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Effect of real sector finance on banking sector depending

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Abstract

This research work is on the effect of real sector finance on banking sector depending. The study focus on three specific objectives; real sector savings on banking sector deepening, interest paid on loan by real sector on banking sector deepening, transaction cost incurred by real sector on banking sector deepening. In line with this objectives, hypothesis were formulated in their null form. The study is anchor with economic development theory by schumpeters. An expo-factor design was adopted for the study, time series data for five years (2012-2016) were retrieved from CBN statistical bulletin. Data collected were analyzed using OLS regression techniques. The study revealed that real sector savings as a significant effect on banking sector deepening ($\beta 07, t = 1.906, p<0.05$), interest on loan paid by the real sector has a significant effect on the banking sector deepening ($\beta = .522, t = 2.911, p<0.0,$), and cost on transaction as incurred by the real sector has significant effect on the banking sector deepening ($\beta = .517, t = 2.100, p<0.05$) using money supply (MS) as a proxy. The study concluded that; real sector is pivotal tool for banking sector deepening, hence the contribution of real sector on the growth and development of the banking sector cannot not exaggerated.

Keywords: deepening, contribution, techniques

1. Introduction

The real sector is a major segment of the economy because activities in the sector influence economic productivity. It is constituted by economic agents that contribute to a nation's Gross Domestic Product (GDP). The sector is crucial for economic sustainability due to its productive capacity to meet aggregate demand in the economy. Anyanwu (2010) [1] is of the opinion that the real sector plays an important role in capacity building and employment generation. The real sector performs better in the presence of a developed financial sector; hence, financial sector development is a catalyst for growth in the real sector. The exigency for financial sector development for growth in the real sector arises from the notion that a well-developed financial sector can optimally allocate funds to the real sector to exploit investment opportunities.

Financial sector development connotes an improvement in the ability of financial institutions to provide financial services. Innovation and development of new financial services paves way for both investors and savers to take advantage of new opportunities (Calderón & Liu, 2012). Schumpeter (1911) [24] states that services provided by financial institutions are required by entrepreneurs to promote technological innovation and economic growth. There are two schools of thought on the nexus between the financial and real sectors of an economy. The first school of thought (supply-leading hypothesis) founded on the view of Schumpeter (1911) [24] suggests that financial services are created in expectation for demand for them by the real sector while the second school of thought (demand-following hypothesis) pioneered by Robinson (1952) [21] argues that the demand for financial services by the real sector prompts financial institutions to create them. In other words, the former argues that financial sector development precedes real sector growth while the latter says reverse is the case.

The Central Bank of Nigeria (CBN) classifies the real (activity) sector in Nigeria into agricultural, industrial, building and construction, wholesale and retail trade and services sectors. The aggregation of production output from these sectors reflects the growth level in the Nigerian economy and can be used as a yardstick to judge economic performance. Investors in these sectors often seek financial succour from the financial sector to boost production and increase yields. Studies in Nigeria such as Odediran and Udeaja (2010) [14]; Onwumere, Ibe, Ozoh and Mounanu (2012) [17]; Oriavwote and Eshenake (2014) [18] have concentrated on the impact of financial development on overall growth in the economy without serious attention given to the impact of the real sector to the financial sector.

Financial deepening is to improve economic conditions through increased competitive efficiency within financial markets thereby indirectly benefiting non-financial sectors of the economy. Financial deepening also helps in increasing the provision and choices of financial services which would come through its financial infrastructure. Nzotta and Okereke (2009) [13], ascertain that financial deepening is the ability of financial institutions in an economy to effectively mobilize savings for investment purposes. Financial deepening vigorously attracts the reservoir of savings and idle funds and allocates same to entrepreneurs, business, households and government for investments projects and other purposes with a view of returns which forms the basis for economic growth.

The real sector is a constituent of the economy which consists of individuals and corporate entities that engage in activities aimed at producing goods and services to satisfy public demand. According to Sanusi (2011) [23], the real sector is where production of goods and services take place through the combined use of raw materials and factors of production and it is the driving force of the economy. The output of the real sector indicates the level of productivity in the economy. When the production capacity of the real sector increases, the economy experiences growth. In order to ensure that the real sector operates at its full potential, there must be an efficient financial sector to support it (Sanusi, 2011) [23]. The performance of the real sector is a gauge to compare progress between nations.

The financial sector is the largest in the world in terms of earnings (Sutton & Jenkins, 2017). It is the most regulated due to its economic relevance and acts as a backbone for other sectors in the economy. The primary role of this sector is to move funds from the surplus units or idle users of funds to the deficit units. The financial sector transforms savings mobilized into credit. It ensures that savings are allocated optimally for investment. Aderibigbe (2014) [3] argues that the financial sector facilitates business transactions and economic development. The financial sector comprises of the money and capital markets. The money market otherwise called the banking sector and it is an avenue to seek funds on a short-term basis. The capital market on the other hand is a market where investment securities are being traded and funds are allocated on long-term basis. Nzotta (2004) [12] observes the banking sector in Nigeria is dominant and the most vibrant sector of the financial sector and difficulties experienced in the sector affects the economy at large. It is therefore germane to provide empirical evidence on how real sector financing influences the banking sector deepening.

Over the past few decades, banking sector deepening has attracted significant attention from finance and development experts and has been debated extensively. This debate was based on inability of the banking sector to create and expand liquidity, mobilize savings and promote the growth of an economy. Calderón and Liu, (2002) [6], argued that the banking sector development is a catalyst for growth in the real sector. Banking sector deepening plays an important role in determining the growth of an economy. It broadens its resource base, raises the capital needed to stimulate investment through savings and credit, and boost the overall productivity. Odiambho (2014), economic growth in Nigeria, as a result of financial deepening has been fluctuating over the last decade with rate as low as 0.5 in 1999.

Therefore, it is of importance to assess the real sector finance on banking sector deepening in Nigeria. The Nigeria economy is one of the largest in Africa, but empirical research have given little emphasis on the nature of real sector finance on banking sector deepening bearing in mind the recent downturn in the financial market and how it affects the economy, and this have generated a lot of controversies and further research needs to be carried out on the relationship between the real sector finance and banking sector deepening in Nigeria. It is against this back drop, this study seeks to examine the effect of real sector finance on banking sector deepening. The main objective of this study is to examine the effect of real sector finance on banking sector deepening. The specific objectives are; to examine the effect of real sector savings on banking sector deepening, to examine the effect of interest on loan paid by real sector on banking sector deepening and to examine the effect of real sector transaction cost on banking sector deepening.

2. Literature Review

Empirical Review

Studies showing evidence on the interaction of real sector finance and financial sector deepening. Oriavwote and Eshenake (2014) [18], in their study financial sector development on real sector productivity. The study adopted the expo-factor design, annual time series data are retrieved from CBN statistical bulletin. Data collected were analyzed using OLS regression analysis. They observed that financial sector development has a remarkable improvement through the real sector, because of the statistical irrelevance of interest on credit to the real sector. Their study is limited to interest on credit, while real sector savings is not considered.

Aliyu and Yusuf (2013) [4] carried a study on the relationship between real sector and financial sector. The study employed a cross-sectional design. The findings revealed with the aid of Ordinary Least Square (OLS) technique that financial sector development has remarkable impact on real sector growth. However, credit allocated to the real sector wields a significant impact while liquid liabilities and the size of financial intermediaries exert significant positive influence.

Aizenman, Pinto and Sushko (2013) [5] examined how the cycles of financial contraction and expansion influence the economy through the effect on 8 real economic sectors in 28 countries from 1960 to 2005. Time series data for the period was collected, data were analyzed using regression model. The study reported that financial contractions have a higher tendency to follow periods of accelerated growth and many of the real sectors are negatively affected by financial contractions but not improved by financial expansions.

Gounder (2012) [10] appraised the impact of financial sector development on real sector over the period 1970 – 2005. The study adopted the expo-factor design, annual time series data were used. Data collected were analyzed using OLS regression analysis. Who put forward that financial sector development have substantial link with the real sector via transactions.

Udoh and Ogbuagu (2012) [26] using an autoregressive distributed lag (ARDL) approach examined the relationship between financial sector development and industrial production between 1970 and 2009. The study discovered that financial sector development have significant adverse effect on industrial production.

Samsi, Yusof and Cheong (2012) [22] investigated how the financial and real sectors interact in Malaysia during the period 1986Q1 to 2011Q4. The study adopted the expo-factor design, annual time series data were used. Data collected were analyzed using OLS regression analysis. The findings show that real sector output has strong association with the real sector and the banking sector is the major contributor to output growth.

Onwumere, Ibe, Ozoh and Mounanu (2012) [17] assessed the impact of financial deepening on real sector growth in Nigeria between 1992 and 2008. The study employed a cross-sectional design. 16 years' time series data were collected from central bank statistical bulletin. The findings revealed with the aid of Ordinary Least Square (OLS) technique. The study found that broad money velocity and stock market liquidity foster real sector growth while money stock diversification, economic volatility and market capitalization failed to promote growth.

Dehkordi, Sameti and Dehkordi (2012) [8] carried out a study on the interaction of real sector and financial sector. The study adopted empirical design, using the economic development theory by Shumpeter and Robison. They found weak evidence in support of supply-leading response in Iran between 1981 and 2010 and suggested that no causality exist between the financial and real sectors.

Monnin and Jokipii (2010) [11] conducted a study on the link between the banking sector and real sector growth. The study adopted the expo-factor design, annual time series data are retrieved from CBN statistical bulletin. Data collected were analyzed using OLS regression analysis. They found in a sample of 18 Organisation and Economic Cooperation Development (OECD) countries that there is a positive link between banking sector stability and real output growth. It was also discovered through Fed forecast errors that banking sector stability (instability) results in a significant underestimation (overestimation) of GDP growth in the successive quarters.

Odediran and Udeaja (2010) [14] carried out a study on the interdependent of the real sector and financial sector. The study adopted the expo-factor design, annual time series data used. Data collected were analyzed using OLS regression analysis. Findings revealed that financial and real sector relate interdependently with each other. They suggested that the causal link between financial sector development and real sector growth, real sector savings is responsive to the choice of financial sector development index and the demand-following response tends to prevail in Kenya.

Sendeniz-Yüncü, Akdeniz and Aydoğan (2006) [25] evaluated whether credit-view hypothesis holds in 11 OECD countries from 1987Q1 to 2003Q3. The co-integration tests revealed that the banking sector and real sector are related in the long-run in all countries. The Granger causality tests provide strong evidence of the credit-view hypothesis (i.e. banking sector lead real sector) in some countries while no causality between both sectors in other countries.

Calderón and Liu (2002) [6] studied real sector and financial deepening, the study adopted the expo-factor design, and annual time series data were used. Data collected were analyzed using OLS regression analysis. Findings showed that financial deepening drives growth of 109 economies comprising both developing and industrial via two channels namely rapid capital accumulation rate and productivity growth, with the channel of productivity growth being the strongest.

Theoretical framework

Economic development theory by Schumpeter (1911) [24]: Schumpeter states that services provided by financial institutions are required by entrepreneurs to promote technological innovation and economic growth. There are two schools of thought on the nexus between the financial and real sectors of an economy. The first school of thought (supply-leading hypothesis) founded on the view of Schumpeter (1911) [24] suggests that financial services are created in expectation for demand for them by the real sector while the second school of thought (demand-following hypothesis) pioneered by Robinson (1952) [21], argues that the demand for financial services by the real sector prompts financial institutions to create them. In other words, the former argues that financial sector development precedes real sector growth while the latter says reverse is the case. The linkage between the financial sector and the real sector can be explained with this two contrasting views namely supply-leading response and demand-following response. The supply-leading response suggests that financial sector development drives the real sector of the economy (Odhiambo, 2008). The supply of financial services creates the impetus for enterprises in the real sector to demand for them which resultantly causes growth in the real sector. Productivity in the real sector can be enhanced through the creation of an efficient financial market which is the consequence of financial sector development (Shan & Jianhong, 2006). According to Patrick (1966) [19], financial sector leads the real sector and promote real sector growth by transferring limited financial resources from small savers to large investors with respect to relative rate of return.

The demand-following response argues that the real sector drives the financial sector. Financial sector development arises from growth in the real sector (Arestis & Demitriades, 1997) [2]. This indicates that causation flows from the real sector to the financial sector. According to Odhiambo (2009) [16], real sector development encourages the demand for financial services, which are passively met by the establishment of new financial institutions. This theory is relevant to the study, hence it shows the relationship that exist between the real sector and the financial sector, it further explained the benefits of the real sector from the financial sector and explain how the growth of the financial sector dependent on the development of the real sector.

3. Methodology

Design and Data Source

This study employed the ex-post facto design. This method was suitable for this research because it is not possible to directly manipulate or control any of the independent variables because the events have already taken place and therefore the research is being conducted after the fact (Emaikwu, 2011). Data was gathered for a five-year period from the CBN Statistical Bulletin and National Bureau of Statistics, which ensure availability of data for the covered period (2012-2016).

In line with past studies this study used a measure of banking sector deepening "Money Supply" (MS) as dependent variables, while Real Sector Savings (RSS), Real Sector Interest on Loan (RIL) and Real Sector Transaction Cost (RTC) form our independent variables.

Model Specification

Operationalization of Variables

The model for this study is:

$$MS = f\,(RSS, RIL, RTC,)$$

Meanwhile, the econometric form of the model is:

$$MS = \beta_{0+}\ \beta_1 RSS + \beta_2\ RIL + \beta_3 RTC + \mu$$

Where;

MS = Money Supply

RSS = Real Sector Savings

RIL = Real Sector Interest on Loan

RTC = Real Sector Transaction Cost

μ = Error term

MS is the dependent variable while RSS, RIL, and RTC are the independent variables.

Operationalization of Variables

Money Supply: Money supply is the sum of all the money holdings of all the members of the society, this is currencies in circulation outside the deposits held in banks. Broad measure of money supply includes savings and time deposit, interest on loan and cost on transaction. They can be converted into cash in short notice by commercial banks and used to carry out financial transactions.

Savings: These are income not spent, or deferred consumption. Method of savings include putting money inside a deposit account, pension account and investment fund. Savings in this context looks at money not spent by the real sector, but deposited in the banking sector

Interest on loan: Is the percentage of loan paid by borrowers to lenders. For most loans, interest is paid in addition to principal repayment, and it is usually set by the monetary authority. Interest rate considered the percentage paid as interest on loans by the real sector to the banking sector.

Transaction Cost: refers to a fee that a bank or other financial intermediary charge on services they rendered to the real sector or their client.

3.3 Data Analysis

The obtained data was analyzed using OLS regressive. This analysis is used to assess the nature and degree of relationship between the dependent variable and a set of independent or predictor variables (Pallant, 2007) [20]. SPSS Version 21 will be used to run the analysis

4. Results and Discussion

Test of Hypothesis

Hypothesis 1 Real sector savings (RSS) has no significant effect on money supply (MS). Table 1 (a) shows that R= 0.734 that is 73% of the variation in MS as explained by RSS. Table 1(b) further reveals that the RSS has significant effect on MS ($\beta 07, t = 1.906, p<0.05$). Thus will reject the hypothesis one and concluded that RSS has significant effect on MS, a proxy for banking sector deepening.

Table 1(a): Regression model statistics for RSS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.734^a	.813	.757	8.52147	2.061

Table 1(b): Regression coefficient for RSS

Unstandardized Coefficients		Standardized Coefficients	T	Sig.
B	Std. Error	Beta		
.734	.912		1.816	.084
.382	.201	.419	1.906	.070
.865	.242	.695	.077	.000
.967	.238	.827	.407	.039

Hypothesis 2: Interest on loan paid by real sector (RIL) has no significant effect on money supply (MS)

Table 2 (a) shows that R= 0.922 that is 92% of the variation in MS as explained by RIL.

Table 2 (b) further reveals that the RIL has significant effect on MS ($\beta = .522, t = 2.911, p<0.05$). Thus will reject the hypothesis two and concluded that RIL has significant effect (MS) a proxy of banking sector deepening.

Table 2(a): Regression model statistics for RIL

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.922	.812	.757	7.52146	2.061

Source: SPSS V.21

Table 2(b): Regression coefficient for RIL

Unstandardized Coefficients		Standardized Coefficients	T	Sig.
B	Std. Error	Beta		
.744	.900		1.816	.088
.482	.301	.522	2.911	.072
.876	.244	.695	.078	.000
.627	.232	.827	.404	.039

Source: SPSS V.21

Hypothesis 3 Real sector transaction cost (RTC) has no significant effect on money supply (MS)

Table 3(a) shows that R= 0.954 that is 95% of the variation in MS as explained by RTC.

Table 3 (b) further reveals that the RTC has significant effect on MS ($\beta = .517, t = 2.100, p<0.05$). Thus will reject the hypothesis three and concluded that RTC has significant effect on MS a proxy of banking sector deepening

Table 3(a): Regression model statistics for RTC

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.954^a	.833	.767	7.62146	2.061

Table 3(b): Regression Coefficient for RTC

Unstandardized Coefficients		Standardized Coefficients	T	Sig.
B	Std. Error	Beta		
.834	.912		1.916	.087
.442	.201	.517	2.100	.071
.767	.242	.696	.073	.000
.904	.238	.727	.427	.000

Discussion of Findings

Research objective one and hypothesis one with regression result ($\beta = .507, t = 1.906, p<0.05$) revealed that real sector savings has significant effect on banking sector deepening. This results is consistent with the views Odediran and Udeaja (2010) [14]. They observed the causal link between financial sector development and real sector growth, and concluded that real sector savings is responsive to the choice of financial sector development index and the demand-following response tends to prevail in Kenya.

Research objective two and hypothesis two with regression result ($\beta = .522, t = 2.911, p<0.05$) revealed that real sector interest on loan has significant effect on banking sector deepening. This result is in line with the work of Oriavwote and Eshenake (2014) [18]. They observed that financial sector development has a remarkable improvement through the real sector, because of the statistical irrelevance of interest on credit to the real sector

Research objective three and hypothesis three with regression result ($\beta = .517, t = 2.100, p<0.05$) revealed that real sector transaction cost has significant effect on banking sector deepening. This result is in line with a study carried out by Gounder (2012) [10], who put forward that financial sector development have substantial link with the real sector through their transactions.

5. Conclusion and Recommendations

Based on the findings of this study, it pertinent to state here that real sector is a pivotal tool for banking sector deepening, hence the contribution of real sector on the growth and development of the banking sector cannot not exaggerated. The surest way for banking sector to strive is through the real sector financing, since they are the closet means of finance to the banking sector. Conclusively, the findings of the study equally reviews that the real sector savings, interest on loan and cost on transactions by the real sector affects the development of the banking sector.

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