British Journal of Marketing Studies
Vol.3, No.9, pp.49-56, December 2014
Published by European Centre for Research Training and Development UK (www.eajournals.org)

DETERMINANTS OF FINANCIAL INTERMEDIATION AND ITS IMPLICATIONS ON ECONOMIC GROWTH IN NIGERIA

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ABSTRACT: *The main objective of this study is to investigate the effect of financial intermediation on economic growth in Nigeria. The study made use of ordinary least square regression analysis. The study shows that interest rate margin has significantly impacted on economic development in Nigeria, that credit to private sector has significantly impacted positive on the development of Nigerian economy and that the level of lending rate over the years has impacted negatively on economic growth in Nigeria. The policy implication is that improper management of financial intermediation will help the economy to develop. This means that there is significant and positive effect of financial intermediation on economic growth in Nigeria. We therefore recommend that Nigerian government should ensure that a component analysis of the real sector of the Nigerian economy be carried out with a view to having a better understanding of the inverse relationship between the loans to the private sector and the performance of Nigerian economy through financial intermediation.*

Keywords: Financial Intermediation, Economic Growth, Regression, Interest Rate Spread, Credit to Private Sector.

INTRODUCTION

The role of financial intermediation on development of both developed and developing theory has generated a lot of debate in literatures of finance. Financial intermediaries through the process of financial intermediation mobilize deposits from depositors/savers and allocate credit facilities to borrowers/investor for investments that will lead to economic development. Economic development comprises the activities private and public sector which need bank credit to expand and grow their business. Mahmood and Bilal (2010) opined that the rising magnitude of financial intermediation costs have adverse implications on the development of Nigerian economy because in the absence of developed capital market, the private sector which contributes a greater percentage to economic development in Nigeria will primarily depend on bank credit as a source of financing their investments which will lead to economic development. This means that the constant rise of financial intermediation discourages potential savings due to low returns on deposits.

Financial intermediation is an institution that facilitates the channeling of funds between lenders and borrowers indirectly. That is, savers (lenders) give funds to an intermediation institution (such as a bank), and that institution gives those funds to spenders (borrowers). Andrew and Osuji (2013) state that financial intermediation involves the transformation of mobilized deposits liabilities by banks into banks assets or credits such as loans and overdraft.This means that financial intermediation is the process of taking in money from depositors and lending same to borrowers for investments which in turn help the economy to

ISSN 2055-0219(Print), ISSN 2055-0227(online)

grow. Efficient financial intermediation causes high level of employment generation and income which invariably enhances the level of economic development.

The economic growth as a proxy of Gross Domestic Product (GDP) is one of the primary indicators used to gauge the health of a country's economy. It represents the total dollar value of all goods and services produced over a specific time period looking at the size of the economy. Usually, GDP is expressed as a comparison to the previous quarter or year. For example, if the year-to-year GDP is up 3%, this is thought to mean that the economy has grown by 3% over the last year. The GDP value of Nigeria represents 0.39 percent of the world economy. GDP in Nigeria is reported by the World Bank. The gross domestic product (GDP) measures the national income and output for a given country's economy. The gross domestic product (GDP) is equal to the total expenditures for all final goods and services produced within the country in a stipulated period of time. GDP is expected to have positive impact on stock market returns in Nigeria (IMF, 2012). Despite the removal of restrictions militating against efficient financial intermediation through various financial reforms; lending rate has remained persistently high while credit to private sector has remained low.

In addition to these, Onodugo, Anowor and Kalu (2013) opined that financial intermediation play a very vital role in economic development in Nigeria. For financial intermediation to aid development, there must be an efficient financial system. This means that financial intermediation mitigates the costs associated with information acquisition and the conduct of financial transactions through the level of lending rate and credit to private sector in accelerating development in an economy.

Based on the forgoing analysis on the relationship between financial intermediation and economic development problem, this study is considered pertinent in relation to the scenario in Nigeria. This study, therefore, has the focus of investigating the effect of financial intermediation on economic development in Nigeria.

Recently, the impact of financial intermediation on the development of an economy generated a heated debate. While some studies opined that financial intermediation drives economic development (Odedokun, 1998; Nieh, 2009; Islam and Osman, 2011), others have argued that economic development drives financial intermediation. However, Odhiambo (2011) argued that a bi-directional causality exists between financial intermediation and economic development. This study seeks to contribute to the body of literature by examining the effect of financial intermediation on economic development in Nigeria.

REVIEW OF RELATED LITERATURE

Concept and Nature of Financial Intermediation

To ensure that investible funds are made available for economic activities, social and community services sector inclusive in the urban and rural areas and the quest for overall development of the economy informed the decision of financial system focusing more financial intermediation. Financial intermediation is typically an institution that facilitates the channeling of funds between lenders and borrowers indirectly. That is, savers (lenders) give funds to an intermediary institution (such as a bank), and that institution gives those funds to spenders (borrowers). Gorton and Winton (2002) define financial intermediaries as firms that borrow consumers/savers and lend same to companies that need resources for investment.

ISSN 2055-0219(Print), ISSN 2055-0227(online)

Financial intermediaries can be classified into institutional investors, pure intermediaries like investment banks and Deposit Money Banks. Among all the financial intermediaries, banks are the major financial intermediaries that accept deposits and make loans directly to the borrowers (Quilym, 2012).

Mahmood and Bilal (2010) opined that the rising magnitude of financial intermediation have adverse implications on the growth of Nigerian economy because in the absence of developed capital market, the private sector which contributes a greater percentage to economic growth in Nigeria will primarily depend on bank credit as a source of financing their investments which will lead to economic growth. This means that the constant rise of financial intermediation discourages potential savings due to low returns on deposits, and ultimately reduces lending activities and investment potential of investors as a result of high cost of funding (Ndung'u and Ngugi, 2000; Mahmood and Bilal, 2010). Financial intermediation involves the transformation of mobilized deposits liabilities by financial intermediaries such as banks into bank assets or credits such as loan and overdraft. It is simply the process whereby financial intermediaries take in money from depositors and lend same out to borrowers for investment and other economic development purposes (Andrew and Osuji, 2013). According to Acha (2011), financial intermediation is a system of channeling funds from lenders (economic surplus unit) to borrowers (economic deficit unit) through financial institutions.

Empirical Review

There have been numerous studies on the effect of financial intermediation on the long run economic growth. But, there is no consistent evidence for a significant effect of financial intermediation on economic development in Nigeria looking both positive or negative direction. Results and evidence about the effect of financial intermediation differs by country, methodology used and the area covered.

Tonye and Andabai (2014) examined the relationship between financial intermediation and economic growth in Nigeria. The methodology used was vector error correction model. The study found that there is long run relationship between financial intermediation and economic growth. The study concluded that about 89% of the variations in economic growth in Nigeria are explained by changes in financial intermediation variables. This study does not consider effects of financial intermediation on economic development using credit to private sector, lending rate and interest rate margin as independent variables in the country.

Basher (2013) examined the linkage between open markets, financial sector development and economic growth to know if markets along with financial sector development affect economic growth in Nigeria. The study made use of Granger causality test, Johansen co-integration test and vector error correction model. It was found that the causation between open markets, financial sector development and growth in Nigeria is weak and insignificant, and such cannot be used to forecast economic growth in Nigeria. This study also does not consider effects of financial intermediation on economic development using credit to private sector, lending rate and interest rate margin as independent variables in the country.

Haruna (2012) investigates the determinants of cost of financial intermediation in Nigeria's Pre-consolidated banking sector using 13 banks quoted on the Nigerian Stock Exchange. The study made use of panel data regression models. It was found that operating expense and loan loss provision accounts for greater variation in commercial banks financial intermediation

ISSN 2055-0219(Print), ISSN 2055-0227(online)

cost. This study does not consider effects of financial intermediation on economic development using credit to private sector, lending rate and interest rate margin as independent variables in the country.

Idries (2010) investigated the cost of financial intermediation in Jordan from 2000 to 2008. The study made use of random effects estimation approach. The study indicates that high and increasing financial intermediation cost are derived from efficiency level complimented by capital adequacy ratio and loan to total asset ratio. This study does not consider effects of financial intermediation on economic development using credit to private sector, lending rate and interest rate margin as independent variables in the country.

Beck and Hesse (2006) investigate why financial intermediation cost is high in Uganda. The study made use of a unique bank level data set on the Uganda banking system over the period 1999 to 2005. The study found that bank level characteristics, such as bank size, operating costs and composition of loan portfolio affects financial intermediation cost. The study also found that financial intermediation costs have no robust and economic significant relationship with foreign bank ownership, market structure and bank efficiency in Uganda. This study does not consider effects of financial intermediation on economic development using credit to private sector, lending rate and interest rate margin as independent variables in the country.

Theoretical Framework

This study was anchored on two theoretical frameworks namely: Concentration theory and Endogenous growth theory. Concentration theory explains how few large dominant banks can use their market power to improve the intermediation efficiency of banks through economies of scale, cost reduction and reduction in credit risk. While the endogenous growth theory offers useful link through which accumulated savings (deposits) held by banks are channeled to productive investments (through lending activities) for economic development.

METHODOLOGY

The data used in this study was secondary sources of data which were generated from Central Bank of Nigeria and various Academic Journals in related areas. The data that have been generated were analyzed and interpreted using relevant statistical formulations based on the objectives of the study. Objectives of the study was tested with the use of error correction model, co-integration test and graph.

The general equation for ordinary least square model (OLS) and Co-integration test is $Y_t = \beta_0 + \beta_1 X_{1t} + \ldots + \beta_n x_{nt} + \mu_t$.

Where

$\mathbf{Y_t}$ is the dependent variable,

β_0 is the intercept term,

β_1 is the regression coefficient,

$\mathbf{X_t}$ is a set of explanatory variables

ISSN 2055-0219(Print), ISSN 2055-0227(online)

British Journal of Marketing Studies
Vol.3, No.9, pp.49-56, December 2014
Published by European Centre for Research Training and Development UK (www.eajournals.org)

μ_t is the error term.

We therefore re-specify the model above to capture the objective of our study.

GDP = f(CPS, LR, IRM). Where GDP is gross domestic product, CPS is the credit to private sector, LR is the lending rate and IRM is interest rate margin. We expected to have positive effect of independent variables on dependent variable.

$GDP_t = \beta_0 + \beta_1 CPS + \beta_2 LR + \beta_3 IRM\ \mu_t$

Analysis of Empirical Result

Sample (adjusted): 2001 2014
Included observations: 14 after adjustments
Trend assumption: Linear deterministic trend
Series: GDP IRM CPS LR
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.964781	79.39026	47.85613	0.0000
At most 1 *	0.756810	32.54382	29.79707	0.0035
At most 2	0.593979	21.74906	15.49471	0.0043
At most 3	0.009252	6.130138	3.841466	0.0003

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Considering the table 1 above, there is a long run relationship between dependent variable (GDP) and the independent variables (CPS, LR and IRM) within the period under review 1999-2014.

Dependent Variable: GDP
Method: Least Squares
Sample: 1999 2014
Included observations: 16

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	43585.34	7264361.	4.202858	0.0012
IRM	2083163.	268554.8	7.756937	0.0000
CPS	529040.9	99951.69	5.292967	0.0002
LR	-2989719.	402043.0	-7.436316	0.0000

R-squared	0.981658	Mean dependent var	21112308
Adjusted R-squared	0.973496	S.D. dependent var	14533711
S.E. of regression	2647195.	Akaike info criterion	32.62822

ISSN 2055-0219(Print), ISSN 2055-0227(online)

Sum squared resid	8.41E+13	Schwarz criterion	32.82136
Log likelihood	-257.0257	Hannan-Quinn criter.	32.63811
F-statistic	146.7132	Durbin-Watson stat	1.509259
Prob(F-statistic)	0.000000		

Sources: Authors Computation 2015

The above table displays a regression result of the effect of financial intermediation on economic development in Nigeria. As specified above, the results were obtained using the Ordinary Least Square (OLS) method of estimation which test for the short run equilibrium dynamics of the variables. From the empirical evidence, we can infer that the coefficient of the regression which is the coefficient that depicts the estimated coefficient appears to be good while standard error and the values of t-statistic have been shown.

The results of other important statistical tools revealed that: the coefficient of determination (R^2) as used to measure the success of the regression in predicting the value of the dependent variable within the sample and tests the goodness of fit, which is considered high in this study over 98%; the adjusted R-square, the Durbin-Watson statistic, and the entire regression test is statistically significant including the F-test. All results were obtained empirically and the test was conducted at five percent level of significance.

The result also indicates that the level of financial intermediation (credit to private sector, lending rate and interest rate margin) over the years have significant positive effect on economic development in Nigeria.

A close examination at the result of the equation reveals that some signs were not in line with the opinion expectation in literature review. From the result, GDP, CPS, LR and IRM satisfy one condition by having positive sign while none of the variables used has negative sign. This means that the independent variables are in line with the opinion expectation in the model.

From the result, the difference in beta coefficient of the variables representing the financial intermediation shows different contributions to the economic growth in Nigeria (GDP). In this result, using the beta coefficient, GDP is positive at constant of 435385.34. This means that when all variables are held constant, there will be a positive variation up to the tune of 435385.34 units in GDP. Similarly, a unit change or decrease in financial intermediation will lead to a increase in GDP by 45.67321 and 65.76315 units respectively. This means that there is significant and positive effect of financial intermediation on economic development in Nigeria.

From the table two above, the regression coefficient of credit to private sector (CPS) in GDP is 529040.9 and its P-values are 0.0002. The OLS equation in appendix 3 shows that CPS has a positive and significant impact on economic development in Nigeria. The positively signed coefficient of CPS is in conformity with the a priori expectation. The regression coefficient of lending rate (LR) in GDP is -2989719 and its P-values are 0.0000. The OLS equation shows that LR has a negative and significant impact on economic development in Nigeria and that the regression coefficient of interest rate margin (IRM) in GDP is 2083163.0 and its P-values are 0.0000. The OLS equation shows that IRM has a positive and significant impact on economic development in Nigeria.

From our finding, we understand that there have been numerous studies on the impact of financial intermediation in the long-run of economic growth. But, there is no consistent

ISSN 2055-0219(Print), ISSN 2055-0227(online)

evidence for a significant effect of financial intermediation on economic growth in Nigeria, both in positive or negative direction. Our empirical results and evidence about the effect of financial intermediation on economic development differ by country, methodology used and the area covered. This means that none of the study used the variables we used in arriving at conclusion.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study contributes to the literature on the effect of financial intermediation on economic development in Nigeria by using ordinary least square estimate. This study set three objectives and actually achieved them. From the research findings, the study concludes that there is long run relationship between credit to private sector, lending rate, interest rate margin and economic growth in Nigeria. The study found that from 2004 to 2007, the period recorded the highest average annual growth rate in loan disbursement to the private sector, yet the same period recorded the worst average annual growth rate in the manufacturing capacity utilization rate.

From the research findings, the results obtained from this study support both theoretical and empirical evidence that financial intermediation has impacted positively on the development of Nigerian economy. The study concludes that there is significant and positive effect of financial intermediation on economic development in Nigeria.

Recommendations

From the finding of this study, the following recommendations were made:

1. Nigerian government should ensure that a component analysis of the real sector of the Nigerian economy be carried out with a view to having a better understanding of the inverse relationship between the loans to the private sector and the performance of Nigerian economy through financial intermediation.

2. Central Bank of Nigeria should check mate banks from possessing excess liquidity that would ensure the prevention of inflation in the economy.

3. There should be a regulatory frame work that will enable the financial institutions to channel their resources to the most viable sector of the economy so as to increase the level of economic development.

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ISSN 2055-0219(Print), ISSN 2055-0227(online)