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The Empirical Analysis of the Impact of Intermediation Roles of Banks on the Performance of the Nigerian Economy (2003 – 2013)

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Abstract
This paper is a part of my dissertation research on the impact of intermediation roles of banks on the performance of the real sectors of the Nigerian economy. The main objective is to find out if the banking industry loans and advances have any significant effect on the real sector GDP growth rate, using manufacturing component of GDP as the representative of the real sector. The research design adopted in this dissertation was ex-post facto. The paper analyzed published audited accounts of twenty (21) out of twenty-five (25) banks that emerged from the consolidation exercise that took place in 2005 in Nigerian banking industry and data from the CBN on the sectors' GDP growth rate. The study covers an 8 year period (2005-2013). Parametric statistics in forms of analysis of variance-ANOVA, mean, standard deviation, t-test, co-efficient of correlation and simple linear regression were used to analyze the hypothesis. The paper found out that banking sector intermediation has significantly improved the GDP component of the manufacturing sector, hence, has contributed marginally to the overall growth of the real sector for sustainable development. The paper concludes that banking sector is becoming more competitive in their intermediation roles as consolidation reform has created an atmosphere where many banks simply cannot afford to have weak balance sheets and inadequate corporate governance. The study recommends among other things that CBN should continue to collaborate with all the stakeholders in the financial sector to ensure that any bank reform to be introduced in the banking industry must be market driven to allow for efficient intermediation process necessary for improved real sector GDP growth rate.
Keywords: GDP, Real sector, Manufacturing, Intermediation, consolidation, Banks.

Introduction

Banking industry and economic growth are inseparable. Banking sector has traditionally been an extremely important channel of financial intermediation in both developed and emerging economies world over. It is common knowledge that the strength of any economy is strongly tied to the strength of her banking sector. This means that the state of the economy is strongly impacted on by the operations and performance of her banking industry. In the last two decades the link between financial intermediation (FI) and economic growth has generated a great deal of interest among academics, policy makers and economists around the globe both in developed and emerging economies. The development of any economy is often viewed largely from the perspective of the growth and vibrancy of its banking sector. This shows how important investible funds are to economic growth and development. Therefore, the place of banking industry in economic growth and development of any nation cannot be over-emphasized. Cavalier (2002) submitted that banks more effectively play intermediating role in financing industrial expansion than any other forms of financial institutions in developing economies. Obviously, both the public and private sectors of any economy need banking sector credits for more productive activities as prerequisites for enhancing a nation's overall performance. Lucas (1990) noted that the development of any economy is greatly enhanced through a vibrant banking industry which serves the function of mobilizing savings from small and large savers in the economy and channels same to the fund users for investment purposes. Banking industry provides credit facilities to individuals, companies, as well as government for one kind of economic activity or the other. It could be for industrialization purpose, manufacturing, agricultural production, execution of contract and the likes. Onwumere and Suleman (2010) have posited that all national economies comprise the public and private sectors, though, the degree and size of each sector differ among countries. They noted that the development of a country's economy involves in part the development of the different sectors subsumed in these two main sectors. These different sectors may include some or the following; agriculture, industry, mining, commerce, transportation, communication etc. These sectors need funds to remain in operation and contribute to the nation's overall performance. For them to survive and perform effectively there must be investment which is synonymous with funding, hence the banking industry becomes a very relevant funnel.

In Nigeria banks are the largest financial intermediaries that transfer funds from surplus sector to the deficit sectors of the economy. Agreeing with this, Desai (1995:90) explains that banking industry is an indispensable element in any economy's intermediation drive as it provides the bulk of the money supply as well as the primary means of facilitating the flow of credits especially to the real sectors. Consequently, McCauley (1992:33) submits that the economic well being of a nation is a function of advancement and development of her banking industry. Banking being described by Schumpeter (1934:8) as a conductor focal point for economic growth has important role to play in the funds intermediation between surplus and the deficit sector, hence the over-all growth of the economy. Ogunleye (1999) recalls that government has from the formative years of the nation's financial market up to the mid-1980s till date made enough effort to encourage banking sector to extend enough credits to the real sectors. Banks were required to allocate the bulk of their loanable funds to the real sector at concessionary rate of interest, in the belief that a low interest rate structure would promote investments and output growth in the economy. Banking sector as the engine and prime mover of economy is suppose to be playing a leading role in empowering the other sectors of the economy especially the real sector to contribute to economic growth and development through improved GDP.

Statement of the Problem

There has been a problem of how to conduct a successful research that can determine the impact of the intermediation role of banking industry on the performance of the real sectors in an emerging economy like Nigerian. Over the years, one of the major problems facing the banking industry in its intermediation years, is how to ensure that funds reach various sectors of the economy especially the real sectors and significantly impact on them in a positive way. This has not be easy because Nigerian economy is viewed as being monoculture due to the predominant effect of oil sector especially in the resources generation to the government as such the other real sectors are guised to be lagging behind in respect of the generation of revenues to the government due probably to poor credits extension to them. Hence, this study, after which it will no longer be a guise, the clear picture would be shown.

Objectives of the Study

In line with the problem stated above, the objectives of this study were to:

1. Determine if the volume of bank credits and advances to the real sectors is positively related to the GDP growth rate of the economy.
2. To ascertain if the bank credits and advances to the manufacturing sector has any significant effect on the component GDP of the sector.

Hypotheses of the Study

The following null hypotheses were tested at (0.05) level of significance:

H_0: The volume of credits and advances to the real sector of the economy is not positively related to the GDP growth rate of the economy.

$H_{0:}$ Bank credits and advances to the manufacturing sector have no positive significant effect on the component GDP of the sector.

Theoretical Frame Work

The Role of banking industry to the growth and the development of the real sectors can be traced to the emergence of intermediation theories. In other words, our understanding of the role or roles played by banks as intermediaries both in the financial sector and real sector is found in the many and varied models in the areas known as intermediation theories, (Gurley and Shaw 1960).These theories of intermediation have built on the models of resource allocation based on perfect and complete markets by stating that banking industry credits are necessary ingredients to the growth and development of the real sectors of any economy, (Leland and Pyle 1977).

The proponents of these theories expressed that the banking sector of the economy could impact real sector's economic growth through the catalytic effect of adequate fund injection, regulation, technological innovation and capital accumulation. Pioneer contribution of Schumpeter (1934) is of the view that financial institutions are necessary conditions for economic development. This view has been variously corroborated by other scholars like Gibson (1995), Cameron (1972), Desai (1995) and Gorton and Frank (2000). Fukuyama, (1993) noted that classical economists of the Nineteenth Century have paid attention to the roles of financial intermediation in running the wheels of economic growth smoothly. For instance, Basher (1995) quoting Bagehot (1991) gave explicit examples of how money market developments in England could make capital flows across the country in search of the highest rate of return. But in ordinary countries this is a slow process, and some persons who want to have ocular demonstration of abstract truths have been inclined to doubt it because they could not see it.

Contrary to these models, the traditional Arrow-Debreu model theory of resource allocation stated that firms and households interact through markets and financial intermediaries (banks) play no role. This theory states that when markets are perfect and complete, the allocation of resources is Pareto efficient and there is no scope for intermediaries to improve welfare. Moreover, the Modigliani-Miller theorem applied in this context asserts that financial intermediation does not matter in the growth and development of the real sectors: households can construct portfolios which offset any position taken by an intermediary and intermediation cannot create value, (Fama, 1980). A traditional criticism of this standard market-based theory is that a large number of credit facilities are needed for it to hold except in special cases. However, the development of continuous time techniques for option pricing models and the extension of these ideas to general equilibrium theory have negated this criticism. Dynamic trading strategies allow markets to be effectively complete even though a limited number of facilities exist. Such an extreme view - that financial markets allow an efficient allocation and that intermediaries have no role to play- is clearly at odds with what is observed in practice. Historically, banks as major financial intermediaries have played a central role in the growth and development of the real sectors. This appears to be true in virtually all economies except emerging economies which are at a very early stage. Even here, however, the development of intermediaries tends to lead the development of financial markets themselves, hence the real sector, (McKinnon, 1973). In short, banks have existed since ancient times, taking deposits from households and making loans to economic agents mainly the real sectors requiring capital.

In contrast, financial markets have only been important recently, and then only in a few countries, primarily the UK and the US. Even there, banks have played a major role in the transferring of savings from the household sector into investments in the real sectors. As already noted above, our understanding of the role or roles played by banks as intermediaries both in the financial sector and real sector is found in the many and varied models in the areas known as intermediation theories. These theories of intermediation have built on the models of resource allocation based on perfect and complete markets. Knowing this fact would be of great important in understanding intermediation role of banking industry in moving the economy forward. Gurley and Shaw (1960) and many subsequent authors have stressed the role of banking industry credit in transforming the real sectors.

Method

The research design adopted in this study was ex-post facto design and this represents a realistic and feasible process of investigations aimed at achieving a systematic application of scientific method of examinations of research objectives and hypotheses. In this case, the researcher simply analyzed reported statement of account of the study variables extracted from Central Bank of Nigeria (CBN) and Nigerian Deposit Insurance Corporation (NDIC) publications.

Scope of the study

The study is on the evaluation of the impact of intermediation role of banking industry on the performance of the real sectors of the Nigerian economy from 2005 to 2013. It examines the impacts of banking sector credits on the sampled real sectors of the economy- manufacturing. We restricted our discussion to the mainstream banks operating in Nigeria from 2005 to 2013, eight years after consolidation saga and focused on the impact of credits extended to the real sectors of the economy. In this study, banks credits excluded those of non-deposit banks/financial institutions, specialized banks and development banks. However, for all intents and purposes, the deposit money banks constitute the hub of the banking industry, and in fact, the financial services industry. The size of the banking market can be proxy by the size and volume of loans and advances extended by the banks to the real sectors. Hence, deposit money banks simply referred to in this study as banks formed our main focus in this study.

Specification of models

In specifying the models of our relationship the following alphabets are used to denote their respective variables:

GDP = Y

GDP - Y = F (CR) 1

$Y = X0 + X_1CR + U$ 2

Where: **Y** is Gross Domestic Product (GDP) of the economy

CR is the deposit money banks credits and advances to the economy

U is the error or disturbance term

$Y_m = m_0 + m_1CR_m + U$ 3

Where: **m** is manufacturing component of the GDP

$\mathbf{CR_m}$ is the banks credits and advances to the manufacturing sector

U is the error or disturbance term

Techniques of Data Analysis

Parametric statistics in forms of analysis of variance-ANOVA, t-test, co-efficient of correlation and simple linear regression were used to analyze the hypothesis.

Results
The calculations of the hypothetical test data
Table 1 Regression Descriptive Statistics of the Hypothesis of the Study

	Mean	Std. Deviation	N
Manufacturing Component of GDP	362078.200	152577.480	8
Banks credits and advances to the manufacturing sector	1216609.52	765303.989	8

Correlations (a)

		manufactng component of GDP	Bank credits & advances to the sector
Pearson correlation	Manufacturing component of GDP	1.000	0.741
	Banks credits and advances to the manufacturing sector	0.741	1.000
Sig.(1-tailed)	Manufacturing component of GDP	.	0.011
	Banks credits and advances to the manufacturing sector	0.011	.
N		8	8

Model Summary (b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.741(a)	0.549	0.484	109601.15791	0.915

** Predictors: (Constant), Banks credits and advances to the manufacturing sector
* Dependent Variable: Manufacturing component of GDP

ANOVA (b)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10215220415.3	1	10215220415.3	8.504	.02(a)
	Residual	84086896703.2	7	12012413814.7		
	Total	94302117118.5	8			

** Predictors: (Constant), Banks credits and advances to the manufacturing sector
* Dependent Variable: Manufacturing Component of GDP

Coefficients (a)

Model		Un-standardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	182441.7	71619.754		2.547	.04
	Banks Cr to the sector	0.148	0.051	0.741	2.916	.02

a Dependent Variable: Manufacturing Component of GDP
$Y = 182441.069 + 0.148CR_m$
(t= 2.916)
Using the computed results as shown above, the resultant equation is:
$Y = 182441.069 + 0.148CR_m$ and (t = 2.916)
Where, Y = Manufacturing Component of GDP
CR_m = Banks credits and advances to the manufacturing sector
R = 0.741
R^2 = 0.549
$\check{R}^2$ = 0.484
F = 8.504
DW = 0.915

From the above model, manufacturing component of GDP is influenced by the summation of the constant 182441.7 with the product of 0.148 and banks credits and advances to the manufacturing sector. With a regression sum of squares (10215220415.3) that is greater than the residual sums of squares (84086896703.2), more of the variation in manufacturing component of GDP is explained by the model. Furthermore, the significance value of the F statistic (0.02), which is lesser than 0.05, indicates that the variation explained by the model is not due to chance.

The regression coefficient of 0.741 indicates a strong positive relationship between manufacturing component of GDP and banks credits and advances to the manufacturing sector. *The R Square* value (0.549), which is the coefficient of determination, shows that only 54.9% of the variation in *manufacturing component of GDP* is explained by the model.

The Durbin-Watson statistic of 0.915 which does not tend to 2 indicates there is an autocorrelation. The sign of the coefficient of credits from deposit money banks to manufacturing sector is positive, satisfying a priori expectation and the impact is significant (as the calculated t-value of 2.916 is more than 2). We can however reject the null hypothesis and accept the alternative hypothesis which posits that banks credits and advances to the manufacturing sector have significant effect on the component GDP of the sector.

Summary of Findings

1. The volume of bank credits and advances to the real sector of the economy is positively related to the GDP growth rate of the economy.
2. Banks credits and advances to the manufacturing sector have positive significant effect on the component GDP of the sector.

Discussion of Findings

The main findings regarding the significant effects of bank credits and advances on the component GDP of the economy and that of the manufacturing sector suggest that banks credits and advances to the real sectors has a strong significant positive impact on the performance of the economy. This is an indicative that the CBN's determination to encourage banks to mobilise and deploy enough funds to the real sectors as means to promote economic growth and development is well appreciated by the sector. In a similar research papers, Hunter (1982), Allen and Anthony (1998) and Lucas (1990) hold the view that the banking industry plays a crucial role in the mobilization of capital for industrialization and development. They have argued that intermediaries overcome real sectors finance problems by acting as "suppliers of loan-able funds." Many others followed in expanding on these three contributions and advancing the literatures in substantive ways. Such include the works of Jensen and William (1976), McCauley and Rama (1997:90), Boyd and Prescott (1986), Milton (2001), Levine (1996) and Carey (1998). Their findings are in agreement with the finding of the present study which revealed that the volume of credits and advances to the real sectors of the economy is positively related to the GDP growth rate of the economy.

The paper posits further that intermediation roles of banks are inevitable funnels and are necessarily sufficient tools for financial stability for sustainable real sectors growth and development and this confirms Diamond and Rajah (2004) and Meshach (2005) postulations. They affirmed that for the real sectors to survive and perform effectively there must be investment which is synonymous with funding; hence the banking industry becomes a very relevant funnel to actualize such.

Conclusion

However, there are plausible indications that the performance of the real sector and the volume of banks credits and advances to the sector have positive relationships with the overall economic growth and development of the Nigerian economy. Therefore, in order to maximize the benefits of these intermediations, CBN should consider the option of encouraging healthy competition in the industry via comprehensive banks- public-friendly reforms. The paper concludes that banking sector is becoming more competitive in their intermediation roles as consolidation reform has created an atmosphere where many banks simply cannot afford to have weak balance sheets and inadequate corporate governance.

Recommendations

The study recommends that CBN should continue to collaborate with all the stakeholders in the financial sector to ensure that any bank reform to be introduced in the banking industry must be market driven to allow for healthy-competition and efficient intermediation process necessary for improved real sector GDP growth rate. Again, banks should ensure that their intermediation roles in the financial market must be market driven to allow for wide scope of coverage and accessibility by the bank-less rural dwellers. The paper posits further that Researchers should begin to develop a new framework for banking industry stability as needed for empowerment of the entire sectors of the economy as to meet up in the on-going business and financial globalization.

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