okomu Oil	45.23	22.05
	Oando Oil	49.36	28.89
	Total Oil	53.21	28.27
Manufacturing	Natol Salt Company	54.26	30.38
	Ashaka Cement	57.30	29.24
	Benue Cement	45.47	33.13
	CCNN Plc	54.25	35.32
	WAP Nig Plc	54.27	35.63
Insurance	AIICO Plc	55.37	34.71
	Continental Reinsurance	55.41	35.58
	Conterstone Plc	54.41	34.85
	Cosolidate Insurance	55.28	35.15
	Crusader Nig. Plc	53.98	34.78
	International Energy Insurance	61.61	35.32
	Equity Insurance	53.99	33.09
	Guinea Insurance	43.28	35.11
	Lasaco Assuarance	50.30	33.10
	Law Union Insurance	51.96	33.62
	Linkage Insurance	53.06	32.65
	Niger Insurance	47.36	32.52
	Oasis Insurance	51.04	30.11
	Prestige Insurance	47.89	30.13
	Regency Insurance	49.37	32.11
	Royal Exchange Insurance	50.58	34.06
	Standard Insurance	62.49	31.51
	Unic Insurance	50.37	31.33
	Unity Insurance	60.96	31.64
	Universal Insurance	62.87	26.52
Banking	First Bank Plc	58.34	35.51
	UBA Plc	60.62	37.28
	Union Bank Plc	59.75	31.46
Overall Average		52.57	31.54

The company's average mean drastically dropped down from 62.87 before privatization to 26.52 after the company is privatized. The negative performance of the company is above the overall average. Union Bank Plc. recorded the highest negative average mean of 28.29. The bank had its *ACP* average mean dropped down from 59.75 before privatization to 31.46 after privatization.

5.4 Mean Comparison Analysis Results

This section reports the results of mean comparison method of analysis. Table 5.9. The results of mean comparison analysis of the 35 selected privatized companies are reported according to variables *GPM*, *NPM*, *OPM*, *SE*, *NIE* and *ACP*. This analysis has been done to evaluate whether the SOEs experience changes in the mean difference of each variable value after privatization. In the analysis, the mean of the last year before privatization is compared with the mean of each year after privatization. In the table, year before privatization refers to the last year before privatization.

The results show that, all calculated *t*-values are greater than the critical *t*-values, except in the Year 3 of *NPM* variable. Therefore, H_0 for each variable in each year after privatization is rejected at five percent level of significance. It means that mean of each variable pre- and post- privatization is significantly difference. Therefore, the SOEs performances pre- privatization is significantly different if compared with post- privatization.

Table 5.8
Mean Comparison Analysis

Variable and Statistical Values	Year Before Privatization	After Privatization				
		Year 1	Year 2	Year 3	Year 4	Year 5
GPM:						
• Mean	0.2542	-0.1326	-0.1702	0.1824	0.1248	0.1961
• Standard Deviation	0.0002	0.0022	0.0038	0.0031	0.0053	0.0021
• <i>t</i> -value	1486.335*	-14.745*	-18.335*	26.724*	-23.381*	46.754*
NPM:						
• Mean	0.2712	0.2541	0.2361	0.2646	0.2460	0.2574
• Standard Deviation	0.00100	0.0117	0.0159	0.0182	0.0143	0.0104
• <i>t</i> -value	270.045*	17.481*	-5.400*	1.902	6.025*	19.900*
OPM:						
• Mean	1.5949	1.6589	1.6906	1.7177	1.6417	1.7751
• Standard Deviation	0.0066	0.0080	0.0084	0.0088	0.0091	0.0095
• <i>t</i> -value	240.926*	-157.205*	-153.486*	-50.272*	-47.699*	144.266*
SE:						
• Mean	0.6037	0.7929	0.6160	0.7414	0.7594	0.8891
• Standard Deviation	0.0020	0.0008	0.0009	0.0010	0.0011	0.0012
• <i>t</i> -value	301.126*	-484.596*	-462.834*	-38.668*	-22.365*	-97.467*
NIE:						
• Mean	0.5294	0.6109	0.5600	0.6529	0.6706	0.6937
• Standard Deviation	0.00159	0.0007	0.0007	0.0008	0.0009	0.0009
• <i>t</i> -value	333.974*	-468.507*	-459.812*	-42.810*	-30.779*	-18.841*
ACP:						
• Mean	24.7303	9.7180	11.6926	13.9620	16.4914	19.2103
• Standard Deviation	0.0386	0.5964	0.7955	1.0837	1.4838	1.9813
• <i>t</i> -value	641.371*	16.296*	14.699*	12.883*	11.114*	9.696*

Note: * significant at five percent level of significance

Thus, mean comparison results indicated that the post privatization performances of the sampled SOEs are more than their pre- privatization performance, except in *GPM* and *NPM* and also *ACP*. This implied that the implementation of privatization policy on the selected SOEs have improved their performances with the exception of few mentioned variables.

The *GPM* and *NPM* low post privatisation performance may not be unconnected to credit sales by the SOEs. Most of the SOEs were having poor credit and debt management prior to privatization. This attitude may have tendency to continue even after the privatization and therefore affects the *GPM* and *NPM* of the privatized SOEs. On the other hand, the average collection period measures number of days on average company's credit customer takes to pay their debt. The average collection period (*ACP*) is expected to be negative because the longer the credit stay with the company's debtors, the more the company is denied using the money extended to the debtors. The implication is that, the number of days on average for the collection from company's debtor has reduced and the reduction in the number of days for the collection of the debt from the company debtors now give the company more opportunity to use the collected resources and made the company more efficient.

5.5 The Empirical Analysis of Panel Data Results

The results of panel data analysis are presented and reported. FEM and REM are estimated. In deciding the appropriate estimator, Hausman Specification Test is conducted, in line with Asterious and Hall (2007). This test determines which estimator i.e. FEM or REM is more appropriate.

5.5.1 Model 1: Random Effects Model of Gross Profit Margin

Table 5.10 presents the REM results of the model. The result shows that the coefficient of *PR* and the rest of the selected variables are statistically insignificant at five percent level of

significance. It means that the selected variables have no significant statistical relationship with *GPM*. This implied that the implementation of privatization policy on the sampled Nigerian SOEs have not significantly improved their *GPM*.

Table 5.10
Estimated Results of Gross Profit Margin Model

Variable	Coefficient	Standard Error	z-value	P> z
SALES	-0.077	0.065	-1.18	0.23
CAP	-0.044	0.060	-0.73	0.46
PR	-0.295	0.261	-1.13	0.25
WKS	-0.054	0.056	-0.97	0.33
OWN2	0.133	0.202	0.66	0.51
CONS	0.738	0.801	0.92	0.35

R² Within = 0.02
Between = 0.00
Overall = 0.01
Prob > χ^2 = 0.32

The REM results of the *GPM* model confirmed the result of mean comparison analysis of the model; this because the empirical results of average mean has not reveal significant overall increase. The insignificant empirical results of *GPM* model could be due to fact that the privatized firms have not fully internalized the new policy at the period of this study. Astrin (1997) opined that profitability of a firm may be poor due to structural changes because many types of restructuring imposed higher cost.

The *GPM* results of this research are consistent with (Boubakri & Cosset, 1999). They selected 16 enterprises spread in five African countries and their results suggested a weak improvement in the profitability of newly privatized firms, indicates that efficiency as well

as sales decreased, while capital expenditure rose significantly in the post-privatization period.

Similarly, World Bank (1995) has conducted a study in Sénégal. The results of the World Bank study show that efficiency, profits before taxes, real costs and total factor productivity of the selected privatized firms deteriorated after privatization. Particularly, water and electricity companies have not yielded the expected results after privatization in terms of performance, access and prices. This study concluded that the collective performance of privatized firms in the country have not improved after privatization.

The insignificance of the *IVs* in this model may not to be unconnected to the poor performance *GPM*. Even though it was not the expectation of this study, but the results confirmed the findings of Muslumov (2005). Muslumov stated that the most likely result of privatization is an increase in the profitability, however it appears that privatization in the Turkish cement industry resulted in the deterioration of profitability. He further discovered that the mean declined in the privatized SOEs. Muslumov revealed that 69 percent of all privatized companies in Turkey experience deteriorating value. Similarly Perevalov, Gimadii and Dobrodel (2000) did not find privatization producing improvement in performance of Russian Industrial enterprises particularly, they failed to find any effect of privatization on profit margin

5.5.2 Model 2: Fixed Effects Model of Operating Profit Margin

Table 5.11 shows the FEM results. In the model, *OPM* is the dependent variable. The empirical results of FEM indicated coefficient of *PR* is statistically significant at five percent level. The coefficient of *PR* is 1.289 which indicates that *PR* influences *OPM* positively in the model. The positive relationship between *PR* and *OPM* means that the implementation of privatization policy has improved their *OPM* by 1.289 percent.

Table 5.11

Estimated Results of Operating Profit Margin Model

Variable	Coefficient	Standard Error	z-value	P> z
SALES	-0.003	0.006	-0.50	0.61
CAP	-0.009	0.008	-1.13	0.25
PR	1.289	0.074	17.34	0.00*
WKS	0.012	0.011	1.07	0.28
OWN2	0.106	0.059	1.79	0.07**
CONS	-0.230	0.226	-1.01	0.31

Note: * significant at five percent level of significance

** significant at 10 percent level of significance

R²: Within = 0.98

Between = 0.80

Overall = 0.96

Prob > F = 0.00

Similarly, the FEM results indicated that coefficient of *OWN2* is statistically significant at 10 percent level. The coefficient value of *OWN2* is 0.106 which means that *OWN2* influence on *OPM* is positive. The positive relationship between *OWN2* and *OPM* means that the implementation of privatization policy has improved *OPM* privatized SOEs by 0.106 percent. The positive and statistical results of *PR* and *OWN2* indicate their important role in increasing the *OPM* level of privatized SOEs. It should note that *OWN2* is one of the

control variables. The relationship of *OPM* to the rest of the variables is not statistically significant at any level.

Generally, the findings of *OPM* model are in line with the result of (Jones *et al.*, 1999; and Biggs *et al.*, 1999). Jones *et al.* (1999) conducted a post privatization performance research on Cote d'Ivoires' SOEs. In their study, 81 privatized SOEs were selected covering agriculture, agro-industries, and other tradable sectors. They concluded that firms achieved better performance after privatization. The study also discovered that the privatization have contributed positively to economic welfare, with 25 percent annual net welfare benefits. Similarly, the empirical results of Biggs *et al.* study of 91 Mozambique privatized firms revealed an increase in production levels and sales. The authors further asserted that a related another study covering 152 firms in the manufacturing sector between 1992 and 1998 revealed similar empirical results in terms of labor productivity, sales growth, and profit margin.

The property rights theory is of the view that SOEs are less efficient than private firms because in SOEs, the ownership rights are distributed among all citizens and no member has the right to sell his share. Therefore, there is little incentive for any owner to monitor the performance of the firm's managers. In contrast, the ownership of private firms is confined to few numbers of shareholders, each having the right to sell his shares and as a consequence, the owners have incentives to make managers work more efficiently and maximize their profits. To be precise property rights are linked with the decision-making behavior of the enterprise which affects operational efficiency through cost minimization. It affects incentives which, in turn, determine the behavior of decision-makers. In other words,

private managers face a lot of pressure from shareholders to maximize productive efficiency due to their interests in profit and easily transferable ownership rights.

Therefore, property rights theory explains the inefficiency in SOEs on the grounds that the property rights of the state-owners are much weaker and defused than in the private shareholders. Since the owners of SOEs are the tax payers of the country who cannot transfer their ownership rights, they cannot easily sanction bad management. Moreover, high cost and the difficulties associated with monitoring managerial efficiency in SOEs are the other coin of the difficulties. In effect most tax payers have neither the incentives nor the dedication to pressurize the management of SOEs to be efficient. This, combined with bureaucratic inefficiency produces inefficient public enterprises.

Finally, the property rights analysis of public ownership leads to the conclusion that public enterprises are less economically efficient than private enterprises, the property right theory belief that forms of ownership generate different rewards/penalties. According to the theory, the more dispersed property rights are, the less motivated their holders will be to monitor and to use their assets efficiently.

5.5.3 Model 3: Random Effects Model of Net Profit Margin

Table 5.12 presents the REM results of the *NPM* model. The result shows that coefficient of *PR* is statistically insignificant at five percent level of significance. It means that the variable have insignificant relationship with *NPM*. This implied that the implementation of

privatization policy on the sampled Nigerian SOEs have not significantly improved their *NPM*.

Table 5.12

Estimated Results of Net Profit Margin Model

Variable	Coefficient	Standard Error	z-value	P> z
SALES	-0.056	0.086	-0.66	0.51
CAP	0.016	0.076	0.22	0.82
PR	-0.522	0.342	-1.53	0.12
WKS	-0.111	0.065	-1.70	0.08**
OWN2	0.326	0.265	1.23	0.21
CONS	0.139	1.018	0.14	0.89

Note: ** significant at 10 percent level of significance

R²: Within = 0.00
Between = 0.08
Overall = 0.02
Prob > χ^2 = 0.38

However, the estimated results of REM indicated that coefficient of *WKS* is negative and statistically significant at 10 percent. It means that *WKS* have negative relationship with *NPM*. The coefficient value of *WKS*, even though it is a control variable, indicated that after implementing privatization policy on the SOEs, the mean of the *NPM* decreased by 0.111 percent. The relationship of *NPM* to the other variables in the model is instatistically significant at any level. The negative result of *WKS* is not surprising because most of the SOEs in Nigeria are over staffed. There could be extensive layoffs in the privatized SOEs. The *WKS* result of this research is in line with the findings of (Ramamurti, 1997). He appraises the impact of 1990 restructuring and privatization of the Argentine railroad, the largest in Latin America. The author documents massive decline in employment from 92,000 to 18,682 workers which represents 78.7 percent decrease of the work force.

The higher performance and positively significant coefficient recorded in *OPM* might not be unconnected to the effective and efficient usage of assets by companies after privatization due the pressure of profit motives than other multiple motives. On the other hand, the low and negative coefficient recorded in *GPM* and *NPM* has been attributed to the government withdrawal of subsidies, steep competition and lack of credit management. It is asserted that the dominance of negative *NPM* mean difference after privatization particularly in the manufacturing sector may not be unconnected to the withdrawal of government subsidies and other concessions. Similarly the negative *NPM* mean after privatization in the banking subsector might be attributed to the effects of competition and the withdrawal of direct government influence on the subsector. Also it is observed that the unfavorable *GPM* results in the banking subsector may not be unconnected to the removal of government accounts from these banks and the steep competition in the sector. D'souza and Megginson (1999) adduced these factors as the reason for their negative results of their study.

5.5.4 Model 4: Fixed Effects Model of Sale Efficiency

Table 5.13 presents the FEM results of the *SE* model. The results of FEM indicated that the coefficient of *PR* is statistically significant at five percent level. This shows that there is positive relationship between *PR* and *SE* which mean that the implementation of privatization policy SOEs has positively improved SE of the selected SOEs. The value of *SE* is increased by 0.486 percent. The other variables are statistically insignificant.

Table 5.13

Estimated Results of Sale Efficiency Model

Variable	Coefficient	Standard Error	z-value	P> z
SALES	-0.003	0.005	-0.63	0.52
CAP	0.007	0.008	0.96	0.33
PR	0.486	0.050	9.58	0.00*
WKS	-0.012	0.013	-0.98	0.32
OWN2	-0.019	0.037	-0.52	0.60
CONS	0.212	0.145	1.46	0.14

Note: * Significant at five percent level

R²: Within = 0.93
 Between = 0.03
 Overall = 0.40
 Prob > F = 0.00

The result of this research is consistent with the study of (LaPorta & Lopez-de-Silanes, 1999). They carried out an empirical study of performance on 218 Mexican SOEs privatized in 1992. The authors discovered sales per employee increases and privatized firms reduced blue- and white-collar employment by half.

Neoclassical economic theory suggested that in SOEs management responsiveness to market signals affects the firms' behavior and firm's performance. Under competitive market conditions, private and social objectives are more closely associated. Competition improves monitoring possibilities and incentives for productive efficiency when competition increases, private ownership offers incentives and motivations for managers to proactively adopt profit-maximizing behavior, and this factor might be missing in SOEs counterparts.

Therefore, privatization accompanied by competition which is caused by deregulation, increases both technical and economic efficiency that are absent in public enterprises. In Neo-classical economic theory, market structure and the degree of competition matters most. The private enterprise managers consider it the main challenge to interact with market signals, emphasize profit maximization and minimize the cost. It is in the light of that, they will be promoted, demoted or fired.

5.5.5 Model 5: Fixed Effects Model of Net Income Efficiency

Table 5.14 presents the FEM results of the *NIE* model. The empirical results of FEM shows that coefficient of *PR* is statistically significant at five percent. This shows that there is positive relationship between *PR* and *NIE*. The implementation of privatization policy has increased the value of *NIE* of privatized SOEs by 0.484 percent. The policy of privatization implementation on selected SOEs has positively improved *NIE*. The coefficient value of *PR* shows its value to *NIE* after the implementation of privatization program. The rest of the variables are statistically insignificant at five percent level.

The result of this research is consistent with the findings of (Megginson *et al.*, 1994; Wei *et al.*, 2003). The Megginson *et al.* (1994) examines financial and operating performance of 61 companies from 18 countries and 32 industries during the period 1961 to 1990. The authors presented strong evidence that as a result of privatization, the sampled firms become more efficient and profitable. The authors have not found evidence that employment decline after privatization of the sampled companies.

Table 5.14
Estimated Results of Net Income Efficiency Model

Variable	Coefficient	Standard Error	Z-value	P> z
SALES	-0.000	0.005	-0.01	0.99
CAP	0.008	0.008	1.06	0.28
PR	0.484	0.059	8.20	0.00*
WKS	-0.011	0.012	-0.92	0.35
OWN2	-0.068	0.053	-1.28	0.20
CONS	0.362	0.206	1.75	0.08**

Note: * significant at five percent level of significant

** significant at 10 percent level of significance

R²: Within = 0.89
Between = 0.03
Overall = 0.39
Prob > F = 0.00

Similarly, Wei *et al.* (2003) conducted a research on the operating and financial performance of 208 firms privatized in China in the period 1990 to 1997. The results show significant improvements in sales, net income efficiency, output and declines in leverage following privatization. They confirmed that firms in which 50 percent voting control is giving to private investors through privatization experience significantly improvements in employment, profitability and sales efficiency compared to those that remain under the state's control. The authors conclude that privatization works in China, particularly when control is passed to private investors.

The principal-agent theory is of the view that SOEs has no efficient mechanisms of effectively controlling the actions of the agents leading to misallocation of scarce resources. In SOEs, the task of monitoring managerial performance is entrusted in the hand of government unlike in the private. The most obvious difference in the relationship between managers of SOEs and their principals is that principals do not typically seek to maximize

profits. There are no marketable shares of the firm and so public enterprises managers are not facing the threat of bankruptcy and market control. However, in the private owned firms, the task of monitoring managerial performance is entrusted in the hands of many parts that depend on the assumption of profits maximization. So, the managerial objectives will be constrained by the firm's shareholders, investors, and the firm's creditors.

According to principal-agent theory in SOEs, the agents pursue their own goals due to asymmetries information, incomplete contracts and the absence of clear objectives, but in private firms agents act according to contracts. Likewise, the incentive is weak and unrelated to the profit motive in SOEs; agents have no enthusiasm to achieve the highest efficiency level. In contrast, private ownership sets a precise restriction on the managerial behaviour by linking it to expected future profits. If profits decline, it will squeeze share prices and increase takeover bids. Shareholders know the consequences of poor managerial performance and have enough incentive to motivate managerial behaviours; hence they linked managerial salaries to profit in the private sector. This action makes the welfare of economic agents improved in a competitive market and also allows the agent to learn what consumers want, how much they are willing to pay, what factors and methods of production are available and so on. The process continuous to ensures that resources are reallocated to new preferable uses in the best possible way.

5.5.6 Model 6: Random Effects Model of Average Collection Period

In the *ACP* model, REM regressor is choosed. Table 5.15 presents the results of REM of the *ACP* model. The coefficient of privatization is statistically significant at five percent. The

negative coefficient value of *PR* implies that *PR* negatively influences *ACP*. The coefficient of *PR* value indicated that after implementing privatization policy on the selected SOEs, the mean of *ACP* is decreased by 23.241 percent. Similarly coefficient of *WKS* is positively and statistically significant at 10 percent level of significance. The coefficient of *WKS* even though it is a control variable, indicated that the implementation of privatization policy improved the *ACP* by 0.000. The rest of the variables in the model are statistically insignificant.

Table 5.15:
Estimated Results of Average Collection Period Model

Variable	Coefficient	Standard Error	Z-value	P> z
SALES	0.434	0.492	0.88	0.37
CAP	0.686	0.467	1.47	0.14
PR	-23.241	1.947	-11.93	0.00*
WKS	0.000	0.000	2.46	0.01**
OWN2	1.694	1.523	1.11	0.26
CONS	42.695	5.468	7.81	0.00**

Note * significant at five percent

** significant at 10 percent level of significance

R²: Within = 0.80

Between = 0.15

Overall = 0.62

Prob > F = 0.00

The result of the *ACP* model of this research is in line with (Afza & Nazir, 2007; Deloof, 2003). The findings of their study documented a significantly negative *ACP*. Deloof (2003) did an extensive work on the Belgian nonfinancial firms for period covering 1992 to 1996 with a total sample of 1009. The result of his study shows a negative and statistically significant relationship between *ACP* and efficiency. He, therefore, concluded that corporate efficiency increase by reducing the number of day accounts receivables. He said that firms that are less efficient are likely to wait longer to pay their bills. Similarly, Nazir and Afza

(2009) investigated the relationship between *ACP* and efficiency of 204 selected nonfinancial firms listed in Karachi stock exchange for the period of 1998 to 2005. The results of their study revealed statistically negative relationship between *ACP* and efficiency. Therefore, they recommended a conservative approach in financial policies of working capital.

5.6 Generalized Method of Moment

To corroborate with the results of panel data analysis, system GMM estimation is also run and the results are presented.

5.6.1 Gross Profit Margin Model

The *GPM* model has passed the Sargan test of over identifying restrictions. The probability χ^2 value of the Sargan test is 0.27. This means that the *p*-value of the test is greater than 0.05. Table 5.16 shows that the coefficient of *OWN2* is positively and statistically significant at five percent level of significant. It means *OWN2* influence *GPM* positively. Therefore the implementation of privatization policy caused *OWN2* to influences *GPM* positively.

Similarly, the coefficient of *PR* is negatively and statistically significant at five percent level of significant. *PR* has a coefficient value of -2.338 which indicates that *PR* influences *GPM* negatively in the model. The coefficient value of *PR* implies that the implementation of privatization policy caused declining in *GPM* of the SOEs by 2.338 percent. The negative

influence of *PR* on *GPM* indicated that the implementation privatization policy did not add worth to the performance of SOEs. The relationship of *GPM* to the rest of the variables is not statistically significant at five percent level of significant. The GMM results of *GPM* model of this research is in line with findings of the World Bank study. World Bank (1995) conducted a study in Sénégal and concluded that the collective performance of privatized firms deteriorated after privatization in terms of net operating surplus and profits before taxes, real variable costs and total factor productivity. Also, water and electricity companies have not yielded the expected results after privatization in terms of performance, access and prices.

Table 5.16
Estimated Results Gross Profit Margin Model

Variable	Coefficient	Standard Error	Z-value	P> z
CONS.	-0.086	0.056	-1.55	0.12
SALES	-0.117	0.093	-1.26	0.20
CAP	0.175	0.113	1.54	0.12
PR	-2.338	0.715	-3.27	0.00*
WKS	-0.161	0.120	-1.34	0.18
OWN2	0.743	0.254	2.93	0.00*

Note: * significant at five percent level of significance

The GMM results are very much similar with average mean results and panel data results. In both the panel data and GMM results, the *PR*, *WKS* and *SALES* maintained their negative influence on *GPM*. In addition, the negative influence of the coefficient of *PR* is statistically significant at five percent level of significance in GMM results. The coefficient of *CAP*, has improved to positive in system GMM results but the p-value remained insignificant in both the two system of analysis. Similarly *OWN2* maintained its positive

coefficient in both panel data results and GMM results and the p -value of *OWN2* variable has improved to five percent level of significance in GMM results.

5.6.2 Operating Profit Margin

The *OPM* model has not passed Sargan test at one-step. The χ^2 value of the model at one-step is 0.00; that is, the p -value of the test is less than 0.05. Therefore a two step is further conducted. After conducting two step regressions, the model passed the Sargan test. The probability χ^2 value is 0.99. The p -value is greater than 0.05. Table 5.17 presents the results of GMM method of analysis. In the *OPM* model, the coefficient of *SALES* is negatively and statistically significant at five percent level of significance. The coefficient value implied that the implementation of privatization policy caused a decreased of 0.003 in *SALES* value of SOEs.

Table 5.17
Estimated Results of Operating Profit Margin Model

Variable	Coefficient	Standard Error	Z-value	P> z
CONS	0.984	0.005	16.37	0.00*
SALES	-0.003	0.000	-7.81	0.00*
CAP	-0.000	0.000	-0.91	0.36
PR	0.014	0.009	1.65	0.09**
WKS	-0.003	0.003	-1.01	0.31
OWN2	0.016	0.005	3.16	0.00*

Note: * significant at five percent level of significance

** significant at 10 percent level of significance

On the other hand, the coefficient value of *OWN2* positively and statistically significant at five percent level of significance. The coefficient implies that the implementation of

privatization policy have increased the *OWN2* of the privatized SOEs increased by 0.016 percent. Similarly, the coefficient of *PR* is positively and statistically significant at 10 percent level of significance. This indicates that *PR* influences *OPM* positively in the model. The coefficient value of *PR* shows that by implementing privatization policy, *OPM* of SOEs have increased by 0.014 percent. The rest of the variables have no statistical significance. The findings of this research are in line with the research findings of Boubakr *et al.* (2004). Their study examined the post privatization performance of privatized firms in Asia. They discovered that privatization leads to increase in output, profitability, and efficiency of SOEs.

The GMM results of this research are quite similar with panel data results with minor but noticed differences. For instance, privatization and ownership maintained positive and statistically significant coefficients in both panel data results and GMM results. Similarly, sales have also maintained negative coefficient in both the two models with a significant p-value in system GMM. The coefficient capital and coefficient workers experienced minor changes. The two variables have positive coefficients and none statistically significant p-values in panel data results but the positive coefficient changed to negative while maintaining the none statistically significant p-value in GMM results.

5.6.3 Net Profit Margin

The *NPM* model has not pass the Sargan test of over identifying restrictions. The probability χ^2 value of the test is 0.00 therefore; the two step regression is conducted. In the two steps, the model passed the Sargan test. The probability χ^2 result is 1.00. Similarly, the model passed the Arellano-Bond test for zero autocorrelation in the first-differenced errors. The result of this test is 0.89 indicating no autocorrelation in the model. Table 5.18 presents the results of GMM for the *NPM* model. The coefficient of *PR* is negatively and statistically insignificant at any level of significance in the *NPM* model. This means the implementation of privatization policy has not improved the *NPM* of the privatized SOEs.

Table 5.18
Estimated Results of Net Profit Margin Model

Variable	Coefficient	Standard Error	Z-value	P> z
CONS	-0.345	0.210	-1.64	0.10
SALES	-0.255	0.226	-1.13	0.26
CAP	0.317	0.360	0.88	0.37
PR	-4.641	2.825	-1.64	0.10
WKS	-0.813	0.538	-1.51	0.13
OWN2	2.088	1.176	1.77	0.07**

Note: ** significant at 10 percent level of significance

In the *NPM* model, the coefficient of *OWN2* is the only one that has positive and statistical significant at 10 percent level of significance. This means that *PR* influence *OWN2* positively. The positive coefficient of *OWN2* implies that the implementation of privatization increased the *OWN2* of the selected SOEs by 2.088 percent. The relationship of the rest of the variables to *NPM* is not statistically significant at five percent level of significant.

The GMM results of this research are similar to the average mean results and panel data results but the system GMM results are more robust. The *OWN2* and *CAP* in both system GMM and panel data models have positive coefficient and the *p*-value of *OWN2* is statistically significant at 10 percent level of significance in system GMM model.

Also the amount of influence to *NPM* by these two variables is more in system GMM, for instance the coefficient value of *OWN2* in system GMM is 2.088 while it is 0.326 in panel data output. Similarly, *CAP* has 0.317 in system GMM and 0.016 in panel data. Likewise, in both panel data and GMM, *WKS*, *PR* and *SALES* have maintained negative influence on *NPM* and non-statistical *p*-value, although it is noticed that *WKS* has a *p*-value of 0.08 in panel data regression results, a difference to system GMM.

5.6.4 Sale Efficiency

SE model has passed the Sargan test. The probability χ^2 value of the test is 0.08. The *p*-value is greater than 0.05. Table 5.19 presents the GMM results of *SE* model. In the *SE* model of GMM, all the variables are not statistically significant at five percent level of significance, except the constant. The coefficients of *OWN2*, *WKS* and *SALES* are positive. It means that these variables influence *SE* positively. *PR* is negatively and statistically insignificant. This means that the implementation of privatization policy has not positively and statistically improved the *SE* of privatized SOEs.

Table 5.19

Estimated Results of Sale Efficiency Model

Variable	Coefficient	Standard Error	z-value	P> z
CONS	1.069	0.026	39.97	0.00*
SALES	0.000	0.001	0.01	0.99
CAP	-0.000	0.002	-0.13	0.89
PR	-0.020	0.013	-1.48	0.13
WKS	0.001	0.001	0.97	0.33
OWN2	0.000	0.003	0.06	0.94

Note: * significant at five percent level of significance

The findings of this research are in line with the study of (Buchs, 2003). The research findings of Buch revealed that evidence about post privatization performance of privatized SOEs is patchier, for instance, findings in Cameron's privatization reveals significant problems with electricity supply since privatization.

The *SE* model of the GMM method of analysis, when compared with the *SE* model of panel data method of analysis revealed dissimilarities. The *SE* model of panel data is more robust than the *SE* model of the system GMM. Comparing the coefficient and *p*-values of the *SE* model in both panel data and the system GMM makes it more explicit. In the system GMM all the variables except *PR* which has coefficient of 0.020, influence *SE* with coefficient of 0.000, respectively. The coefficient value could be either positive or negative. In panel data results *PR* is positively and statistically significant at five percent level of significance while the same variable is not statistically significant in GMM results. Similarly there is no variable in the panel data and system GMM that exhibit sameness of coefficient either positive, negative or *p*-value.

5.6.5 Net Income Efficiency

The NIE model has not pass the Sargan test at one-step estimation. The result of the Sargan test of this model shows that the probability χ^2 value is 0.00, which means that the p -value is less than 0.05. Therefore, two-step estimation was conducted. Sargan test result of the two steps has χ^2 value of 1.00. The p -value of the test is greater than 0.05. The Arellano-Bond test for autocorrelation in the first-differenced errors was carried out and the result of the test is 0.25, indicating no autocorrelation in the model. Table 5.20 presents the GMM results of *NIE* model.

Table 5.20
Net Income Efficiency

Variable	Coefficient	Standard Error	z-value	P> z
CONS	0.991	0.009	10.33	0.00*
SALES	-0.001	0.000	-3.08	0.00*
CAP	0.008	0.000	13.38	0.00*
PR	-0.001	0.011	-0.15	0.87
WKS	-0.005	0.004	-1.14	0.25
OWN2	0.008	0.008	1.05	0.29

Note: * significant at five percent level of significance

In this model, the coefficient of *CAP* is positively and statistically significant at five percent level of significance. This indicate that *PR* influence *CAP* positively. Therefore, the implementation of privatization policy improved the *CAP* of the SOEs by 0.008 percent. The coefficient of *SALES* is negatively and statistically significant at five percent level of significance. This means that *PR* influences the *SALES* negatively. After the implementation of privatization policy, the *SALES* value of the SOEs decreased by 0.001 percent. Similarly, the coefficient of *PR* is negatively and statistically insignificant. This indicated that the

implementation of privatization policy has not improved the *NIE* of the privatized SOEs. The GMM results of this research are in line with Boubakri and Cosset (1999). They selected 16 enterprises in five African countries and their results suggested a weak improvement in the profitability, efficiency as well as *SALES* decreased in the post-privatization period.

The *NIE* results of the GMM method of analysis are similar to the mean comparison analysis and panel data analysis. The *CAP* maintained its positive coefficient in both GMM and panel data methods of analysis, in GMM the positive coefficient of *CAP* is statistical significant at five percent level of significance.

The coefficient value of *CAP* in panel data analysis is 0.008 and a *p*-value of 0.28 indicating a non statistical significance, while the same *CAP* has a coefficient value of 0.008 and *p*-value of 0.00 in GMM method of analysis. The coefficient of *PR* made the major difference in the two methods of analysis. In the panel data method of analysis, *PR* has a coefficient of 0.484 and a statistical *p*-value of 0.00, but in the GMM method of analysis, *PR* has a negative coefficient of 0.001 and a non statistical *p*-value of 0.87. This is one of the reasons that made panel data method of analysis more robust over GMM method of analysis.

Similarly *WKS* had a negative coefficient value of 0.011 and a *p*-value of 0.35 in panel method of analysis while coefficient value *WKS* in GMM is negative 0.001 and *p*-value of 0.25. *SALES* maintained its negative influence in both panel data and system GMM methods; even though the negative influence of *SALES* is statistically significant in GMM method.

5.6.6 Average Collection Period

The *ACP* model has not pass Sargan test in the one-step system GMM. The probability χ^2 value of the test is 0.00, which is less than 0.05. Therefore two-step system GMM is conducted. The Sargan test of two-steps, χ^2 results is 1.00. This result is more than 0.05. So, the Arellano-Bond test for zero autocorrelation in the first differenced errors was conducted and the result of the test is 0.75, indicated no autocorrelation. Table 5.21 presents the GMM results of the *ACP* model.

Table 5.21
Average Collection Period

Variable	Coefficient	Standard Error	z-value	P> z
CONS	1.060	0.005	18.42	0.00*
SALES	-0.236	0.049	-4.79	0.00*
CAP	0.287	0.120	2.39	0.01**
PR	3.791	0.516	7.34	0.00*
WKS	0.076	0.149	0.51	0.61
OWN2	-2.031	0.325	-6.24	0.00*

Note: * significant at five percent level of significance

** significant at 10 percent level of significance

In the *ACP* model of GMM, the coefficient of *SALES* is negatively and statistically significant at five percent level of significance. This means that *PR* influence the coefficient value of *SALES* negatively in the *ACP* model and indicates that the implementation of privatization policy on the privatized SOEs decreased *SALES* of the selected SOEs by 0.236 percent. Likewise, the coefficient *OWN2* is negatively and statistically significant at five levels of significances. This means *PR* influence *OWN2* negatively in the model. The *PR* coefficient value implies that the implementation of privatization policy decreased the

OWN2 of the selected SOEs by 2.031 percent. The coefficient of *WKS* is not statistically significant at five percent level of significance.

On the other hand, coefficient of *PR* is positively and statistically significant at five percent level of significance. This means that the implementation of privatization policy has increased the *ACP* of the selected SOEs by 3.791 percent. Similarly, the coefficient of *CAP* is positively and statistically significant at 10 percent level of significance. This shows that the implementation of privatization policy on the sampled SOEs increased *CAP* by 0.287 percent. The results of this research are in line with the study of Gupta (2004). Gupta used data from Indian SOEs and conducted a study of firm performance. His results revealed that privatization has positive impact on profitability and labor productivity.

The results of the *ACP* model of the GMM method of analysis are not too similar to the results of *ACP* model of panel data analysis. In the GMM method of analysis, *PR* and *CAP* have positive and statistical influence on the *ACP*. But in the panel data method of analysis, *PR* is negatively and statistically significant which indicated that *PR* influence *ACP* negatively. The rest of the variables in the panel data method of analysis, have positive influence on *ACP* model, although the positive influence is not statistically significant.

The observed differences in the results of GMM and panel data methods of analysis may not be unconnected to the fact that GMM is developed to check the limitations of the panel data method of analysis. Although the advantages of panel data is not in doubt as lamented by Baltagi (2008) that panel data give a researcher a large number of points, increasing the

degree of freedom and reducing the collinearity among explanatory variables, this leads to improving the efficiency of econometric estimates. Also the technique of panel data estimation takes heterogeneity into account by following subject-specific variables. It also allows a researcher to analyze a number of economic questions that cannot be addressed using other methods. Panel data is suited to study the dynamics of change in a firm. The advantages of panel data are more glaring when intra-individual dynamics and inter-individual differences of cross-sectional or time-series data are blended together. In another instance, Rosenbaum and Rubin (1985), Heckman *et al.* (1998) and Hsiao *et al.* (2006) clearly demonstrated panel's data greater capacity in capturing complication of human behavior when evaluating the effectiveness of social programs. Hsiao (2007) believed Panel data equally generates more accurate predictions for individual outcomes through pooling the data rather than generating predictions of individual outcomes using the data on the individual in question.

Nevertheless, GMM is used to check the limitations and shortcomings of panel data estimation as proposed by Arrelano and Bond (1991), Arrelano and Bover (1995) and Blundell and Bond (1998). According to Baun, Schaffer and Stillman (2003), GMM estimator is more efficient than panel data and GMM does not require complete knowledge of the distribution of the data. It requires only specified moments derived from an underlying model for the estimation. According to Wooldridge (2001), GMM works by adding moment's conditions under the assumption that past values of explanatory variables or past values of dependent variable are uncorrelated with the error term.

From Table 5.22, the results of the three methods of analysis used in this research ie mean comparison, panel data ie FEM/REM, and GMM revealed mixed findings. The mean comparison results show that three out of the six variables recorded higher performance (HP). The variables that recorded higher performance are *OPM*, *SE* and *NIE*, while the remaining three variables recorded lower performance (LP). The variables that recorded lower performance are *GPM*, *NPM* and *ACP*. The results of mean comparison method of analysis revealed mixed out come of the privatized SOEs. The efficiency variables show higher performance than profitability variables. The *ACP* which is the time company used to collect its money from the customers has reduced significantly.

Table 5.22
The Impact of Privatization on Dependent Variables

Dependent variable	Mean comparision	FEM/REM	GMM
GPM	LP	- ins	- sig
NPM	LP	- ins	- ins
OPM	HP	+ sig	+ sig
SE	HP	+ sig	- ins
NIE	HP	+ sig	- ins
ACP	LP	- sig	+ sig

Note: ins is stand for insignificance and sig is stand for significance

In panel data method of analysis *GPM*, *NPM* and *ACP* had negative coefficient. The negative coefficient of *GPM* and *NPM* are statistically insignificant but the negative coefficient of *ACP* is statistically significant. On the other hand, *OPM*, *SE* and *NIE* recorded positive and statistically significant result. The performance of privatized SOEs from the panel data analysis revealed mixed results just like mean comparison method of analysis.

The results of GMM method of analysis revealed that only *OPM* and *ACP* recorded positively and statistically significant result. The reseat of the variables had negative results. The negative result of *GPM* is statistically significant. But the negative results of *NPM*, *SE* and *NIE* are statistically not significant. The results of the three methods of analysis indicated that most of the profitability variables recorded lower performance and statistically insignificant results than the efficiency variables. This variations may not be unconnected to the fact that the sales may be on credit where payment to be made in the future. This causes the profitability variables showing low performance and recording statistically insignificant values.

5.7 Conclusion

In this chapter, the descriptive statistics and spearman correlation analysis were presented. The empirical results of firm performance for each of the sampled SOEs were analysed. This includes the mean comparison analysis. The results of the panel data analysis for all the models, both FEM and REM are discussed together with diagnostic checking of the appropriate model. Finally, the empirical results of the GMM models were presented and analysed.

CHAPTER SIX

SUMMARY OF FINDINGS, POLICY IMPLICATION AND CONCLUSION

6.0 Introduction

The chapter presents summary of findings, policy implication, recommendation for future study and conclusion. In the summary, mean comparison, panel data analysis and GMM results are focused. Similarly, the policy implication and limitation of the study are also presented. Recommendation for future research and conclusion are equally made.

6.1 Summary of Findings

Consequent to mean comparison analysis, the major findings is summarized. Most of the sampled companies have recorded mixed results after privatization. For instance, the gross profit margin *GPM* result revealed that 19 out of 35 privatized SOEs equivalent to 54 percent had their *GPM* increased after privatization while the remaining 16 representing 46 percent recorded decrease in *GPM* during the same period. This finding implies that most of the privatized SOEs have recorded average mean increase of *GPM* as a result of privatization.

Looking at the result on sector basis, five privatized SOEs out of seven in the oil marketing sector recorded *GPM* average mean increase as a result of privatization but the remaining two companies recorded negative *GPM* mean. In manufacturing sector, two companies

recorded *GPM* average mean improvement after privatization. The *GPM* average mean results of the insurance sector show that 12 out of 20 privatized SOEs have recorded *GPM* average mean increase in the period after privatization while 8 companies had negative *GPM* average mean in the same period. In the banking sector none of the three sampled banks recorded *GPM* average mean improvement.

The net profit margin *NPM* result shows that from the 35 sampled privatized SOEs, 16 companies were found to have recorded *NPM* average mean increase after privatization while 19 companies recorded negative *NPM* average mean after privatization. It means that 54 percent of the sampled privatized SOEs recorded negative *NPM* average mean after privatization. The dominance of negative *NPM* mean in most of the sampled privatized SOEs, particularly in the manufacturing sector may be connected to the withdrawal of government subsidies and other concessions. Similarly in the banking sector, the negative *NPM* mean after privatization might be attributed to the effects of competition and the withdrawal of government influence in their operations.

In the oil marketing sector, four companies out of seven sampled privatized SOEs recorded *NPM* average mean improvement after privatization but the remaining three companies recorded negative *NPM* average mean after privatization. In manufacturing sector, only CCNN plc had *NPM* average mean improvement. The other four companies have all recorded negative *NPM* average mean after privatization. Likewise the sampled privatized banks recorded negative *NPM* average mean after privatization. In the insurance sector, 11 companies out of 20 sampled privatized SOEs recorded *NPM* average mean increased after

privatization, while the remaining 9 companies had their *NPM* average mean decreased after privatization.

The result of the operating profit margin *OPM* indicated that the 35 sampled privatized SOEs recorded significant *OPM* average mean increased after privatization. The result explicitly implied that the performance of the privatized SOEs have been improved after privatization, also the companies are better under private individuals than under the control and ownership of government. Finally the analysis of *GPM*, *NPM* and *OPM* indicated mixed outcome after privatizing the companies.

In the efficiency model, the result of the mean comparison revealed that all the variables in the sampled privatized SOEs have on aggregate improvement average mean after privatization. In particular, *SE* and *NIE* were found to have 100 percent average mean increased in all the 35 sampled companies.

In the panel data analysis, the results of the profitability models indicated that most of the companies documented profitability mixed increased. In the *OPM* model for instance, the coefficient of *PR* influences *OPM* positively. In the *NPM* model, the coefficients of the control variables *CAP* and *OWN2* are positive.

For efficiency models, the results indicated that most of the sampled companies recorded improved mixed efficiency. In the *NIE* model, the coefficients of *PR* and *CAP* variables are positive indicating that their influences to *NIE* are positive. In *SE* model, *PR* has positive coefficient and the coefficient shows the influence of *PR* on the *SE* is positive. Similarly, in

the *ACP* model, the coefficient of *PR* is negative indicating the influence of the coefficient *PR* on *ACP* is negative as expected.

In the GMM profitability models, the coefficients *OWN2* and *CAP* variables are positive. This shows the influence of the two variables on *GPM* is positive. Therefore, these variables influence *GPM* positively. Likewise, the coefficients of *OWN2* and *PR* variables in the *OPM* are positive. This indicated that they influences *OPM* positive. In *NPM* model; the coefficients *CAP* and *OWN2* variables are positive indicating their positive influence on the model.

The GMM results of the efficiency models indicated that in the *SE* model, *SALES*, *WKS* and *OWN2* has positive coefficients. Therefore, they positively influence *SE*. In the *NIE* model, the coefficients *CAP* and *OWN2* are positive which means that the two variables influence *NIE* positively. The *ACP* model has positive coefficients of *WKS*, *PR* and *CAP*. Therefore, the influences of these variables on *ACP* are positive.

It can be deduced from the empirical results of the three methods of analysis used in this research that the implementation of privatization policy on the SOEs in Nigeria revealed mixed findings in profitability, efficiency and the general performance.

6.2 The Contribution of the Research

Previously research assessing the influence of privatization on the privatized SOEs firm performance concentrated on such variables as *ROA*, *ROCE*, *ROE* and *ROS*; for instance

Dsouza and Megginson (1999), Jerome (2008), Tatahi and Hesmati (2009), Hakro and Akrah (2009) and Zakari *et al.* (2012). Other variables with potential attributes in determining the influence of privatization on the performance of privatized SOEs virtually received less attention. Studies conducted at different parts of the world suggested the addition of more variables or increasing the lengths of time to evaluate the impact of privatization on the performance of privatized SOEs.

Therefore, based on the suggestion made by particularly Boubakri and Cosset (1990) and Muslumov (2005), *ACP* is incorporated. The addition of *ACP* provided a better explanation of the impact of *ACP* management on the performance of privatized SOEs. On the basis of this research finding, it could be inferred that this study validates the suggestions made by Boubakri and Cosset (1990) and Muslumov (2005) that additional variable might have a significant influence on the performance of privatized SOEs. Finally, the incorporation of *ACP* and the investigation of its relation with privatization and the performance of privatized SOEs contribute to the body of knowledge. Generally the empirical result of *ACP* in this research provided an explicit explanation contrary to the implicit presumptions about the value of the variable in the previous study.

Although there is concentration of research on the performance of privatized SOEs, especially in developed and developing economies, few studies have attempted to separate and show the value of each variable. Most studies only show profitability, efficiency and or investment. An indication of the importance of the separation is seen in the finding of *GPM* and *NPM*. The mean comparison result of this two variables indicated that some companies in the sample recorded negative value of their *GPM* or *NPM*. The consequence of this is

explicit in both the panel data regression result and dynamic system GMM regression result. The two variables have negative values in the model. Therefore, the separation and the measurement of these variables in this study have contributed to the theory.

In addition most studies on the performance of privatized SOEs in both developed and developing economies used mean comparison technique of analysis, fewer studies employed OLS and less study used panel data analysis. The privatized SOEs performance studies that employed OLS and panel data analysis are mostly in the European countries and the emerging markets of the transition economies of the Eastern Europe; there is scant or less existing empirical evidence of OLS and or panel data used in Nigeria and most African countries in general.

This research used mean comparison, panel data and GMM technique of analysis. The study contributes by using these techniques of analysis and establishing their reliability and validity in the context of Nigerian.

6.3 Managerial and Practical Policy Implications

The results of this study provide sufficient evidence for confirming the impact of privatization on SOEs performance in the Nigeria. Policy makers and managers of SOEs are expected to have a better insight regarding the implication of privatization on the performance of enterprises.

Since the finding of this study explicitly indicated that privatization caused mixed improvement in the profitability of the privatized SOEs. Policy makers and managers of enterprises should be concerned with policies that enhance SOEs profitability. The SOEs managers must avoid misallocation of SOEs resources which retards the maximization of output. They should strengthen their marketing strategy in terms of marketing research like conducting survey on the acceptability of their products and more advertisement of their products. This leads to high turnover and profitability. Managers of SOEs must ensure strict conformity to the profitability enhancing measures rather than political goals that create inefficiencies and waste of resources. It could be recalled that previous study such as Jerome, (2008) and El-Rufai, (2001) stated the lack of residual claimant to profit as one of the reasons for the poor performance of SOEs in Nigeria.

Likewise, the empirical results of this research revealed that privatization has mixed impact on the efficiency of privatized SOEs. This implies that privatization can improve the efficiency of SOEs. Policy makers and managers of SOEs should review the incentive packages of the SOEs employees. The present minimum wage of ₦18,000 per month which some employers are not even paying did not match the economic reality in the country. The lack of right incentives to employees affects their productivity and efficiency. Other areas policy makers need to look into are factory safety and the enforcement of safety rules. A situation where an employee has gone to court to claim his right for the deformity sustained in the course of discharging his duty is uncalled for. Employees should be given their right as and when due. This will enhance their commitment to work and efficiency. The previous study such as World Bank (1991) stated that SOEs in Nigeria are inefficient and

problematic. Therefore, policy makers and managers of SOEs should strive hard to encourage and maintained the income efficiency policies in various enterprises.

Finally, the empirical results of this study revealed negative impact of privatization on *ACP* of the privatized SOEs in Nigeria. Previous reports, such as TCPC (1993) lamented the serious problem of recovering debts owed to SOEs. Based on this, the SOEs managers and policy makers should pursues speedy debt recovery policies and strategize more on the aspect of debt management.

6.4 Limitation of the Study

Even though contributions have been made by this research, particularly regarding the impact of privatization on the performance of privatized SOEs, there are also limitations. The first limitation is the difficulty in getting the data; particularly the pre privatization data. Most of the data sources are not organized. The financial reports especially the pre privatization financial reports are manually prepared and are not online. Therefore, hard copies ought to be sourced from individual shareholders. This problem might not be unconnected with the inherent problems with under- developed economies that include Nigeria. Therefore, values of variables must to be computed manually. Again the values of some variables in the financial statement are either anecdotal or not available. Most of the financial statements data specifically the pre privatization financial statements are not carefully prepared, organized and presented.

Similarly, the sample of this study contained only the companies that were privatized through the NSE market. Therefore, the findings are limited to the companies listed on the NSE; hence caution must to be excised in making generalization about the impact of privatization on the performance of all privatized SOEs. Likewise, most of the utility companies are yet to be privatized in Nigeria and hence were not included in the sample. Therefore, equal caution must to be taking in making the generalization about the influence of privatization on the performance of all SOEs in the country.

Since Nigeria is a low middle income country, the findings of this study is limited by the basic characteristics of such economies, namely poor prudential regulations, relatively low per capita income, weak private sector, and acute asymmetries of information, general institutional instability and embryonic capital markets. This study may not rule out the possibility of implicit influence of such characteristics on findings. Therefore, caution must to be excised when extrapolating the findings outside the sample.

6.5 Recommendation for Future Research

Due to the limitations of this study, recommendations for future studies are provided. To avoid the challenge posed by sourcing secondary data, alternative methods of sourcing data should be explored in future research. Specifically, the use of primary data may provide an alternative solution. It is expected that sourcing primary data may not posed too much problem like the secondary source of data, especially pre privatization data. A future study may adopt primary data collection depending on the situational circumstance. It is hope that

adoption of these approaches would reveal the impact of privatization on the performance of privatized SOEs.

The future research on the performance of privatized SOEs in Nigeria should also focus on all the privatized companies in respect of the method of privatization and should include utility and monopoly firms. Therefore more firms should be included in the sample. It is further recommended that the period of time covered both before and after privatization should be extended and more variables be included. It can be recalled that no firm inference can be made about the impact of privatization on *GPM* and *NPM* based on their regression outputs. It is expected that a further exhaustive assessment of the influence of privatization on the performance of privatized SOEs by inclusion of all of them in the sample in respect of method of privatization, extending the period covered and increasing the number of variables might likely robust the findings.

Finally, other avenues for future research include the assessment of the impact of privatization on consumers. In fact most of the studies conducted now are on the impact of privatization either on firm performance, ownership, employment, profitability, stock market development or other related aspect. So far, there are scant studies on the experiences of consumers about the quality, affordability and availability of goods or services produced by privatized firms.

6.6 Conclusion

The importance of assessing the performance of privatized SOEs can not be over emphasizes. The average mean results indicated that most of the SOEs recorded average mean increased after privatization. The profitability and efficiency of the privatized SOEs have all improved after privatization. Similarly, the panel data analysis and GMM results have all indicated positive influence of privatization on the performance of privatized SOEs particularly in the case of Nigeria. Therefore, government should continue to privatize the SOEs.

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