SAVINGS AND COMMERCIAL BANKS’ PERFORMANCE IN NIGERIA: A STATISTICAL ANALYSIS

by

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ABSTRACT

This study examined the role of savings in commercial banks’ performance in Nigeria. The objective is to assess the contribution of savings to domestic credit to the private sector, to explore the effect of savings on money supply and to examine the impact of savings on deposit rate.

The research methodology involved sampling tools development and choice of variables used as measures of banking performance. The variables include domestic credit to the private sector, ratio of money supply to GDP and ratio of deposit rate to GDP, each of which serves as response variable while savings deposit in commercial banks represent general savings and serve as the explanatory variable.

Descriptive statistics was first considered so as to observe the statistical behaviours of the variables. Following the descriptive statistics is the statistical analysis which was carried out using the ordinary least squares technique which involved the use of regression on the measures of financial deepening, assuming linearity in the model.

Results from the analysis showed that savings increased domestic credit to the private sector during the period under review and is significant. Increase in the aggregate savings also increased money supply in the system and is equally significant. Deposit rate too was found to have a significant positive relationship with the aggregate savings.

In conclusion, the findings indicated that savings has a positive impact on each of the banking performance measures and is significant in all the cases which shows that savings is fundamental to economic growth through the efficient functioning of the financial system.
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DEDICATION
This research project is dedicated to the glory of the Almighty God who has manifested himself
to me time and again as God of the eleventh hour that makes things beautiful in his own time and
also dedicated to the memory of my dearest mother, Mrs. Aduke Akinola.
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ACRONYMS

ANOVA  Analysis of Variance
CBN    Central Bank of Nigeria
CPI    Consumer Price Index
DCPS   Domestic Credit to Private Sector
DGDP   Deposit to GDP ratio
GDP    Gross Domestic Product
GNS    Gross National Savings
MFIs   Microfinance Institutions
MS     Money Supply
OLS    Ordinary Least Squares
SPSS   Statistical Package for Social Scientists
CHAPTER ONE
INTRODUCTION

1.1 Chapter Overview

Presented in this chapter is the background of the study, statement of the problem, objectives of the study, research questions, justification of the study, the scope of the study and research methodology.

1.2 Introduction

Commercial banks have been widely acknowledged for their significant role in the economy particularly in funds mobilization for growth. Ideally, growth tends to be easily achieved through the channeling of savings towards investment activities. Improvement in the financial sector follows from the financial sector development. This arises through effective financial intermediation, a well-diversified opportunity, improvement in the quality of information and better avenues for prudence in lending and monitoring to take place (Ewetan & Okodua, 2013; Alege & Ogunrinola, 2008; Akinlo & Egbetunde, 2010; Ewetan & Ike, 2014). While savings remain crucial to economic development, the role of the financial sector in generating the required level of savings becomes vital.

The role of banks in intermediation remains a catalyst towards a nation’s development in the sense that investment funds are mobilized from a surplus end to the deficit end. Moreover, other essential roles of fund mobilization, allocation of credit, the system of payment and settlement including monetary policy implementation cannot be left out and undoubtedly can efficiently increase the performance of the banks (Mohammed, 2012). On this basis, deposit money banks tend to mobilize savings and extend loans and advances to their respective customers taking into
consideration profitability, liquidity and safety principles (Okoye and Eze, 2013). Mobilization of savings is critical towards building an inclusive growth in the financial sector even though most of the funders’ attention is still on making credit available through accessibility, rather than savings. This is based on the idea that credit creates a direct link to increasing income. Within the micro-framework, savings provide security of funds, liquidity, positive real return and convenience which subsequently meet the various needs of the savers.

Savings, in general, are a source of funds with low-interest costs in comparison with other commercial funds (Bass & Henderson, 2000). An important role of savings is to, therefore, support and facilitate commercial banks’ role in making credit available to the end users which in turn transforms to domestic investment. Consequently, commercial banks’ performance is further enhanced and more confidence revolves around the banking business environment.

1.3 Problem Statement

While the role of savings in commercial banks’ performance is acknowledged, sub-Saharan African countries of which Nigeria is no exception are still not without challenges in savings mobilization. The belief is that third world countries often face financial sector challenges in the provision of incentives for individuals to save, thereby preventing their roles as intermediaries to convert savings into credit for borrowers. Hence, this impedes the banking sector performance expectations. The reduced savings syndrome phenomenon is multidimensional with complex structure believed to be influenced by institutional type, governance and organizational structure, quality of savings products and the technologies in use and the regulatory environment. These problems may be viewed regarding both internal and external factors. The external factors include the regulatory environment such as policies on foreign exchange, the level of
competition with other savings mobilization institutions (like the insurance companies, employees savings schemes), level of poverty and unemployment (Maimbo & Mavrotas, 2003); while the internal factors involve internal performance management control measures which include (governance structures, policies, performance standards and incentives). Hence, this study seeks to analyze the role of savings in the performance of commercial banks in Nigeria.

1.4 Objectives of the study

This study aims to evaluate the role of savings in commercial banks’ performance in Nigeria through the following specific objectives:

i. To assess the contribution of savings to domestic credit to the private sector

ii. To explore the effect of savings on money supply

iii. To examine the impact of savings on deposit rate

1.5 Research Questions

The following questions are relevant to the study:

i. What is the contribution of savings to domestic credit to private sector?

ii. What is the effect of savings on money supply?

iii. What is the impact of savings on deposit rate?

1.6 Justification of the study

Financial capital flows and foreign aid to developing countries are expected to ease credit availability, but ironically, credit constraints have not been reduced to expectations. Hence, on
this basis, this study attempts to explore further ways of mobilization of savings which would facilitate domestic investment for economic growth. Moreover, while emphasis has been laid on general savings mobilization in financial institutions such as insurance companies, employees saving scheme, etc., this study concentrates explicitly on savings mobilization efforts of commercial banks in Nigeria and exploring this on their performance. It, therefore, evaluates the behaviour of commercial banks as a unit of the financial institution in savings mobilization and how this contributes to their efficiency, particularly during the economic reform era. Thus, evaluating this essentially complements the role of the financial reform policy of the economy. This brings out the motivation for this study.

1.7 Scope and limitation of the study

Although, there are many financial institutions the research focuses on the commercial banks in existence in Nigeria during the period 1990-2015. This period is chosen to ensure a wide range of data coverage. Besides, this period covers explicitly the banking reforms era in Nigeria that provided more confidence within the banking sector. Another limitation that confronted this study is inaccessibility of relevant materials. However, the library and the internet were used to check this challenge.

1.8 Research methodology

The research methodology follows from a theory among several theories which relate to savings and banks’ performance. The research methodology involves use of sampling tools and development of choice of variables.
The variables used as a measure of banking performance include credit to the private sector, liquidity among others; each of which serves as response variable while savings deposit in commercial banks represent general savings and serve as the explanatory variable.

Descriptive statistics is first considered so as to observe the statistical behaviours of the variables such as the mean, median, and standard deviation. Statistical techniques shall be carried out to establish the relationship between the variables, and this involves the use of stepwise regression.

In a more compact form, assuming linear relation, the models specifying the relationship are formulated as follows:

\[ bp \approx f(sav) \]  

Equation (i) is the general functional form and describes the relationship between bank performance \((bp)\) and \(sav\) (savings deposit). Bank performance may be disintegrated into domestic credit to the private sector \((dcps)\), the ratio of money supply to GDP \((ms)\) and the ratio of deposit rate to GDP, \((dgdp)\).

The ratios are measures of financial deepening. The disaggregation of equation (i) gives the following estimable equations:

\[ dcps \approx a_0 + a_1sav + e_1 \]  

\[ ms \approx b_0 + b_1sav + e_2 \]  

\[ dgdp \approx d_0 + d_1sav + e_3 \]

Note that \(e_i\) where \(i = 1,2,3\) is the error term that models the deviations from the linear equations.
CHAPTER TWO
LITERATURE REVIEW

2.1 Chapter Overview

This chapter presents the literature reviewed on savings in line with the objective of the study. Among others, it offers the concepts and features of the banking system, structure, and efficiency, savings and savings mobilization, the role of financial institutions in savings mobilization, mobilization of savings in rural areas, theories of savings, some relevant hypothesis such as the relative income, life-cycle, and permanent income hypothesis. The review further covers some theories such as the liquidity of banks, commercial loan, shiftability and anticipated income theories.

2.2 Concept and features of the banking system

Commercial bank sector performance remains highly essential and forms the backbone of an economy. The workings mechanism serves as facilitators in the achievement of sustained economic growth and the provision of efficient monetary intervention. A financial system known to be strong has the capacity of promoting investment through foreign productive business, savings mobilization, dynamic allocation of resources and smooth flow of trade of goods and services.

According to (Mc Kinnon, 1973; Levine, 1997) numerous studies report that financial system efficacy in the reduction of information and cost of transaction plays essential roles in the determination of the rate of savings, the decision to invest, innovation in technology and of course economic growth rate.
An essential feature of banking is that it renders services to the people in financial matters with this role extending on a daily basis. Banking has become a significant feature in the financial system in Nigeria just as it is in other countries. For example in a country such as Nepal, it accounted for more than 70% of the assets belonging to all financial institutions (Poudel, 2005). Accordingly, profitability and soundness of the banking sector lies in its enduring capacity in adverse upsets and adds to performance in the financial system (Athanasoglou et al. 2008)

A banking system with a competitive nature tends to promote efficiency which is vital for economic growth; however, market power appears necessary for banking sector stability (Northcott, 2004). The importance of commercial banks can be seen through its significant share of contribution in the economic activities of a country. For example, in Nepal, the function of the commercial banks has been enhanced for the sustenance of necessary need of the service sector and the economy in general (Economic survey, 2008)

According to Sun (2011), an essential approach for enterprises which gives incentives and restraint in their operators is the performance evaluation. Performance evaluation of commercial banks is often related to the efficient use of the bank assets, shareholders’ equities and liabilities, revenue, and expenses. In this case, depositors, investors, bank managers and regulators find performance evaluation highly significant.

In evaluating a firm’s performance, the financial ratio method is usually employed. The reason is that it gives a simple description about the firm financial performance compared to the one recorded previously and so this can help to improve its performance management (Lin et al. 2005); meanwhile financial ratio based on CAMELS framework are related to capital assets, management, earnings and liquidity considerations.
There is a rapid change in the trend of commercial banking as competition is getting stiffer and this necessitates banks need for every competitiveness and efficiency through performance improvement. Avkiran (1995) asserts that the financial performance of commercial banks and other financial institution has been measured using financial ratio analysis benchmarking, measuring performance against budget, all combined or a mix of these methodologies.

According to Gopinathan (2009), financial ratio analysis can spot better investment option for investors in the sense that the ratio analysis as a measurement of varying aspect of performance and therefore analyze fundamentals of a company or overviewed institution.

Ho and Zhn (2004) assert that company performance evaluation focuses on operational effectiveness and efficiency, which tends to influence the company survival directly.

According to the empirical results of these researchers (Razahat, 2011 and Tarawneh, 2006) company with better efficiency may not mean better effectiveness always. However, the ranking of banks differs as the financial ratio changes (Alam et al., 2011).

In the view of Berger & Humphery (1997), an idea of measuring bank’s performance is to separate banks that perform well from those that are below expectation or perform poorly. It is indicated that through evaluation of the performance of a financial institution, government policy is well informed through assessment of the effect of deregulation, mergers and market structure on efficiency. Regulators of the bank screen banks through evaluating banks’ liquidity, solvency, and overall performance. This is to enable them to intervene as the need arises and to possibly assess the potential for the problems emanating (Casu et al., 2006). At the micro-level, the performance measurement of banks helps to improve managerial performance through
identification of the best and worst practices that are associated with high and low measured efficiency.

Banks make a comparison of the performance of their peers and evaluate the trend of their financial performance over time. Tarawneh (2006) by his study measured the performance of Oman Commercial banks from financial ratios and made the ranking based on their performance.

2.3 Banking Structure and Efficiency

In recent times, the global crisis has affected financial systems activities significantly including that of banking institutions; with emphasis on fragility. The intense competition between banks and significant structural changes in the way they operate point out precisely the relevance of bank’s cost efficiency. On a general note, cost efficiency is the ratio of the minimum cost which makes it possible to attain a given production volume to the price incurred (Maudos et al., 2002). It follows that increasing the efficiency in an environment brings about stability and hence provide a strategic advantage over competition. Also, an efficient banking system can have a positive influence on economic growth (Ferreira, 2012; Koetter and Wedow, 2010; Hasan et al., 2009). Given the notion that most of the commercial banks are being confronted with higher risks due to the global financial crisis, the relevance of the banks that adopted a traditional model of activity such as cooperative banks and savings banks are on the increase. Hence, Bulbul et al., (2013) demonstrate that the savings and cooperative banks have performed better than the vast private banks in the crisis and therefore safeguarding the strengths of these types of banks becomes highly essential. In the submission of Birchall (2013), customer-owned banks appear more stable and more efficient than the private banks and hence provide an alternative to the commercial banks.
Within the banking systems, the institutions follow different business models, organizational forms, and ownership structures. Alongside with commercial banks which adopt the universal banking model, a substantial number of credit institutions defined by different corporate types and ownership structures, i.e., cooperative banks and savings banks play a relevant role in the banking sector.

Moreover, Ayadi et al., (2010 p.6) categorize banks into two broad groups: these are stakeholder value banks and shareholder value banks. Here it observed that the banks’ bottom line objectives and the degree to which profit maximization is a central focus of their business models form a fundamental distinction. The consideration is that cooperative banks and savings banks reflect “dual bottom line” institutions.

The cooperative banks and savings banks have a relevant role to play in the banking sector, particularly in Europe. Even though savings banks were created initially to facilitate social inclusion, they also revolve into specific, universal banks and hence tend to compete with the commercial banks for households and small and medium-sized enterprises. The organizational structure differentiates the savings banks from the commercial banks, and this is a significant feature. In Germany, saving banks are referred to as public entities with no owners in the business sense; the civil authorities remain responsible for the activity of these institutions (Clarke, 2010). In Norway, Denmark, and Sweden, savings banks are structured in the form of independent foundations which implies that they do not have stakeholders or traditional owners.

2.4 Savings and savings mobilization

Savings is an attitude of refraining from consumption or what may be called a deferred consumption; they may be in cash or physical products which may have been set aside for future
use. Therefore savings mobilization is a way to keep some money or physical product to generate investment opportunities (Mpuga, 1999). According to Keynes, it is the left over when the cost of a person’s consumer expenditure is subtracted from his amount of income.

Savings is fundamental to sustainable economic development globally. Savings are by far the most frequent source of funding to microfinance startup and expansion. They also enable households to build for the future and better prepare for unexpected emergencies. The profit from savings mobilization by Woccu credit union in Latin America has demonstrated that lower-income people will substantially increase their savings deposit when provided with convenient service, market returns, and security for their savings. The millions of people throughout the region lack access to safe, reliable and comfortable savings services.

Issue of domestic savings mobilization for development purposes has been recognized by researchers. According to United Nations (1951), the primary source of increased local capital formation must be increased savings, and as such, there should be an extension of savings institutions and measures which involve taxation and evaluating capital transfer from unproductive to productive ends.

People in rural and other low-income communities need adequate guidance and encouragement before embarking on savings. In rural communities, savings are made through traditional credit rotation groups, or purchase of domestic animals (goats, pigs, chickens or cows).

Every micro-enterprise can be lifted through the inflow of capital or funds which may be owner's money or a loan. When a loan is used, it is someone else who has done the saving. Micro enterprises, like other businesses, convert savings into investment, in the generation of wealth.
2.5 Financial institutions and their role in savings mobilization

Financial institutions mainly depend on savings for their continued existence. In this case, savings are transformed into deposits, which may either be normal savings or time fixed deposits and hence constitute the bulk of their working capital, if on lent. By implication, the core resources used in financial institutions are comprised of deposits from the public, which is one of their primary sources of funds. From this, financial institutions have a task of attracting customers to keep deposits with them, and this idea is known as savings mobilization. It includes tapping the savings the public may hold by the provision of several assets in which people can save, (Mpuga, 1999).

Financial institutions provide a system where savers deposit their money and borrowers can access such funds. This ensures an efficient transformation of mobilized funds into real productive capital. Financial institutions comprise of both the formal and informal sector.

The informal sector does the mobilization of savings and channeling credit to the lower income group in both the rural and urban areas, (Dmitri et al., 1991). They play a significant role in savings mobilization for example microfinance institutions though are not allowed to mobilize deposits; they fill the gap left by formal institutions (Kasekende, 1998). The formal sector includes the central bank, commercial banks, credit institutions, development banks and so on.

For savings mobilization to be on the increasing trend, this may correspond to having more internally generated funds that can be invested be it in housing, microenterprise, and small business loans and this plays a vital role in the success of financial intermediaries.

Savings is a foundational pillar of an inclusive financial system. Savings contributes to financial inclusion of the client, microfinance institutions, and industry levels. Savings services strengthen
the finances of low-income households, enhance the base of funding of microfinance and are the basis for a competitive, efficient and sound microfinance industry, (Alliance for financial inclusion policy/formalizing micro savings, 2010).

On a micro level scenario, there exists an extensive body of academic research to explain how a well–developed financial market contributes to economic growth in a country, an industry and in individual firms, (Levine, 2005). Further, it shows that financial development reduces income inequality in general, has a disproportionately positive effect the poor's income, and it promotes to poverty alleviation, (Beck et al., 2007).

Micro Finance Institutions (MFIs) that intermediate deposits are the best positioned for sustained innovation and growth. MFIs which fund growth by mobilizing local savings as regulated financial intermediaries have derived benefits from deposit-based funding in at least three ways. In the first case, deposits tend to be more stable and scalable funding source relative to other options. Microcredit organizations typically face challenges with wholesale funding related to finance costs, term structure, currency risk, administrative effort and ultimately getting enough capital to fund growth that keeps up with demand. Also, the recent global financial crisis has demonstrated the liquidity risks associated with over-dependence on foreign debt funding. In addition to the stability of savings in most markets, it’s also a less expensive funding source.

The second benefit can be shown through incentives that drive an MFI’s approach to growth and expansion. Deposit based institutions link their asset growth to deposits, and therefore growth is based on service to savers and the perception of savers of the integrity of MFI. These MFI’s tend to be disciplined, service-oriented and cautious about their reputation. Deposit funding also links
the MFI evolution to economic realities since MFI’s can only grow if they are successful in intermediating sufficient market demand for savings and credit.

Finally, deposit-based MFIs enjoy customer loyalty since customers that save in an institution have a sense of trust and ownership that credit clients don’t necessarily have. For some customer’s savings may be the first step to accessing credit and other services later on, (AFI policy/formalizing micro-savings, 2010).

To increase savings, policies should be focused on the significant determinates of savings in the economy, (Mukwanason, 1994). The mobilization of small and micro savings responds to the demand of the poor and is a commercially viable source of funds. It should be noted that successful savings mobilization requires a macroeconomic environment that is conducive. And thus financial institutions need to put in place strategies that are dynamic and aggressive to encourage savings by enhancing public confidence, provide cost-effective schemes, and most importantly they must be seen by the public especially to the concerned not only with balancing sheets but promoting peoples welfare and prosperity (Bagonza, 2001). It’s important to understand why people save, in doing so financial institutions will create products that are suitable and complement the needs of those who save (Fin scope Ug, 2009)

Communities in Uganda have always raised capital for farming, petty trading and other income-generating activities through savings mobilization. It is this traditional arrangement that modern microfinance institutions are trying to modify in the mobilization of savings. Over the last decade, microfinance institutions have found those poor households are interested in a variety of savings services and products. Deposit services allow the low-income family to save for large expenses like dowries, or school fees. It also helps them accumulate funds for future investment
such as purchasing a cow or prepare for periods such as rainy periods when they may have little or no income; this is according to the microfinance experience with savings mobilizations and that they are two reasons why microfinance should mobilize savings. Locally sourced savings are potentially the largest and the most immediately available source of finance for some microfinance institutions, and there is a vast demand for institutions savings services at the local levels.

2.6 Mobilization of savings in the rural areas

According to ‘savings mobilization as a financial instrument and its relevance to the poor’ by Marguerite Robinson, 2010, the following preconditions are needed by the M.F.Is for savings mobilization. They are grouped into outside M.F.Is and within the M.F.Is control.

Outside MFI Controls are controls that are found outside MFI regulation, and they include enabling macroeconomic and some degree of political stability (no hyperinflation or continuing to serve warfare), appropriate regulatory environment, public supervision. Within M.F.I control; these are controls that operate within the microfinance institutions, and they include a good track record of responsible ownership, effective governance, consistently proper management of funds and allocation of full-time high level committed management plus a financially sound with a high rate of loan recovery and consistently good returns.

The scheme of financial intermediation can affect economic performance and growth directly through the role it plays in savings mobilization. According to (Winiwiski, 1999) financial instruments play a vital role in facilitating savings because of appropriate tools.

Savings play a crucial role in financial management strategies of the poor. Deposit facilities make it easier for indigent clients to turn small amounts of money into ‘useful lump sums,’
enabling them to smooth consumption and mitigate the effects of economic shocks (Rutherford, 2001). In the same vein, secure savings also can provide a measure of independence to socially and economically susceptible individuals, especially women and children. Dissimilar from credit, savings benefits are not limited to just those who are active financially. Although important research has documented the benefits of savings to the poor, the microfinance sector remains focused mainly on credit delivery. Funders may not realize how critical asset-building policies and that savings mobilization can bring many benefits to the indigent clients and microfinance providers (e.g., stable funding and protection from the foreign exchange risk.

For financial institutions to mobilize domestic savings, the following vital principles remain fundamental and serve as operational guidelines and tools to be utilized by all microfinance institutions for sourcing savings. Preconditions for savings mobilization include the following:

Legal deposits: Under this condition, the crucial questions that readily come to mind relate to whether or not there is an appropriate legal framework in place to identify which institutions can receive deposits and what recourse savers have to recover their deposits. Also, whether or not there is an authority to capture savings and whether or not a charter or laws are established and effective system of supervision is in existence.

External analysis: Under this, one has to consider whether or not there is a market for savings products in a geographic location and whether or not there are institutions which capture savings. Also, one has to look at Prudential discipline which implies that understanding the minimum standards and so forth.

The following procedures for efficient savings mobilization would benefit every financial institution especially M.F.Is in collecting savings and they are the completion of savings
registration form with passport size photographs and payment of fees, maintaining savings accounts for individual and group, issuances of savings passbooks and the opening of ledger records, issuances of receipts for every deposit within their means and lastly flexibility of deposits time and withdrawal rates.

2.7 Theories of Savings

Economists have developed three major theories of savings behavior namely: (1) relative income hypothesis (Duesenberry, 1949), (2) the life-cycle hypothesis (Modigliani and Brumberg, 1954), and (3). The permanent income hypothesis (Friedman, 1957).

All these theories have their conceptual root in the microeconomic theory of consumer choice.

2.7.1 Relative Income Hypothesis

James Duesenberry developed the hypothesis in 1949. The theory states that an individual’s attitude to consumption and saving is dictated more by his income in relation to the income of his counterparts living in the same environment with him. The theory stipulates that individuals are less concerned with their absolute level of consumption than with their relative level- the idea of “keeping up with the Joneses.” In another way round, the hypothesis maintains that the present utilization of an individual is not influenced merely by the current levels of absolute and relative income, but also by levels of consumption attained in the past period. Once a household reaches a certain level of consumption it is challenging to reduce. The aggregate ratio of consumption to income is assumed to depend on the level of present income relative to past maximum income.
2.7.2 Life-Cycle Hypothesis

Franco Modigliani and Richard Brumberg postulated the life-cycle hypothesis in 1954. The premise has been utilized to examine savings and retirement behaviour of older persons extensively. This hypothesis begins with the observation that income needs and income are often unequal at various points in the life-cycle. Consumption needs of the younger people tend to exceed their income. Their requirements tend to be mainly for housing and education, and therefore they have little savings. In the middle age, earnings rise, enabling debts accumulated earlier in life to be paid off and savings to be accumulated. Finally, in retirement, incomes decline and individuals consume out of previously accumulated savings.

Empirical studies of the life-cycle hypothesis have generated vast literature. Studies have focused on the savings behavior of older persons; however, have been inconclusive regarding the correspondence between observed savings behavior and the pattern of saving and dissaving predicted by the life-cycle hypothesis. Many studies have opposed the tenets of the life-cycle hypothesis, and have found that older persons continue to save in retirement, King (1985). In explaining this, he notes that savings in retirement is not necessarily conflicting with the life-cycle premise, if one accounts for the aversion of individuals to skepticism about the future (e.g., for how long they will live and future inflation expectation).

Another explanation for this is that the generosity of pensions reduces the need to save in preparation for retirement and to dissave while in retirement. Another related reason for lack of dissaving in retirement is that worsening health limits the ability of individuals to consume at levels higher than their income.
2.7.3 Permanent Income Hypothesis

An economic theory that tries to describe how individuals spread consumption over their lifetime is the permanent income hypothesis. Friedman first propounded the hypothesis in 1957. The theory supposes that a person’s consumption at a point in time is determined not just by their current income but also by their expected income in future years- “permanent income.” The hypothesis in its elementary form, states that changes in permanent income, rather than changes in temporary income, are what drive the changes in the consumption patterns of an individual. Its predictions of consumption smoothing, where people spread out transitory changes in income over time, departs from the traditional Keynesian emphasis on the marginal propensity to consume.

Income consists of permanent (anticipated and planned) component and a transitory (unexpected) component. In the hypothesis, the primary determinant of consumption is individual’s lifetime income, which is defined by his permanent income (expected long-term average income). Their assets determine a consumer's permanent income; both physical (shares, bonds, and properties) and human (education and experience) and this impact the consumer’s capacity to derive income. The consumer can then do an estimation of anticipated lifetime income. An individual saves only if they expect that their long-term average income- permanent income will be less than their current income.

The life-cycle hypothesis and permanent income hypothesis are the most relevant theories that aptly explain the behavior of savings of individuals. The two theories assume that individuals attempt to maximize their utility or personal well-being by balancing a lifetime stream of earnings with a lifetime pattern of consumption (Merghir, 2004).
2.8 Theories of Liquidity of Banks

The liquidity theories of banks can be developed from the perspective of three theories namely commercial loan theory, shiftability theory, and anticipated income theory.

2.8.1 Commercial Loan Theory

Before the view of shiftability, the sound theory of banking restricted banks to granting short-term commercial loans to assist producers of goods during their business cycles. For example, farmers may require short-term financing until their crop is ready for sale. The commercial loan theory postulates that by making short-term commercial transactions that will mature promptly will keep banks in an apt state to meet the demands of their depositors (Mitchell, 1923).

2.8.2 Shiftability Theory

The primary liability of banks at the time was deposits even though banking was not a new concept. The capital of banks in 1830 was about three times the deposits, but less than a century later, depositors had come to represent about 68% of banks' equity. Many were concerned about the possibility of a run on the banks and the inability to get much-needed cash due to the increase in deposit proportion.

It was shown that commercial lending often did not liquidate at maturity because of changing business periods. Burgeoning opposition began to showcase the need for an improved banking system that could avoid forced liquidation of this short-term paper that came about more or less periodically. The theory proposes that banks, instead of depending on the liquidity of these equities in a catastrophe, should be able to shift these earning assets to another institution with a
better cash position thereby creating the reserves needed. This ability to shift assets provides liquidity to otherwise assets (Gayer, 2000; Morton, 1988).

2.8.3 **Anticipated Income Theory**

The anticipated income theory was developed in the 1950s in reaction to the apparent insufficient liquidity provided by the making of commercial loans and the holding of money market securities. Using the principles of anticipated income theory, bankers began to look at their loan portfolio as a source of liquidity, and the anticipated income theory encouraged bankers to treat long-term loans as potential sources of liquidity.

An important question was raised in this theory that how can a banker consider mortgage loan as a source of liquidity knowing fully well that it has a long maturity? Using the anticipated income theory, these loans are typically paid off by the borrower in a series of instalments. Looking at it in this angle, the bank’s loan portfolio provides the bank with a continuous flow of funds that adds to bank liquidity. Moreover, even though the loans are long-term, in a liquidity crisis, the bank can sell the credits to obtain the needed cash in the secondary markets (Gayer, 2000).

In a sense, mortgage loans (as well as consumer and business loans or some specified period) are now considered to be equivalent to short-term business loans that finance inventories. The anticipated income theory is much like the commercial loan theory except that it embraces a broader base of securities from which liquidity may be obtained. Broader base now includes longer-maturity loans that regularly contribute to liquidity.
2.9 Commercial banks and savings mobilization

2.9.1 Bank-led theory

The bank-led model offers an offbeat alternative to traditional branch-based banking in whereby customer's financial transactions are done at a whole range of retail agents instead of at bank branches or via bank employees. The ultimate provider of financial services is the bank, and it remains the institution whereby customers operate their accounts. Retail agents have one-on-one interaction with customers and perform cash-in/cash-out functions much as a branch-based teller would take deposits and process withdrawals. Virtually any outlet that handles cash and is located near customers could potentially serve as a retail agent.

Based on the view of Kazi (2012), in the banking sector, deposit mobilization is a scheme designed to spur customers to deposit more cash with the bank which, in turn, will be used by the bank to give out more loans and generate additional revenue for them. The primary business that banks do is accepting deposits and granting credits. The more the credits the banks give out, the more the revenue they generate. Also, banks don't have a lot of their own money to give as loans and quite clearly depend on customers’ deposits to create funds for granting loans to other customers.

Traditionally, customers of banks walk to the banking premises to deposit money. This method of savings mobilization is not able to mop up enough savings. The World Development Report, (2008), in response to the problem of inability to mobilize enough savings, many banks have devised mechanisms of generating savings. Among the tools for savings mobilization identified by bank’s include moving from shop to shop to collect daily deposits, sending agents to economic zones to mobilize savings, among others. It is evident that the bank uses some
mechanisms to mobilize savings. Apart from the traditional mode of mobilizing savings where customers walk to the bank to save, there are other ways through which the bank mobilizes savings. Also, the bank moves from shop to shop to collect deposits. This mode of accumulating savings is done through a special arrangement with the customer. Customers who qualify must have high sales turnover. According to Laura, Alfred, and Sylvia (2009), to mobilize more deposits, financial institutions offer a range of savings products that are tailored to their particular clientele. They provide the most extensive variety of specialized savings products so that their customers have a choice between immediately accessible, liquid products, or semi-liquid accounts or time deposits with accordingly higher interest rates. Simple and clear design of primary savings products enables depositors to select the product that best suits their needs efficiently. The transparent and straightforward design of the savings products also allows staff to administer them with ease, reducing administrative costs.

In the view of Tanzi (2013), Fiscal policy relates government revenue to its expenditure. In most developing countries, taxation is the primary source of government revenue, and the effectiveness of which rests on its ability to generate required revenue and support investment taxation is often defined as the levying of compulsory contributions by public authorities having tax jurisdiction, to defray the cost of their activities. Ali-Nakyea, (2008) explains that the taxpayer gains no specific reward. The money collected is used for the common good of the citizenry for the production of particular services, as aforesaid, which are considered to be more efficiently provided by the State rather than by individuals, e.g., maintenance of law and order at home, and defence against external enemies, etc. According to Katang and Ntui (2008), in the most basic terms, commercial banks take deposits from individual and institutional customers, which they then use to extend credit to other customers. They make money by earning more in
interest from borrowers than they pay in interest to those whose deposits they accept. They are different from investment banks, International Journal of Small Business and Entrepreneurship Research. Therefore one of the most critical ways leading to financial performance is the practical use of deposit mobilized extended to customers as the generation of interest. Prasanta (1997), in his doctoral dissertation titled, “Performance of Public Sector Commercial Banks,” has evaluated the performance by selecting specific parameters like deposit mobilization, analysis of advances, credit deposit ratios, interest spreads, employee productivity, customer services, profit as a percentage of working funds, etc. It has been brought out that there is a gradual increase in the rate of profit on the working funds due to deposit mobilization.

A commercial bank asset management is a never-ending leg of war. This war is pitched between efficient liquidity management on the one hand and profitability on the other (Ajibike and Aremu, 2015). Liquidity and profitability are two original goals in commercial banks; bank managers will continue to experience a conflict of trying to provide an efficient mechanism of addressing their banks’ liquidity and hence their safety is necessarily arising from the nature of their liabilities.

A high proportion of commercial banks are made up of demand deposits (current account), savings account, time deposits and funds from other sources. Demand deposits are those bank liabilities that are payable on demand. As a matter of necessity, commercial banks need to keep only highly liquid assets to meet any conceivable volume of withdrawal. Liquidity assets can yield little or no returns on assets. It is less likely to produce adequate returns. As such, the higher, the less risky assets, the more the bank is exposed to experience bank crisis or distress (Ubong and Uduak, 2015). Banks at that rate will most likely not be able to cover all its cost and also make a profit for the owners. A bank might be tempted to forgo liquidity and pursue
profitability by investing only on high yielding less liquid assets that are achieving profitability at the expense of liquidity to satisfy its shareholders. It is always crucial to balance liquidity and profitability to have an improved bank performance.

2.10 Banks’ financial performance

Performance Measures are quantitative or qualitative ways to characterize and define performance. They provide a tool for organizations to manage progress towards achieving predetermined goals, identifying key indicators of organizational performance and customer’s satisfaction. Performance measurement can be said to be the process of assessing the progress made towards achieving the predetermined performance goals. Guest et al. (2003) define performance as outcomes, results, and achievements (negative or positive) arising out of organizational activities. They argue that it is essential to measure strategic practices regarding outcomes.

These outcomes vary along a continuum of categories such as financial measures (Return on Asset, Return on Equity, turnover, Profitability).

2.11 Savings and some of its determinants

The primary emphasis in the analysis below is given to the determinants of savings of people. The income level is considered as the primary determining factor of savings, but this is not the only factor affecting the savings. Other factors are the level of interest rates and the age structure of the population.
“Both theoretical and empirical work on savings has consistently outlined the major potential determinants of savings that can be grouped loosely under the headings of government policy variables, financial variables, income and growth variables, demographic variables, financial variables, uncertainty measures, and external variables.” (Metin K., Asli O., Ertac S. 2003, page 1409).

“Understanding the motivation for saving (at the level of individuals and for the community as a whole) is not only of academic interest but also important regarding its policy implications. Identifying the key determinants of saving may help policymakers to design policies to stimulate domestic savings and thus domestic investment.” (Economic Survey of Europe, 2001 No.1. page 177).

The role of expectations is also vital in determining savings. Expectations of people regarding the future economic situation are also important factors because they can affect the current expenditures and savings. The study and the analysis of the determinants of savings will enable to forecast the tendencies in the accumulation of financial resources by population and will also help to develop an efficient mechanism of transformation of savings into investments.

Income level need be considered among the determinants of savings. The level of incomes directly influences the amount of savings and also increases the propensity to save. The increase of revenues of households will by implication lead to the rise of the investment potential of the people. The increase in savings will accompany an increase in the size of income. Savings of people as one of the indicators of living standard depend on the well-being of the population. If savings tend to be on the rising trend and in the absence of paradox of savings, then there will be similar investment level.
Encouragement of an increase of interest of population in investing on savings can also be realized through taxation. “Several studies have demonstrated that tax policy has a positive impact on the real sector and is a critical tool for stabilization and also for promoting savings and capital.” (Peter V, Peter R. 2006, page 36). Just as the most developed countries practice tax stimulation of savings, tax incentives for domestic investors should be actively used.

Demographic variables are considered critical as a determinant of household savings. The population structure affects the saving behaviour of individuals.

“In the basic life-cycle model, the age distribution of families has an impact on the total personal savings rate as a result of the savings rates of individuals are assumed to differ with their maturity. A rise in the proportion of elderly households in the population is expected to reduce the total savings rate because retired households are assumed to dissave, or at least save less than those of working age. Similarly, an increase in the percentage of the people that is of pre-working age is also expected to diminish the aggregate personal savings rate as parents spend a large proportion of their income on taking care of their children.” (Bérubé G, Côté D. 2000, page 5)

2.12 Methodological and Empirical Literature review

Several works have been carried out on issues relating to financial institutions in general and commercial banks in particular. Some studies similar to this are within the discussion of the methodological and empirical literature review and are discussed accordingly.

Jha and Hui (2012) carried out a study on the comparison of financial performance of commercial banks in Nepal from 2005 to 2010. The technique of multiple regression analysis
employed shows that non-performing loan and credit to deposit ratio do not have any considerable effect on return on the asset which measures profitability ratios.

In Nigeria, several studies have also been carried out. A study on the credit risk on the performance of commercial banks in Nigeria was carried out by Kolapo et al. (2012) over 2000-2010 for five commercial banks. Estimating using a panel model, results show that credit risk effect on commercial banks performance is similar across banks in Nigeria. In the same vein, Mohammed (2012) examines the impact of corporate governance on banks’ performance in Nigeria using secondary data for nine banks for the period 2001-2010. The multiple regression was used, and findings show that there is support for corporate governance in affecting the performance of banks positively.

Abaenewe, Ogbulu, and Ndugbu (2013) examine the profitability performance of Nigerian banks measured by return on equity and return on asset following the full adoption of the electronic banking system. The findings show that the approval of electronic bank has positively and significantly improved the returns on equity of Nigerian banks.

In the study carried out by Ogbuabor and Malaolu (2013) on the informality and bank performance in Nigeria using a panel data analysis, their results show that if performance of bank is measured by profits after tax or return on asset, there exists a negative relationship between informality and deposit money banks’ performance in Nigeria.

Following the analysis of the literature, the theoretical literature on the life-cycle hypothesis shall be employed alongside with commercial bank loan theory as a basis for the methodology.

I.C. Achumba, O.S. Ighomereho and M.O.M. Akpor-Robaro (2013) examined security challenges in Nigeria and the implications for business activities and sustainable and concluded
that security just like other elements in the business environment enhances and optimizes business activities but insecurity hinders these activities and so it constitutes a threat to business organizations and that the Nigerian government and others must fight insecurity to create an enabling environment where business organizations will thrive and achieve their full potentials for economic growth.
CHAPTER THREE
SAVINGS AND COMMERCIAL BANK PERFORMANCE IN NIGERIA

3.1 Chapter Overview

This chapter presents a picture of savings and its impact on commercial banks’ performance in Nigeria. This was done by looking at some historical trend of the commercial banks.

3.2 Introduction

Financial capital availability is a prerequisite for the rapid development of any nation’s economy. It is generally acknowledged that the provision and efficient management of the scarce resources is facilitated by the existence and appropriate functioning of financial institutions in the economy. It follows that banks have a vital role to play by making their vast financial resources available for financing and promoting development.

In the view of Anyaele (1990) commercial banks are institutions which are set up for purpose safekeeping of money, valuable goods and documents such as wills and others. Accordingly, the existence of banks has been a big boost to business activities.

In 1975, during the annual dinner of the Nigerian Institute of bankers in Lagos, the then governor of central bank, Mallam Adamu Ciroma, frowned at what he termed the “excess liquidity in the banking system”; and saw the strict adherence of the commercial banking system to orthodox doctrine of lending short-term loan as an act not desirable and urged commercial banks to take some risks in giving medium and long-term loans.

The banking system should be geared towards developing the economy. Apart from acting as an agent for mobilization of saving, it is expected that banking institutions play a more dynamic role
in the area of stimulation of investment and channeling of such investment to productive sectors of the economy.

3.3 Commercial Banks in Nigeria: Some Historical Trend

Financial institutions operating in a financial sector can be grouped into monetary and non-monetary institutions or regarding funds or their sources. The classification of the institutions in the Nigerian financial system is as follows: The banking system, specialized or development banks, savings institutions, insurance and provident fund and the security markets.

The apex bank of the Nigerian financial system is the Central Bank of Nigeria (CBN), with the chain of financial development in Nigeria evolving with its establishment in 1958. Since this period, the CBN has remained a dynamic agent which drives investment and economic growth in the economy. The increasing level of the financial assets by way of expansion is a pointer to the dynamic role of the CBN in the economy.

The CBN has the power of issuing national currency, maintaining external reserves, promoting monetary stability and a sound financial structure. Besides, it also serves as bankers’ bank and banker and economic adviser to the government. Apart from the performance of the traditional function of issuing means of payment and controlling the money supply, it has been able to implement monetary and exchange measures which are aimed at strengthening the institutional infrastructure of the financial system and also expanding domestic financial markets for the movement of investment resources to the productive sectors of the economy.

Activities of the commercial banks began in 1892 with the establishment of the African Banking Corporation ledger depositor and Co., a shipping company based in Liverpool was instrumental
to the formation of this bank. In 1984 this bank was taken over by the bank of the British West African which after some time transformed to the Standard bank and now First Bank of Nigeria Limited.

The next was Barclays bank and company (now Union Bank of Nigeria Plc) which was established in the year 1917. These banks were created to provide banking services for the British Commercial interest and the colonial administration in West Africa when the West African currency board (Gyasi Central Bank) was set up in 1912, the bank of British became the agent of the currency board.

After that, the National Bank of Nigeria came up in 1933 and happened to be the first indigenous bank that was to survive other banks that were established before that time including the merchant banks.

After the Second World War, many banks were in operation in the Nigerian economy. Between 1945 and 1947, four (4) other indigenous banks, Africa Continental Bank (ACB) Agbenmagbe, Nigeria farmers, and Commerce bank came into existence with only two surviving, the African Continental Bank and Agbenmagbe bank (now Wema Bank Plc).

The era (1945 – 1952) was a period of free for all in the Nigerian banking industry. In the span (1905 – 1975) alone 18 banks were established, but by the year 1975, most of them became liquidated or closed down.

Nigerian commercial banks can be divided into two (2) primary categories namely: - the domestic banks (owned 100% by Nigerians) and the mixed banks (with a majority of local
shareholders having a minimum 60% of the shares). The Nigerian law does not allow any foreign bank with a majority foreign interest.

As the oldest unit of the Nigerian financial system, commercial banks have remained one of the most advanced of the financial institutions compared to other financial intermediaries that may be limited by capital resources and size of activity including the fact that some may just be developing. Hence, the commercial banks are seen at the top when compared with other institutions such as the Federal savings banks, Merchant banks, and Mortgage banks by way of mobilization of deposits and credit extension to the economy.

3.4 Function

The following are some of the products and services that banks offer to their numerous customers in promoting economic development in Nigeria.

1) Term Loans: Banks provide medium to long-term financing for new projects and expansion of projects, to enable their customers to finance specific projects which usually requires significant capital outlay.

2) Overdraft Facilities: This is a short-term standby credit facility which is given for a maximum period of 12 months and may be renewed annually. Overdraft facilities enable bank customers meet pressing cash calls.

3) Inland Bills Purchase Facility: This facility allows customers to obtain immediate payment on all their bills lodged with the bank by discounting the same with the bank.

4) Equipment Leasing: For every economy to achieve meaningful growth, it must generate sufficient savings for investment. Relevant to the issue of financing is the need for capital accumulation. A finance lease is a type of facility in which the bank is typically the legal owner
of the asset for the period of the contract, while the lessee or customer not only has an operating authority over the asset but also has a substantial share of the economic risks and returns from the change in the valuation of the underlying asset. A finance lease facility allows the customer have sufficient working capital that would have otherwise been locked in assets.

5) Preferential Sector Financing: This is in line with government efforts of encouraging small and medium scale enterprises through the National Economic Reconstruction Fund (NERFUND) and other governmental bodies set up for this purpose.

6) Warehousing Loan: The banks’ customers also enjoy warehousing of stock financing facility. Here customers’ goods are pledged as collateral and are kept in a warehouse in the name of the bank for which the customer is given credit accommodation. The bank extends this type of facility to customers to help them either stockpile required raw materials for the future, or take advantage of prices, etc. This service is most valuable for goods that are seasonal.

7) Export Financing: Commercial banks have been in the forefront in providing short, medium and long-term funds for an export operation for its numerous customers. The banks also participate in the Nigerian Export-Import Bank (NEXIM) which was established by the government with a specific mandate to assist banks to provide pre and post-shipment finances in support of non-oil export under the scheme known as the re-discounting and refinancing facility, (RRF). Other services offered by NEXIM includes the (FIF), i.e., the foreign input facility which provides manufacturers of export products the need for foreign exchange for the importation of capital equipment packing and raw materials for the production of finished or semi-finished export products.
History of commercial banks’ performance has long been in existence. Looking at this within the post-independence era, between 1970 and 1980, close to 97% on the average, of all deposits of the financial system came from the commercial banks. In the same vein, it also accounted for more than 80% of all the institutional savings in Nigeria. The banking system experienced rapid expansion between 1973 and 1974 when the oil revenue surged significantly. With this, the volume of the assets and liabilities rose immensely. With the pattern of the trend, commercial banks accounted for more than 60% of the resources of the financial system between 1970 and 1973 and the period 1974 to 1980; the ratio fell to 52%.

Observing the trend from the 1990s, in 1990, deposit was 20.99% of GDP; it further rose to 24.0% in 2000; 24.47% in 2006; 25.842% in 2012 and 27.458% in 2015 as seen in Figure 3.4.1 below.

**Figure 3.4.1: Trend in Deposit as a percentage of GDP (1990-2015)**

![Trend in Deposit as a percentage of GDP (1990-2015)](source: CBN)
The share of commercial banks’ credit to the private sector of the economy also demonstrates the performance of the system. Commercial banks accounted for over 90% of all the loans to the private sector between 1963 and 1967 and 82% between 1970 and 1975. The share stood at 88.3% between 1976 and 1981. Performance of commercial banks in Nigeria as in most developing countries regarding the provision of credit to the private sector is encouraging. In 1990, domestic lending to the private sector as a percentage of GDP was 8.7%, rose to 13.0% in 1998, amounted to 25.2% in 2007 and fell to 14.8% in 2015.

Figure 3.4.2 below demonstrates the trend in the credit to the private sector from 1990-2015. This period is the principal scope of this study.

Figure 3.4.2: Credit to Private Sector as a percentage of GDP in Nigeria (1990-2015)
The trend in broad money supply denoted here as (MS) as a percentage of GDP in Nigeria can in one way, or the other explain the performance of the commercial banks regarding liquidity flow. In 1990, MS equaled 20.4% of GDP. The ratio fell to 18.7% in 1998; further fell slightly to 18.3% in 2004, rose to 20.7% in 2011 and stood at 24.0% in 2015. This is shown in figure 3.4.3 below.

Figure 3.4.3 Money Supply as a percentage of GDP in Nigeria (1990-2015)

Source: CBN

The relationship between the gross national savings as a percentage of GDP and commercial bank performance regarding deposit as a percentage of GDP, MS as a percentage of GDP and local credit to private sector as a percentage of GDP can be well appreciated.
In 1990, aggregate savings was N13.0 million, which amounted to 29.826% of GDP in that year. Also, in 1990, deposit to GDP, MS/GDP and domestic credit to private sector to GDP was 20.99%, 20.4%, and 8.7% respectively. In the year 2000, aggregate savings stood at N164.6 million, which amounted 32.664% of GDP. Also in 2000, deposit to GDP, MS/GDP and domestic credit to private sector to GDP was 20.19%, 22.0%, and 12.4% respectively. In the year 2010 and 2015, aggregate savings was N1, 306 million and N1, 947 million respectively, and they amounted 31.7% and 29.541% respectively. Between 2010 and 2015, deposit to GDP ratio rose from 25.842% to 27.458%; MS/GDP rose from 21.0% to 24.0% and domestic credit to private sector to GDP fell from 15.4% to 14.8% respectively.

According to Karimo, Tari Moses; Ogbonna, Oliver Ejike (2017) the rise in domestic credit to private sector as a percentage of GDP in 2009 and also money supply as a percentage of GDP in year 2009 as seen in Figures 3.4.2 and 3.4.3 respectively, is due to the to bailouts of the financial sector (with taxpayers’ money) by the government of Nigeria as a result of the global financial crisis that led to economic meltdown that year as it was believed that once the financial sector was revived, that would translate into reviving the economy and stimulating growth.

The efficient financial sectors play significant roles in the development of an economy. According to Bello (2005), the banking system is the backbone of financial intermediation through the sourcing and channeling of financial resources. Banks in performing their critical role in the economy, facilitate financial settlement through the payment system, influence money market rates and provide a means for international payment. The sector mobilizes funds from the surplus spending units into the economy, and by lending such funds to the deficit spending units for investment, banks in the process increase the proportion of national savings and investment (Mordi, 2004).
Commercial banks do depend on customer’s deposit to advance its clients. The lending enterprise is made possible only if the banks can mobilize enough funds from their customers. Since commercial banks depend on depositor’s money as a source of funds, it means that there are some relationships between the ability of the banks to mobilize deposits and the amount of credit granted to the customers. Thus, the primary function of financial institutions of mobilizing funds from the surplus economic agents to the deficit economic agents is put to the test to generate economic growth. However, the efficiency of performing this function depends on the level of development of the financial system.

The figure below shows the trend in aggregate savings (private savings + public savings) in Nigeria for the period 1990 and 2015. In 1990, aggregate savings was N13.0 million; it rose to N84.1 million in 1997, it further amounted to N735.9 million in 2007 and stood at N1,947.4 million in 2015. This implies that aggregate savings have been on the upward trend for the period covered.

**Figure 3.4.4: Aggregate Savings in Nigeria (1990-2015)**

Source: CBN
Figure 3.4.5 below shows the trend in gross national savings as a percentage of GDP and commercial bank performance regarding deposit as a percentage of GDP, MS as a percentage of GDP and domestic credit to private sector as a percentage of GDP.

In 1990, aggregate savings was N13.0 million, which amounted to 29.826% of GDP in that year. Also, in 1990, deposit to GDP, MS/GDP and domestic credit to private sector to GDP was 20.99%, 20.4%, and 8.7% respectively. In the year 2000, aggregate savings stood at N164.6 million, which amounted 32.664% of GDP. Also in 2000, deposit to GDP, MS/GDP and domestic credit to private sector to GDP was 20.19%, 22.0%, and 12.4% respectively. In the year 2010 and 2015, aggregate savings was N1, 306 million and N1, 947 million respectively, and they amounted 31.7% and 29.541% respectively. Between 2010 and 2015, deposit to GDP ratio rose from 25.842% to 27.458%; MS/GDP rose from 21.0% to 24.0% and domestic credit to private sector to GDP fell from 15.4% to 14.8% respectively.

Figure 3.4.5: Savings and Commercial Bank Performance in Nigeria

Source: CBN
CHAPTER FOUR
RESEARCH METHODOLOGY AND ANALYSIS

4.1 Chapter Overview

This chapter is concerned with linking the theoretical framework to the model. It also describes the variables used for the analysis including the specification of the model and relevant definitions. The life-cycle hypothesis and the commercial bank loan theories are followed explicitly as the basis for the theoretical base for the study. Both arguments were discussed in the literature review.

4.1.1 Life-Cycle Hypothesis

The life-cycle hypothesis was postulated by Franco Modigliani and Richard Brumberg in 1954. It has been utilized to examine savings and retirement behavior of older persons extensively. This hypothesis begins with the observation that income needs and income are often unequal at various points in the life-cycle. Consumption needs of the younger people tend to exceed their income. Their requirements tend to be mainly for housing and education, and therefore they have little savings. In the middle age, earnings rise, enabling debts accumulated earlier in life to be paid off and savings to be accumulated. Finally, in retirement, incomes decline and individuals consume out of previously accumulated savings.
4.1.2 Commercial Loan Theory

The commercial loan theory postulates that by making short-term commercial transactions that will mature promptly will keep banks in an apt state to meet the demands of their depositors (Mitchell, 1923).

In this study, the primary attention is to observe how aggregate savings affect commercial banks performance in Nigeria. In this case, the total savings is measured by the gross national savings (GNS) and commercial banks performance are measured by domestic credit to the private sector (DCPS), money supply to GDP ratio (MS) and deposit to GDP ratio (DGDP).

The link between the life cycle hypothesis and the commercial loan theory essentially shows the relevance of savings particularly in future consumption behavior of individuals. This may be related to bank transactions where individual savings may be invested for more income accumulation in future which invariably leads to enhancing commercial banks performance.

4.2 Model specification

Assuming linear relation, the model is presented as follows:

\[ bp \approx f(sav) \] (i)

On disaggregation, we obtain

\[ dcps \approx a_0 + a_1sav + e_1 \] (ii)

\[ ms \approx b_0 + b_1sav + e_2 \] (iii)

\[ dgdp \approx d_0 + d_1sav + e_3 \] (iv)
4.3 **Estimation Technique**

The technique adopted is a regression model of estimation using a bivariate case on a step by step procedure. The reason for using this technique is that it can predict the response variable in this case - the domestic credit to the private sector, money supply, and deposit rate- given the explanatory variable which is the ‘savings’. The OLS method is used to carry out the regression procedure as it gives a method of the sum of the square of error minimization.

4.4 **Sources of data**

Data is collected mainly from the following sources: Central bank of Nigeria Statistical bulletin (2016), National Bureau of Statistics and the World Bank via the Federal Reserve Bank of St. Louis.
### 4.5 Presentation of data

**Table 4.5.1**

<table>
<thead>
<tr>
<th>Year</th>
<th>DCPS</th>
<th>MS</th>
<th>DGDP</th>
<th>GNS</th>
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</thead>
<tbody>
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<td>1990</td>
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<td>11.2</td>
<td>12.13</td>
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<td>13.8</td>
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<td>12.7</td>
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</tr>
<tr>
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<td>18.9</td>
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<td>14.04</td>
<td>20.1</td>
<td>17.69</td>
<td>12.13</td>
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</table>

**DCPS** - [Units: Percent, Not Seasonally Adjusted]. Private credit by deposit money banks and other financial institutions to GDP, calculated using the following deflation method: 

\[ \frac{(0.5) \cdot \frac{F_t}{P_e} + \frac{F_{t-1}}{P_{e-1}}}{\frac{GDP_t}{P_a}} \]  

where F is credit to the private sector, P_e is end-of period CPI, and P_a is average annual CPI. Source: World Bank

**MS** — [Unit: Percent] Sources: Central Bank of Nigeria and National Bureau of Statistics. Figures are annual averages

**GNS** – In (N’ Billion). Source: Central Bank of Nigeria

**DGDP** - [Units: Percent, Not Seasonally Adjusted]. Demand, time and saving deposits in deposit money banks as a share of GDP, calculated using the following deflation method: 

\[ \frac{(0.5) \cdot \frac{F_t}{P_e} + \frac{F_{t-1}}{P_{e-1}}}{\frac{GDP_t}{P_a}} \]  

where F is demand and time and saving deposits, P_e is end-of period CPI, and P_a is average annual CPI. Source: World Bank
Table 4.6: Descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>Std. dev</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCPS (domestic credit to private sector)</td>
<td>8.55</td>
<td>36.01</td>
<td>13.73</td>
<td>5.93</td>
<td>2.77</td>
<td>8.47</td>
</tr>
<tr>
<td>MS (money supply)</td>
<td>8.58</td>
<td>37.96</td>
<td>17.87</td>
<td>6.62</td>
<td>1.38</td>
<td>2.88</td>
</tr>
<tr>
<td>DGDP (deposit to GDP ratio)</td>
<td>8.48</td>
<td>34.66</td>
<td>16.02</td>
<td>5.36</td>
<td>1.91</td>
<td>5.45</td>
</tr>
<tr>
<td>GNS (gross national savings)</td>
<td>3.34</td>
<td>23.25</td>
<td>8.92</td>
<td>4.39</td>
<td>1.57</td>
<td>3.44</td>
</tr>
</tbody>
</table>

Source: Computed using SPSS

Table 4.6 describes properties of the data on variables used for the analysis. The money supply comes with the highest mean 17.87 followed by the deposit rate 16.02 during the period. This explains the magnitude of the size of both variables during the period. The variable with the most significant fluctuation is money supply with a standard deviation of 6.62. This also demonstrates that the size of money supply over time is not regular but accompanies some level of fluctuation.

All variables are positively skewed.

The domestic credit to the private sector has the most magnificent peakedness during the period, 8.47.
4.7 Regression results

Panel a

Table 4.7.1

<table>
<thead>
<tr>
<th>Dependent Variable: DCPS</th>
<th>Coefficient</th>
<th>Std. error</th>
<th>Significance</th>
<th>ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.26</td>
<td>1.36</td>
<td>0.024</td>
<td>F: 73.46</td>
</tr>
<tr>
<td>GNS</td>
<td>1.17</td>
<td>0.14</td>
<td>0.0000000091</td>
<td>Sig: 0.0000000091154</td>
</tr>
</tbody>
</table>

\[ R^2 : 0.75 \]

Source: Computed using SPSS

The first stage of the analysis involves the impact of the gross national savings (GNS) on the domestic credit to the private sector (DCPS) as a ratio of the GDP. The regression results show that a positive relationship exists between GNS and DCPS as demonstrated by the coefficient 1.17. By implication, a 1% increase in savings results in about 117% increase in the commercial banks' credit to the private sector. Hence, savings in the economy has a positive impact on the credit disbursement to the private sector. This is expected because aggregate savings increases the level of liquidity and enhances commercial banks performance in the economy.

The coefficient of determination is 0.75 which implies that savings explain about 75% of the variation in the domestic credit to the private sector. Other factors which explain its variation are not included in the model and have been captured by the error term.

The variable ‘savings’ is significantly affecting domestic credit to the private sector as indicated by the probability value while the ANOVA supports the significant nature.

Panel b

Table 4.7.2

<table>
<thead>
<tr>
<th>Dependent Variable: MS</th>
<th>Coefficient</th>
<th>Std. error</th>
<th>Significance</th>
<th>ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>5.21</td>
<td>1.04</td>
<td>0.000042</td>
<td>F: 181.58</td>
</tr>
<tr>
<td>GNS</td>
<td>1.42</td>
<td>0.11</td>
<td>1.0938E-12</td>
<td>Sig: 1.0938E-12</td>
</tr>
</tbody>
</table>

\[ R^2 : 0.88 \]

Source: Computed using SPSS
Looking at the relationship between money supply (MS) and national savings, the coefficient of savings gives 1.42. This also demonstrates a positive correlation between it and money supply. The relationship is in two-fold. Increasing savings may boost the commercial banks' ability to supply credit to the deficit sector and thus leading more money to the system. Contrarily, given the paradox of savings, this may not substantially boost the total volume of money in circulation.

The coefficient of determination, in this case, is 0.88. This also means that savings explain about 88% variation in the money supply. In comparison to the domestic credit to the private sector, this is higher.

On the significance test, savings is significant in explaining money supply in the money supply equation as indicated by the probability value.

### Panel c

**Table 4.7.3**

<table>
<thead>
<tr>
<th>Dependent Variable: DGDP</th>
<th>Coefficient</th>
<th>Std. error</th>
<th>Significance</th>
<th>ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>5.81</td>
<td>0.87</td>
<td>6.1649E-7</td>
<td>F: 171.38</td>
</tr>
<tr>
<td>GNS</td>
<td>1.14</td>
<td>0.09</td>
<td>2.0211E-12</td>
<td>Sig: 2.0211E-12</td>
</tr>
</tbody>
</table>

Source: Computed using SPSS

Next is on the relationship between deposit (DGDP) and national savings. It is evident from the results that deposit increases with increase in savings as indicated by the coefficient 1.14. It follows that savings is essential in boosting the deposit rate in a commercial bank. With more savings, customers can transfer funds in the form of deposit for some other future or immediate use.
The coefficient of determination in panel c shows that the explanatory power of the savings on deposit rate is the same compared to money supply and of course higher than domestic credit to the private sector.

Savings in the DGDP is significant from the p-value, and the ANOVA value further demonstrates this.

4.8 Findings

The findings have indicated that savings has a positive impact on each of the banking performance measures and is significant in all the cases.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Chapter Overview

This chapter presents the summary of findings from the study, discussion, conclusion, and recommendation.

5.2 Summary

This study examined the relationship between savings and commercial banks performance in Nigeria. The study observed that savings is fundamental to economic growth through the efficient functioning of the financial system as savings could be converted into regular savings or fixed deposit which serves as the working capital of the financial system. A way of creating productive savings attitude is through savings mobilization. Increase in the mobilization of savings can generate an increase in internally generated revenue which then becomes useful for housing, microenterprises, and small business loans. This thus remains a good signal for the growth of financial intermediaries.

The theoretical framework is centered on the lifecycle hypothesis and the commercial loan theory. The idea of the former is seen from the use of accumulated savings in the future for day to day transactions which tends to enhance commercial banks activities and hence, their performance. By this theory, the relationship between savings and commercial banks performance was developed. Commercial banks performance was measured by domestic credit to the private sector, money supply to GDP ratio and deposit to GDP ratio while the gross national savings captured the savings. The analysis was carried out using the ordinary least
squares technique due to efficiency and consistency. Results from the analysis showed that savings increased domestic credit to the private sector during the period under review and is significant. Increase in the aggregate savings increased the money supply and is equally significant. Deposit too was found to have a significant positive relationship with the total savings. The overall model utilized was adequate.

5.3 Conclusion

Savings appears to be fundamental to the development of the financial sector of the economy as it serves as one of the media through which the commercial banks generate their working capital. The results arising from the analysis confirmed the role which savings played in commercial banks performance over the period. Effect of savings on domestic credit to private sector is quite high just like the other two measures of commercial banks performance. The economic trend seems to affect savings in the Nigerian economy. This is further worsened by issues of global financial crisis and recession where savings is cut down for consumption to become more pronounced. The result is low domestic savings which subsequently leads to low level of investment. This is partly due to the cash crunch situation the economy experiences.

5.4 Recommendation

The relevance of savings to Nigeria’s financial sector development need be taken as a critical issue. From the above, it is hereby recommended that:

1) Commercial banks need to focus on small savings together with substantial savings as the small savings may encourage savers to put in their little resources for investment.

2) Government should ensure security in the country to allow for inflow of investment.
3) An economic policy that can efficiently revive the financial situation need be put in place to bring back an investment-friendly environment.

4) Further reform that can improve the performance of the banking sector need be put in place; this would complement the previous reform policy.
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https://fred.stlouisfed.org/series/DDOI02NGA156NWDB. Accessed 2018-04-18
