

**DISSERTATION**  
**ON**  
**A STUDY OF EFFICENCY MEASUREMENT IN BANKING SECTOR IN**  
**THE NIGERIAN ECONOMY**



Submitted to

**LOVELY PROFESSIONAL UNIVERSITY**

in partial fulfillment of the requirements for the award of degree of

**MASTERS OF SCIENCE IN ECONOMICS**

**MITTAL SCHOOL OF BUSINESS**

**LOVELY PROFESSIONAL UNIVERSITY**

**2016-18**

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## EFFICIENCY MEASUREMENT IN BANKING SECTOR IN NIGERIA

## CHAPTER ONE

## INTRODUCTION

Nigeria is intermediate income, diverse economy and developing market, with growing manufacturing, financial, service, technology, communications and entertainment sectors. Through the recent movement of the reforms going on in the Nigerian Financial sector, it will be useful to look at the efficiency of the banks in general. These restructurings (consolidation) are being enforced by the apex financial institution (CBN) as a follow up to the Basel Accord of 1998 on bank capital and the preceding overall worldwide economic crisis. The Committee Basel on banking supervision presented its in 1988 Capital Accord. The Accord concentrated on the entire amount of bank capital which is forceful in dropping the jeopardy of bank bankruptcy and the potential cost of a financial banks failure for depositors. Nevertheless, the Committee published a new Accord in 2001 and it was applied in 2004 upon agreement by members. The rationale for the new Accord is the need for more elasticity and jeopardy sensitivity. The innovative contextual intends to provide tactics which are both supplementary inclusive and more compound to risk than the 1988 Accord, while maintaining the general level of monitoring capital. Capital which was more in line with the underlying risks will allow financial organizations in manage their businesses more resourcefully. The Committee have self-confidence in that the reimbursements of a regime in which capital is affiliated more closely to threat meaningfully beat the cost, with the result that the financial system should be sound, harmless and efficient. With these reforms, it is anticipated that financial institutions in country will become financially robust, better placed to compete internationally and to finance projects. The reforms do not necessarily mean that the financial sector or banks will inevitably become more efficient. However, it does mean that the banks are now potentially more able to expand and diversify their businesses. From now these banks performances have to be assessed to know which of them are more efficient. However is usual to quantify the performance of banks using the ratios of financial. According to Yeh (1996), the foremost disadvantage of this approach is its reliance on ratios of the benchmark. These benchmarks could be ambiguous and arbitrary. Further, renowned that the ratios of financial do not capture the long –term performance, and over-all many performance aspects of such as an operations, financing and marketing, thereby covering so many features and uniqueness that need

to be manifest. Recently in some years, there is a measurement trend towards the bank efficiency using the frontier analysis approaches. Now frontier analysis, the organizations that implement healthier to a particular relative standard are separated from those that perform poorly. Such parting is done by applying a parametric or non-parametric frontier analysis to firms within the banking services industry. The parametric approach include Stochastic Analysis, Tick Frontier and the Distribution Free Approach (DFA), while the non – parametric approach is the Data Envelopment Analysis (DEA) and the Free Disposal Hull, (MolyneuxAlthunbas and Gardener1996). Similarly these cultured procedures attempt relatively to benchmark the performance of production components, but the methods change from each other mainly due to assumptions their underlying. Contrasting the parametric method, the non-parametric method or approach puts relatively little construction on the specification of the financial technology and thus it is relatively resistant from the errors of specification. Furthermore the latter approach does not make any assumptions in line with the structures and distributions of inefficiency. Although the parametric approach undertakes that part of the deviations considering to data problems or pure luck and part to managerial errors. Notwithstanding Non parametric approach have faith in that all deviations are due to inefficiency. Besides non- parametric frontiers were being estimated by using mathematical linear programming model, consequently they mark well with small samples, econometric techniques were being used to estimate parametric frontiers, with that they require moderately larger sample size to estimate the impartial coefficient of the model variables such as inputs, outputs or output prices, environmental factors, inefficiency and error term. In the view of Sowlati (2001) performance evaluation and efficiency measurement is an important issue for managers since the inherent inefficiencies can be identified and eliminated. Measuring the banks' efficiency and performance has been broadly constructed on a number of key efficiency and performance indicators (KPIs) like, productivity, asset quality, liquidity and capital adequacy. Though, each of these indicators gives an incomplete picture of the banks 'efficiency and performance. In order to have a meaningful overall measure of the bank's efficiency, a more cultured method than the traditional efficiency and performance measurement procedures is needed, hence in this study; the Data Envelopment Analysis (DEA) Approach is employed.

## **THE RESEARCH QUESTIONS**

The learning helped to find solution to the below research questions.

1. To what extent does the bank's fixed asset size have effect on its efficiency?
2. To what extent do the operating expenditures of the banks affect their productivity?
3. What is the degree of relationship between the bank performance and its

Efficiency?

4. To what extent does the bank's efficiency affect their productivity?

## **THE RESEARCH OBJECTIVES**

The main broad objective of this research is to measure the efficiency measures of Nigerian banking system. Other specific objectives of this research include:

1. To determine the extent the banks fixed assets affect their efficiency.
2. To find out the effect of the banks' operating expenditure and deposit size on their efficiency.
3. To find out the extent to which the banks' productivity affect their profitability.

## CHAPTER TWO

**Literature review.**

S.No	Title	Concept	Author	year	Methodology	Findings
1.	Determinants of Bank Profitability in Nigeria: Using Camel Rating Model (2001 – 2010)	The overall concept of the paper is to understand the effects of the asset quality on the banking sector in Nigeria.	Echekoba, F.N., Egbunike, Chinedu Francis, Ezu Gideon Kasie	2014	Secondary method, Used SPSS	The paper find out that quality of the asset, efficiency of management, capital adequacy, having a important earnings impression on the profitability banking industry in country while it clearly shows that significant liquidity has an influence on the profitability of the banks, its recommended that financial institutions should keeps more properties

						that can be covered in asset form are easily in other meet up the mandatory obligations of financial and keep customers/investors confidence in the system for proper profit making of the banks.
2.	Determinants of efficiency performance in banking sector in Nigeria: a DEA approach	The overall concept of the paper is to identify the determinant of efficiency performance by using 19 selected banks in Nigeria: by adopting Data Envelopment Analysis (DEA) approach.	P. O. Eriki, Osagie OSifo	2015	Secondary method of data collection, used DEA, VRS, CRS	The overall findings of the paper revealed that bank performance efficiency are positively related to the bank size and bank age, while board ownership and board independence structure are negatively related to the

						bank performance efficiency in Nigeria. So there for strong efficient resources is recommended.
3.	Nigerian banking structure and its effect on banking performance	The overall concept of the paper is to measure the structure of the market and opposition in the combined Nigerian financial sector and identify the effect of financial structure on bank performance	Ugwunta David Okelue M.Sc, Ani Wilson Uchenna Ph.D, Ugwuanyi Georgina Obinne Ph.D, Ugwu Joy Nonye Ph.D	2012	Secondary method using Time-series regression analysis was adopted to a ten-year data period (2001-2010)	Overall important findings of the paper is that the Nigerian banking industry is structurally oligopolistic in nature and the market attentiveness certainly and significantly impactful on financial industry performance. So there for recommended that market concentration is the major factor

						of financial sector profitability.
4.	Intermediation bank in Nigeria: performance, growth and competitiveness of banking sector, 1990-2010	The overall paper is to showcase the growth and intermediation of banking industry and analysis of bank performance for the period of 1990 to 2010 within framework of FRA.	Enendu, C. I.; Abba, M. A.; Fagge, A. I.; Nakorji, M.; Kure, CBN.	2013	Secondary method of data collection has been used and ANOVA test was also been adopted	The outcomes of the study revealed that the total asset of the banking sector grew by more than 20,000 percent between 1990-2010 as a result in terms of growth, while bank branches number has grown from 1,000 in 1990 to over 5,000 in 2010. It also indicated reform policies improved intermediation efficiency across the different policy period.
5.	Measuring the banking system performance a	The overall concept of this paper is to minimize the	Dang-Thanh Ngo	2012	Secondary method of data collection	The study of the research revealed and suggest that



	case study of Vietname 1990-2010	input while output are constrained using the data envelopment Analysis toward Measuring the performance of banking industry.			has been adopted and data envelopmen t analysis model was used.	knowing decreasing performance is through the time as the size of the banking sector increases the marketability of the financial sector and more unshackle and at some point the whole world and regional economics are challenging in nature.
6.	Efficiency performance of Nigerian banks a post 2004 banking reforms evaluation.	The overall concept of this paper is to identify the extent to which fixed asset size and operating expenses of the Nigerian banks affect their efficiency, and to give proper identification of the correlation	OMANK HANLE N ALEX EHIMAR E.	2013	Data Envelopmen t Analysis Model(DEA ) has been used and secondary data remain the method adopted	The overall findings of the paper revealed that Guarantee trust bank was the most performing efficient bank having the least reduction inputs(4.93) which was needed to produce the

		that exist between banks deposit size and profitability affecting their efficiency.				same amount of output. However the worst performance are Afribank, Unity bank and united bank for affrican for not having full efficiency under constant return to scale CRS, VRS and SE.
7.	Capital Structure, Profitability and liquidity Evidence from the Nigerian Banking Industry.	The overall concept of this paper is to checkmate and understand the capital structure, profitability and liquidity evidential banking system in the country at large.	Sebastian Ofumbia UREMA DU	2012	Secondary method was also adopted and were been analyzed using auto-regressive distributed lag (ADL) model and descriptive statistics.	The overall findings of the paper is that there is positively influenced in terms of cash reserve ratio, liquidity ratio and income tax corporate also with a negatively influenced of bank credit to the domestic economy,

						saving deposit with the apex financial body, gross national savings that is proxy for deposit with the central bank, inflation rate and foreign private investments on financial sector profit.
8.	An Analysis of Market structure and competitiveness in the Nigerian banking System (2001-2013).	The overall interest of this paper primarily is to examine the nature of banking competition in Nigeria from the broad Macro Economic perspective.	SAIBU Olufemi Muibi	2013	This paper used secondary data and adopted the Panzar-Rosse and Lerner index methods.	The overall findings of the paper revealed that over the time period beneath reflection, Nigeria banks shown income tax monopolistic competitiveness behavior. Precisely the H-statistic from which was the found estimate

						to be positive (0.511) and statistically altered from zero unit.
9.	The Challenges of financial Sector Reforms in Nigeria: An Appraisal	Primarily this paper was design to inspect the financial sector reforms in Nigeria 1958 to date, and identify the challenges posed as well the country financial system.	Asekome , Mike Ozemhok a, Aihie John Abieyuw a	2014	The Secondary method of data collection was used effectively.	The paper revealed that in most of the financial sector reforms in country are sensitive rather being proactive and directed issues which arose from time to time. So there for it endorses the need for proper strengthen supervisory and monitoring capacity of the central bank through capacity building and training for Central bank to

						strengthen their effectiveness.
10.	The Pattern and Trends of Capital Structure and Performance of the Nigerian Banks.	Overall concept of this paper is to investigate the actual trend and pattern of capital performance structure of financial organizations in Country.	Philip Olawale Odewole, Rafiu Oyesola Salawu	2016	Secondary Method were also used and measure of central tendency which pointed in the scale of measurement of a distribution.	The paper revealed that the banks display 75.2% short term financing and indicated that the Nigerian banking sector heavily relied on short term external finance. It also showed that the critical reassessment of the banks by central bank was as a result of 2008 and early 2009 interbank market collapse.
11.	The Nigerian Financial Market And The Trials Of Information Technology-	This overall paper pursues to observe the financial market in the country and the	Dr. Uche Basil Onwe	2013	So also here Secondary data method was also been used.	The paper revealed that through timely delivery of financial services and

	Based Operational Services	encounters of financial intermediation using ICT-based services				cost reduction, information technology has played a vital role in that. However the paper noticed that most of financial institutions of the country are facing the strong competition both within and outside.
12.	Experimental analysis of structure- conduct- performance paradigm on Nigerian banking Sector.	The overall concept of this paper is to scrutinize the structural conduct performance paradigm in the financial sector of Nigeria.	Mustapha Bello and Wakeel Atanda Isola.	2014	Secondary method using panel data.	The paper revealed that it established the existence of structural performance hypothesis within the Nigerian banks and replicates the high emphasis by the regulatory arm on the further restructuring of

						the financial institutions of the economy by the central bank of Nigeria in terms of lively ownership and capital base.
13.	Determinants Of Capital Structure Of Banking Sector In Gcc: An Empirical Investigation	The primary aimed of this paper is to identify elements of capital structure in a sample of commercial banks itemized on the Gulf Cooperation Council (GCC) stock markets.	Abdullah AL-Mutairi, Kamal Naser.	2015	Secondary method were been used.	The paper revealed that most of the financial institutions asset in GCC is financed by debt which represent more than 80 to 85% of the capital of the bank and that liquidity and profitability affect the institutional capital structure decision.
14.	Central Bank Governor of Nigeria: Banking Reform and it	The overall concept of this paper is to fetched about a new approach to	Sunusi lamido Sunusi.	2012	Secondary method also been adopted.	The paper indicated that it inspired the policy makers in designing

	impacts on the Nigerian economy.	the industry as financial sector set in place best practices in an areas of risk management and corporate governance.				proactive micro and macro economic management for giving an appropriate solution in solving emerging economic issues in both developing and developed countries.
15.	Contributions Of Banking Sector In Economic Growth: A Case Of Pakistan	Overall concept of the paper was to identify the key areas toward the contributions of banking industry in economic growth.	Dr. Aurangzeb	2012	Secondary method and multiple regression analysis was also adopted.	The overall findings of the paper revealed that using the granger causality test confirms the bidirectional causal association of deposits, profitability and advances with economic growth having unidirectional causal relation



						of interest earnings and investments with growth of economic run from the investment and interest earning toward the economic growth.
16.	Commercial Bank Credit and Its Contributions on Manufacturing Sector In Nigeria	The overall concept of the paper was to identify how the credit of commercial banks can influence manufacturing sector in Nigeria keeping in mind it macro economic contributions.	A OGAR, S.E. NKAMA RE & CHARLES EFFIONG	2014	Secondary data was also adopted using the multiple regression analysis.	The overall findings of the paper indicated that commercial banks credit had an important relationship on the industrial sector and it was suggested that there are sufficient and available credit due to the industrial sector in Nigerian economy with a reasonable and affordable interest rate.

17.	Recapitalization and Banks Performance in Nigeria.	This paper examined the influence of previous recapitalization in the financial sector on the performance of the banks in the country with the aim of finding out if the recapitalization is of any benefit	Adegbaju A. A and Olokoyo F.O (MRS.)	2008	Secondary method was also adopted together with an analytical techniques.	The overall findings of the paper revealed that the return on equity, return on assets, yield on earnings their mean of key profitability ratio of them were important statistical difference between the mean of the banks, with that it was suggested that banks should improve on their funds in such a way that they can create more income on their asset in other to improve their reoccurrence on equity.
18.	Pure and Scale Efficiency	The overall concept of this paper was to	Fadipe Moses, Arulogun	2015	Secondary method and data	The overall findings of the paper indicated

	Change Consideration of Banking Industry in Nigeria	evaluate the pure scale efficiency of banking industry and measure the relatively efficiency change of financial sector.	Olaleye Ola		envelopmen t analysis (DEA) was adopted.	there is slight relative ability of banking operations to converts inputs into output looking at the percentage change in the average level of the pure efficiency charge had gone up in a slightly manner from 0.99 in 2003 to 1.001 in 2011 so also reverse is the case for the scale efficiency change.
19.	Banking Sector Credit and Economic Growth in Nigeria: An Empirical Investigation	The overall concept of the paper was to scrutinizes association amongst banking sector credit and economic growth in	Aniekan O. Akpansu ng1 and Sikiru Jimoh Babalola	2008	Secondary method and Granger causality test was also been done.	The overall findings of the paper revealed that the private sector credit impacted positively on the growth of the economic and development

		Nigeria over the period 1970-2008.				over the period of study and also the lending rate that is the interest charged on lending its increase the economic growth. With that it suggested there should be need for financial market development that will favor more credit to private sectors in other to arouse economic growth.
20.	Contributions of Financial Sector Reform to the Economic Development in Nigeria.	Overall concept of the paper to scrutinized the contributions of financial sector to the economic performance and development of the country and	Adewuyi, I. D.	2006	Secondary method was also been adopted.	The overall findings of the paper indicated banks are the effective mechanism for assembling financial resources and allocating same

		to highlighted banks as efficient mechanism for assembling financial resources and allocating same for productive investment of the country.				for product investment and also highlighted that banks plays a key role in enabling economic growth and financing developmental projects, infrastructure, agriculture and industry.
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## CHAPTER THREE

### RESEARCH METHODS

In this section we describe the methods hired in the present study. It displays the procedures for data collecting and analysis. The models from which answers to questions raised in this study are obtained are also presented. In line with the field of management and social sciences four main types of research methods are commonly utilized, Conversely, the choice of which to use depends on the researcher's focus. So I focused on secondary source due to the nature of the topic to which it required some financial statement of banks, published papers on that and data from the central of Nigeria of Nigeria and also the annual report of all the commercial banks of the country.

**References:**

1. IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 16, Issue 9. Ver. VI (Sep. 2014), PP 44-50 [www.iosrjournals.org](http://www.iosrjournals.org)
2. International Journal of Economics, Commerce and Management United Kingdom Vol. III, Issue 2, Feb 2015 Licensed under Creative Common Page <http://ijecm.co.uk/> ISSN 2348 0386
3. Journal of Economics and Sustainable Development [www.iiste.org](http://www.iiste.org) ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online) Vol.3, No.7, 2012
4. Occasional paper no-48 financial sector division central bank of Nigeria... <https://www.cbn.gov.ng/>
5. Journal of Applied Finance & Banking, vol.2, no.2, 2012, 289-312 ISSN: 1792-6580 (print version), 1792-6599 (online) International Scientific Press, 2012
6. A ph.d thesis submitted to the department of banking and Finance Covenant University, Ota, Ogun State of Nigeria.
7. International Journal of Academic Research in Accounting, Finance and Management Sciences Volume 2, Issue 1 (2012) ISSN: 2225-8329
8. SAIBU Olufemi Muibi Department of Economics, University of Lagos Akoka Lagos, Nigeria Email: [osaibu@unilag.edu.ng](mailto:osaibu@unilag.edu.ng) Phone: +234 (0)8033518639
9. International Journal of Business and Social Science Vol. 5, No. 7(1); June 2014
10. International Journal of Finance and Banking Research 2016; 2(3): 72-83 <http://www.sciencepublishinggroup.com/j/ijfbr> doi: 10.11648/j.ijfbr.20160203.13 ISSN: 2472-226X (Print); ISSN: 2472-2278 (Online)
11. Kuwait Chapter of Arabian Journal of Business and Management Review Vol. 2, No.6; Feb. 2013
12. The Empirical Econometrics and Quantitative Economics Letters ISSN 2286 – 7147 © EEQEL all rights reserved Volume 3, Number 3 (September 2014), pp. 24 - 34.
13. Asian Economic and Financial Review ISSN(e): 2222-6737/ISSN(p): 2305-2147 journal homepage: <http://www.aessweb.com/journals/5002>
14. Lecture by Mr Sanusi Lamido Sanusi, Governor of the Central Bank of Nigeria, at the University of Warwick's Economic Summit, Warwick, 17 February 2012.

15. Economics and Finance Review Vol. 2(6) pp. 45 – 54, August, 2012  
ISSN: 2047 - 0401 Available online at <http://www.businessjournalz.org/efr>
16. Research Journal of Finance and Accounting  
www.iiste.org ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online) Vol.5, No.22, 2014
17. African Economic and Business Review Vol. 6 No. 1, Spring 2008. ISSN 1109-5609 ©  
2008 The African Education and Business Research Institute, Inc.
18. Quest Journals Journal of Research in Business and Management Volume 3 ~ Issue 8  
(2015) pp: 01-06 ISSN(Online) : 2347-3002 [www.questjournals.org](http://www.questjournals.org)
19. CBN Journal of Applied Statistics Vol. 2 No.2
20. Adewuyi, I. D.(2006). Department of Banking & Finance The Federal Polytechnic Ede,  
Osun State, Nigeria E-mail: adewuyione@yahoo.com