Bank Consolidation and Economic Growth: The Nigeria Experience

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Abstract

Thestudy examines the effect of Bank consolidation on Economic growth in Nigeria using data from the Central Bank of Nigeria statistical bulletin from 1980-2018. The study adopted the Ordinary Least Square (OLS) method estimation technique to conduct quantitative analysis. The results of this study were analyzed using economic a priori criteria, statistical criteria and econometric criteria. Findings revealed that the positive and statistically significant relationship between interest rate and economic growth indicates that interest rate is a major factor that contributes to economic growth in Nigeria. The positive and statistically significant relationship between credit facility and economic growth indicates that credit facility is a major factor that influenced economic growth in Nigeria. The positive and statistically significant relationship between risk management and economic growth indicates that risk management is a major factor that influenced economic growth in Nigeria. The positive and statistically significant relationship between bank depositor's funds and economic growth indicates that bank depositor's funds are a major factor that influenced economic growth in Nigeria. The study recommends that there is a need for the banking industry to deregulate interest in Nigeria to stimulate domestic and foreign direct investment in the boast economy. The study also recommends that government should collaborate with the banking sector to create a stable macroeconomic environment and credit facilities for investors who want to expand their business to increase output and human capital development.

Keywords: Bank Consolidation, Economic Growth and Deregulation

Introduction

The banking sector is an essential component of the financial system that plays a pivotal role in National, Economic growth and development, particularly in developing countries with low levels of stock market development, Banks are, for instance, described as the engine of growth and development. Baking systems all over the world have developed gradually and naturally over the years. This development is motivated by the environmental challenges, occasioned by the globalization trend of the entire world. To be better positioned to deliver on its developmental function of enhancing economic growth, advocates of bank capital like Cannan E. (1921) argue that banks should be adequately capitalized to be able to absorb shocks and ensure the stability of the financial system. In Nigeria for instance, bank capital has been a major component of banking reforms since 1952. Okafor (2011) posits that episodes of bank capitalization in Nigeria aimed at achieving an adequate capital base to drive credit as well as provide adequate cover to bank credits. Soludo (2004) explains that the 2004/2005 upward review of bank capital from two billion naira (N25) to twenty-five billion naira (25bn) was aimed at developing a diversified, strong and reliable banking sector capable of playing active development roles in the local economy and of being a competent and competitive player in the African region in order and global financial system.

Compliance with new capital requirements often leads to capital restructuring. According to Pandy (2005), capital restructuring refers to changes in ownership structure, business mix, asset mix and other allowances aimed at achieving enhanced stakeholder value. After the 2004/2005 recapitalization exercise, 25 banks emerged from the 89 that existed before the exercise following a series of mergers and acquisitions in the sector. The exercise led to "forced marriages" in the banking system as banks that could not on their own meet up with the new capital requirements either merged or out-rightly were acquired by bigger banks. Fourteen banks which were unable to meet up with the recapitalization deadline and could not attract willing "suitors" has their operating licenses withdrawn. According to the concentration theory of business, the 25 bigger, stronger and more diversified banks that emerged from the consolidation exercise were expected to record efficiency gains leading to enhanced operational performance. Following the success of the consideration programme, bank deposits and credits grew four-fold from 2004 to 2009 and banking assets grew at an average of 76 per cent. The huge increases in capital and asset base of the consolidated banks as well as their liquidity levels, however, failed to guarantee some measure of stability in the sector as some major players in the sector came under severe liquidity and capital adequacy threats within three years of recapitalization.

Literature Review

The Evolution and Development of Banking in Nigeria

The banking industry in Nigeria started during the colonial era with the establishment of colonial banks with the primary aim of meeting the commercial needs of the colonial government. The banking system in Nigeria is regulated through the central bank of Nigeria (CBN). This Apex bank started operation on July 1, 1959. In 1892, African Banking Corporation (ABC) was established in Nigeria. It was established solely, for traders in Lagos against the management of the bank, on the grounds of divided interests and unfair competition. The bank was later acquired by Elder Depster Lines and Company in December 1982, then its operations were eventually folded and sidelined. In 1894, the Bank of British West African (BBWA) (now First Bank) replaced the former.Commenting on the performance of the banks, Ndiomu (1993) observed thus"the ABC experienced some difficulties and eventually decided to transfer interest to Dempster and company in 1893, this led to the formation of a new bank known as the BBWA.'The BBWA operated as a commercial bank, central bank, and mint, until 1912 when the West African Currency Board was established to print currencies in West Africa. in 1925, the Anglo-Egyptian bank and national bank of South Africa gave birth to Barclays Bank in Nigeria. In 1948, the United Bank for Africa was formed. Thereafter, nine other foreign banks were established, with no Nigerian interest.

Out of frustration arising from how indigenous businessmen were being treated by the big foreign banks, they started thinking of establishing their banks. Thus, the first domestic bank in Nigeria was established in 1929 and called industrial and commercial banks. The bank was liquidated in 1930 and was replaced by a mercantile bank in 1931. The African Continental Bank was created in 1949 as the only sustainable indigenous bank after the liquidation of the industrial and commercial bank. The year 1947, shows the emergence of an agriculture bank called the Nigerian Formers and Commercials Bank.However, a figure as high as 185 banks were quoted from government records and were confirmed by the financial secretary as the number registered as banking companies between 1947 and 1952, though most of those companies were merely registered without commencing operation. According to Olabisi (1981):

> The period was characterized by the initial implanting of bank sends to correct the unorganized and multi-unit monetary system and cut-throat competition between foreign banks and indigenous banks. Also, to curtail the uncontrolled establishment of banking institutions, especially the indigenous ones.He went

> further to say that … indigenous bank failures were a result of their inability to raise the minimum amount of capital required of them, and partly due to mismanagement of available capital and resources.

The first banking legislation was enacted in 1952. The 1952 ordinance restricted the establishment of banks and banking institutions to companies holding valid licenses. Following the implementation of the economic structural adjustment programme (SAP) in 1986, the financial system became gradually deregulated in 1987.It was observed that "excessive regulation tended to create more problem than it should, in an environment beset with a lot of indiscipline, considerable resource was wasted in trying to enforce such regulations." Entry into the banking sector was liberalized again such that by 1990, a total of over 250 banks were recorded, including commercial, merchant, community, mortgage and specialized/development banks. In 2010, the C.B.N permitted banking license holders to operate in other non-core banking services either directly or indirectly through designated subsidiaries.

Banking Sector Crisis in Nigeria

A bank that is illiquid or insolvent, or both, is distressed and therefore is in crisis. A banking crisis can occur in a bank, a country, a region, or on a global scale. There are various degrees of banking crisis ranging from mild to severe crisis, depending on if the bank is Illiquid but solvent, liquid but insolvent, or illiquid and insolvent. The banking crisis is said to be severe when a bank shows most or all of the following conditions:

i. Gross under-capitalization concerning the level and character of business

ii. A high level of non-performing loans

iii. Illiquidity as reflected in the bank's inability to meet customer's cash withdrawals and a persistent overdrawn position with the CBN

iv. Low earnings resulted in huge operational losses, and Weak management as reflected in poor asset quality, insider abuse, inadequate internal control, fraud (including unethical and unprofessional conduct), squabbles, and a high staff turnover etc (Ajie Ezi and Einabare 2006).

According to Reinlart (1999), the banking crisis is marked by one of two events.

i. Bank runs, culminating in the closure, merger, or acquisition by the public sector or one or more financial institutions or

ii. The closure, merger, acquisition or large-scale government assistance of an important financial institution or group of institutions.

The CBN and NDIC (2002) have adopted the CAMEL parameters that crisis would be said to have occurred in Nigeria where at least two of the following situations are present:

i. The banks that are critically distressed control 20% of the total assets in the industry

ii. 15% or more of total deposits are threatened

iii. 35% of the banking system's total loans are not performing.

Indeed, the Nigerian baking sector has over the last two decades been afflicted by non-performing credits and gross inside abuses and fraud (Ajie and Ezi 2000).

The Effect of the Banking Sector Crisis on the Nigerian Economy

A bank failure is a much more serious issue than failure in any other institution because of the financial intermediation role of the bank. Consequently, bank failure is always of great concern to depositors, the regulatory authorities and the government. Bank distress leads to a loss of confidence which could jeopardize the intermediating role of banks. The consequential dearth of invertible funds could truncate economic growth and development. Some of the negative effects of the banking crisis on the economy include the following:

Erosion of Public Confidence: Banking is built on trust and confidence. The loss of public confidence would threaten the survival of other healthy banks as the systemic risk is triggered, particularly in the absence of a deposit insurance scheme or other forms of safety net. There would be a massive profit shift to safer assets such as foreign currencies, government securities and non-monetary assets. Capital flight would flourish as well. Already, the banking culture in Nigeria is poor and would be exacerbated by bank distress. According to Ajie et al (2006), Bank distress would also jeopardize the earnings of banks due to low patronage.

Economic effects: In a period of banking crisis, the payment systems would be perilous and at great risk as the link between the real sector and the financial sector including international settlement would be greatly impaired, as banks are the major means of implementing monetary policy in an economy. This would hamper economic development in the long run.A serious economic effect is that failed banks would be incapacitated from extending new credit, if credit is extended at all, it is likely to be short-term and mainly to finance commence and purchase foreign exchange. The productive sector (agriculture and manufacturing) would be crowded out from the credit market, yet the productive sector must be galvanized for macroeconomic stability to materialize. Again, the failure of a large bank or many banks at the same time can lead to a sudden contraction of the money supply. This would have very serious adverse implications for macroeconomic stability as economists whether monetary or fiscal agree that the level of money supply has a positive correlation with the volume of activities in any economy.

Banking Sector Reforms in Nigeria

In Nigeria, the banking industry has been afflicted with crises since its inception. In recognition of these problems, authorities have embarked on several reform programmes to revitalize the banking industry. The First Phase of Reform Policies (1952-1985). The first attempt to regulate the business of banking was through the enactment of the banking ordinance in 1952. Further efforts to strengthen the regulatory framework of the banking industry led to the enactment of the following banking legislation

i. The central bank of Nigeria Act of 1958.
ii. The banking act of 1969.

The enactment of the CBN led to the formulation of some reform measures focused on direct monetary control which dominated the banking industry from 1952 to 1985. Some of these reform measures were.

i. The restriction of the private sector from joining the banking industry.
ii. The interest rate controls.
iii. Selective credit guidelines, the ceiling on credit expansion and the use of reserve requirements.
iv. Other direct monetary control instruments.

The Second Phase of Reform Policies (1986-2003). This period was characterized by a total economic shift from direct economic management to indirect economic management through the adoption of the structural adjustment Programme (SAP). The main focus of the reform measure was on two perspectives.

i. Introduction of new acts and amendment of existing acts, The Central Bank of NigeriaAct 1991, which amended and replaced the of 1958 and was further reviewed in 1998 and 1999.
ii. Banks and Financial Institution Act of 1999 which also amended and replaced the banking act of 1969, was also reviewed in 1998 and 1999 (Amended no 24 and 25).

The newly established act of the time was the Nigeria deposit insurance corporation (NDIC) in 1991.

The second stage of the reforms includes monetary policy, interest rate administration and foreign exchange management, financial market liberalization and institution building in the financial sector. From the main objectives of the reforms, the following were the focus.

i. Removal of non-price rationing of credit to reduce misdirected and increased competition.

ii. Adoption of direct monetary management in place of the imposition of credit ceiling on individual banks.
iii. Strengthening the money and capital market through policy changes and the distress resolution measure.
iv. Improving the linkages between formal and informal financial sectors

The Recent Reform Policies (2004-Date) is the era of bank consolidation and recapitalization. These two are the most important of the 13-point reform agenda of CBN governor, Professor Charles Soludo on July 6, 2004. Consolidation is an instrument used to enhance capitalization. Therefore, the bank recapitalization process pursued by the CBN as part of the reform programme is based on the consolidation of banks in Nigeria to increase their capital base. In all, the goal is to strengthen the intermediation role of banks and ensure that they can perform their developmental role of enhancing economic growth.

Empirical literature

Most studies on bank's efficiency (Altunbas, Gardiner, Molyneux and Moore,2001; Berger, 1995; Humphrey,19997; Berger and Master, 1997, BOS and Schmiedel, 2007, Goddard, Molyneux, and Wilson, 2001; Maudos, pastor, Fercz, and Quesada, 2002, Schare, Wayenvoart, and O'Brien, 2004, Williams, Pegpoch and Barros, 2009) focus on the US and Europe and neglect banks in emerging countries such as Nigeria. Multi-country analysis usually considers factors such as legal tradition, accounting conventions, regulatory structures, property rights, culture and religion as possible explanations for cross-border variations in financial development and economic growth (Beck and Levine,2004). Studies at the country level usually focus on market dynamics as determinants of efficiency (Bikker and Leaf 2002), or provisions for loan losses which can exert a negative impact on the levelof economic activity (Cavallo and Majnoni, 2002). Other factors such as market structure and bank-specific variables have been proposed in the structure-conduct-performance paradigm, and have been used to test the role of ownership and governance in explaining bank performance (Bikker and Leaf 2002). In general, the extensive empirical evidence does not provide conclusive proof that bank performance is explained by either concentrated market structures and collusive price-setting behaviour or superior management and production techniques, bank performance levels are found to vary widely across banks and banking sectors (Schure et al 2004)

Another strand of the literature analyses the impact of consolidation on economic growth.The evidence on the effects of consolidation also seems to vary by country. This is because each country has its market characteristics and regulations (Vandervennet, 2002). In general, no strong evidence of the benefit of consolidation is found in the US. While in Europe the conclusions seem to be mixed (Carbo and Humphrey, 2004; Diaz, Garcia and Sanfilippo, 2004). For Asian countries such as Japan, the conclusions are also mixed and vary with the period analyzed (Drake and Hall, 2003). However, some indigenous researchers have worked on related topics. Bakare (2011) examined the growth implications of bank capitalization in Nigeria using regression analysis and sample test technique for the difference between the two means. The regression estimates show that recapitalization has a significant effect on economic growth. Sani (2004) examined the impact of capitalization reforms on commercial bank's performance in Nigeria and finds a significant positive effect of bank recapitalization on the performance of commercial banks. A similar study by Onaolapo (2008) shows that recapitalization has a significant positive impact on the financial health of banks. Studies by Kishnan and Opiela (2000), Ephraim et al. (2003) and Garba (2004) show that recapitalization promotes economic growth through enhanced loading to the real sector. Okpala (2013) finds that recapitalization significantly impacts the capacity of the banking sector to support real sector activities. Donwa and Odia (2011) analyzed the effect of bank consolidation on the development of the Nigerian Capital market based on chi-square and ANOVA techniques. The study shows that bank consolidation raised public awareness of the operations of the capital market. The study also shows a significant positive impact of bank consolidation on market capitalization and all share indexes.

Theoretical Framework

Innovations Diffusion Theory

This theory was first developed and popularized by Rogers in 1962 in his book entitled 'Diffusion of Innovation' published in 1962. This theory is an attempt to explain how, why and the rate at which new ideas and technology spread across cultures. According to the theory, diffusion is the process through which an innovation is communicated through certain channels over time among the participants in a social system. The theory identified four main elements influencing the spread of a new idea including the innovation itself, communication channels, time, and a social system. This process according to the theory depends heavily on the level of human capital development. In line with the human capital theory, the higher the level of human capital, the faster the process of innovation transfer and adoption. According to the diffusion of innovation theory, the process of adopting a new idea, product, behaviour or technology (that is, innovation) does not necessarily occur simultaneously in a social system but it is a process whereby some people are more readily disposed to adopting the innovation than others. It has been found by many researchers that people who adopt an innovation early have different characteristics than people who adopt it later time.

The diffusion of innovation theory has also been applied to explain the adoption of technology from the innovation point of view. By focusing his periscope on the attributes of technology, Rogers (1995) argued that the technology diffusion process comprises four aspects, namely an innovation or new technology itself, the social system, the communication channels of the social system, and the time horizon. o properly explains the observed adoption behaviour, Rogers focused attention on the first three aspects. Specifically, Rogers (1995) identified and explained the adoption behaviour of technology users by the following five characteristics.

i. Relative Advantage: This is the extent to which an innovation is regarded as being better than the idea, program, or product it seeks to replace.
ii. Compatibility: This explains how innovation is consistent with the established values, experiences, and needs of the potential adopters.
iii. Complexity - How difficult the innovation is to understand and/or use.
iv. Triability: This is the degree to which the innovation can be tested or experimented with before a commitment to adopt is made.
v. Observability: This refers to the extent to which the innovation provides significant results. Thus, the innovation that is relatively less observable diffuses more slowly than the e.

However, since its formulation, the diffusion of innovation theory has been applied in so many areas, including the financial system. For instance, the revolution in information and communication technology has resulted in financial innovation which led to the proliferation of new financial instruments, products and services, and new forms of organisational structure in the financial system.

Financial innovation by way of new financial instruments such as Automated Teller Machines (ATMs), internet banking, mobile banking, and Point of Sales (POS) evolved as a result of diffusion of innovation in the form of information and communication technology (ICT) into the financial system. Several criticisms have been levelled against the diffusion of innovation theory. though this theory has been applied in so many varied forms, it has been found that it lacks cohesion and becomes stagnant and becomes very difficult to apply with consistency to new problems (Damanpour, 1996). Second, it is also argued that diffusion is difficult to measure quantitatively because human beings and human networks are complex and as such what causes innovation of adoption is difficult to measure (Damanpour, 1996).

Thirdly, it is further argued that diffusion of innovation theory can never account for all variables, and therefore might miss critical predictors of adoption. This variety of variables has also led to inconsistent results in research, reducing heuristic value (Plsek & Greenhalgh, 2001).

Theory of Constraint

Although the theory of constraints was postulated in an attempt to explain manufacturing it has now been used in the services sector to engender quality service delivery. The theory of constraint is one of the most widely recognized methods of continuous improvement and optimization within the service industry (Siha, 2009). The theory has been adopted by organizations such as GM Motors, Ford Corporation (Motorola, and Unilever who have adopted the theory in increasingthe flow of production, inventory reduction, quality defects reduction, cycle time and lead time. The theory of constraint (TOC) is traceable to the work of Goldratt (1984) based on an optimized production schedule'' which hypotheses that constraint in any system would distort the maximum performance of the system concerning its objectives. Specifically, constraints establish the limits of performance for any system (Institute of Management Accounting 2010). For the service and manufacturing sector, the goal is usually 'Profit maximization' both presently and in the future and constraints will prevent the service or manufacturing industry from achieving this goal. Thus, management of firms and organizations are advised to aggressively manage and follow the trend of these constraints if their goal (profit) would be realized (CastanoI, Moreira, Sousa and Meneses, 2010).

The concept of TOC rests on the assumption that firms face challenges that limit the achievement of maximum performance. The TOC thus enable a firm to locate the weakest element of processes that happen with the internal and external structure of the firm as constraints. Goldratt (1990) thus suggest a five-step process for defining and documenting the organizational processes.

The system's constraints as identified include:

a. Decide how to exploit the system's constraints
b. Subordinate everything else to this decision
c. Elevate the system's constraint
d. If any of the system's constraint has been violated, go back to Step 1

Goldratt (1990) identified several measurements that would enable a firm to determine the impact of day-to-day actions on its goals which include throughput, inventory and operating expenses. Throughput as the word implies relates to howa system generates revenue through sales of its products or services, inventory relates to expenditures on assets and capital items needed to run the business effectively while operating expenses are all the money spent in a bid to acquire throughput. Thus, to increase returns on investment a firm can represent it as follow:

ROI = (T-OE) (1)

Where:

T = Throughput
OE = Operating Expenses
I = Inventory

According to Goldratt, the primary objective of every organization is to make a profit. The goal can be achieved by increasing ROI, which can be accomplished by increasing T and decreasing OE. Considering the philosophy of the study, profit then or maximum ROI can only be attained by focusing on system constraints. This focus is realized through five steps suggested by Goldratt and Cox (1992):

Identification of the constraints specific to the system.

i. The exploitation of these identified constraints
ii. Prioritize challenges with constraints coming on top before non-constraints

iii. Elevate the constraint(s) and finally (5) begin the process as a cycle by returning to step 1 (Sullivan, Reid, and Cartier,2007)

Concerning banking, it could be stated that ‘’the theory of constraints can be used to identify candidate processes for incremental as well as radical transformations’’. The concepts outlined by the TOC can be used effectively to identify the organizational goal, locate the constraints to achieving maximum performance and develop practical measures to facilitate process improvement. Constraints in banks are frequently found to be policies and procedures rather than capacity or equipment. Finally, measures of throughput, operating expenses and inventory are important for the application of TOC which have been identified for banks (Branorski, Madan & Motwani, 1997).The banking industry in Nigeria evaluated its options and discovered that only 10 percent of its client base accounted for 90 percent of its expenses. The focus thus became how to eliminate costs by attending to those 10 percent. Competitiveness, high growth levels and increased sophistication in world systems and sub-systems thus forced the banking sector to re-evaluate techniques and innovations to improve its efficiency, profitability and overall performance. In recent years, advances in banking-related technology have reduced the need for physical location and banking transactions are now being conducted from remote locations using personal computers and ATMs.

Methodology

This study adopts the ex post facto research design. The decision was premised on the efficiency with which the Ex-post Facto research procedure utilizes theoretical and empirical theses simultaneously to estimate the impact of bank consolidation on economic growth in Nigeria using time series data from 1980-2017.

The Model Specification

The theoretical foundation of this model is the theory of constraint. This implies that the theory liesin the major functions of the banking system in an economy. This model is specified to examine the relationship between bank consolidation and economic growth in Nigeria overtime as extensively discussed in the theoretical framework. Therefore, based on the th**eory of constraint**, the empirical model for this study is specified functionally as follows.

RGDP = f (RSKMGT, INTR, CREFAC, DEPFUNDS) --------------------------3.1

Where:

RGDP = Real Gross Domestic Product

RSKMGT = Risk management (Proxied by total assets of commercial banks)

INTR = Interest rate

CRFAC = Credit facilities

DEP. FUNDS = Depositors funds

The models in equation 3.1 can be written in a linear form as follow.

RGDP = α_0+ α_1RSKMGT + α_2INTR + α_3CRFAC+ α_4DEPFUNDS+ $U_{1------}$3.2

Where: α_0 to α_4 and β_0 to β4 are the parameters to be estimated

U_1 is stochastic error terms.

The a priori expectations about the signs of the coefficients of the parameters are as follows: $\alpha_{1,}$ β_1< 0 and $\alpha_{2,}$ $\beta_{2,}$ $\alpha_{3,}$ β_3> $\alpha_{4,}$ β_4 > 0

The Findings and Analysis of Results

Regression analysis

The Ordinary Least Square (OLS) method was used to estimate the specified model with the aid of Eview-9 for analysis. The model consists of one dependent variable, (Real gross domestic product) and four independent variables (Risk management, interest rate, and Credit facilities and depositors fund).The estimated regression result revealed that all the variables have a positive relationship with economic growth proxy by real gross domestic product which is consistent with the a priori expectation that these variables contribute to economic growth in Nigeria.The estimated result shows that a unit increase in interest rate will increase economic growth in Nigeria by 22.79 units.Moreover, the estimated result also indicates that a unit increase in credit facilities will bring about a corresponding increase in economic growth in Nigeria by 9.73 units. Furthermore, the estimated result revealed that a unit increase in risk management proxied by the total assets of commercial banks will increase economic growth in Nigeria by 0.08 units. Finally, the estimated result revealed that a unit increase in bank depositors' funds will increase economic growth in Nigeria by 8.9 units.

Table 4.1 The Estimated Regression Result for the specified model.

Dependent Variable: RGDP				
Method: Least Squares				
Date: 03/09/19 Time: 15:12				
Sample: 1980 2017				
Included observations: 38				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INTR	22.79125	5.388330	4.229743	0.0002
CREFAC_	9.76E-05	8.86E-06	11.01819	0.0000
RSKMGT	0.080152	0.014448	5.547533	0.0000
DEP__FUNDS	8.90E-05	5.46E-05	2.631817	0.0022
C	466.6029	99.68149	4.680938	0.0000
R-squared	0.968098	Mean dependent var		1356.568
Adjusted R-squared	0.964231	S.D. dependent var		854.9908
S.E. of regression	161.7014	Akaike info criterion		13.13146
Sum squared resid	862862.3	Schwarz criterion		13.34693
Log-likelihood	-244.4977	Hannan-Quinn criterion.		13.20812
F-statistic	250.3551	Durbin-Watson stat		1.564587
Prob(F-statistic)	0.000000			

Statistical Criteria

Thisdeals with the test of significance of the estimated parameters, therefore in testing for statistical significance of the parameter estimates of the model, we employed a t-statistic test to test for the statistical significance of estimates. And by using t-statistics, the following decision rules were formulated.

Decision Rule:

If the t-value calculated is greater than the t-value tabulated, reject (H0) null hypothesis but if otherwise do not reject the null hypothesis and conclude that the parameter estimate is statistically or not statistically significant at a certain level of significance.

The t-tabulated at a 5% level of significance

Thus, t = α/2 (n-1)

t =0.005/2 (38-1)

t= 0.025(37)

t= 2.045.

At the 5% level, the statistical test conducted on Interest rate shows that the parameters estimate is statistically significant since its t-value calculated (4.229743) is greater than the t-value tabulated (2.045).This implies that the Interest rate is a major factor that influenced economic growth in Nigeria. At the 5% level, the statistical test conducted on the credit facility shows that the parameters estimate is statistically significant since its t-value calculated(11.01819) is greater than the t-value tabulated (2.045).This implies that credit facility is a major factor that influenced economic growth in Nigeria. At the 5% level, the statistical test conducted on risk management proxied by total assets of banks shows that the parameters estimate is statistically significant since its t-value calculated (5.547533) is greater than the t-value tabulated (2.045).This implies that risk management is a major factor that influenced economic growth in Nigeria.Furthermore, at the 5% level, the statistical test conducted on bank depositors' funds shows that the parameters estimate is statistically significant since its t-value calculated (2.631817) is greater than the t-value tabulated (2.045).This implies that bank depositors' funds are a major factor that influenced economic growth in Nigeria.The R-squared of 0.96 showed that the estimated model has a very good fit for the data. The R-Squared of 0.96 showed that about 96 percent of the total variations in the dependent variable have been explained by variations in the independent variables. This showed that the model has a good fit for the data and good explanatory power.Similarly, the F-statistics value of 250.3551 showed that the overall model is statistically significant at the conventional 5 per cent level of significance i.e ($F^{*0.005}$ Cal (250.3551) > $F^{0.005}$ tab (3.39444) This means that the independent variables affect the dependent variable, as such there exists a very high degree of a linear relationship between the dependent variable and independent variables in the model.

Economic Criteria (Second-order test)

The Watson statistic is used to test for autocorrelation among variables in the model. The Durbin-Watson (DW) statistic of 1.56 shows that there is a presence of serial positive autocorrelation in the model, which implies that the model can be used for policy formulation and forecasting over time.

Discussion of findings

The positive and statistically significant relationship between interest rate and economic growth indicates that interest rate is a major factor that contributes to economic growth in Nigeria, also the positive and statistically significant relationship between a credit facility and economic growth indicates that credit facility is a major factor that influenced economic growth in Nigeria.Secondly, the positive and statistically significant relationship between risk management and economic growth indicates that risk management is a major factor that influenced economic growth in Nigeria.Furthermore, the positive and statistically significant relationship between bank depositor's funds and economic growth indicates that bank depositor's funds are a major factor that influenced economic growth in Nigeria.

Conclusion

This study examined the impact of Bank consolidation on Economic growth in Nigeria using time series data from 1980-2017. Findings revealed that the positive and statistically significant relationship between interest rate and economic growth indicates that interest rate is a major factor that contributes to economic growth in Nigeria. The positive and statistically significant relationship between credit facility and economic growth indicates that credit facility is a major factor that influenced economic growth in Nigeria. The positive and statistically significant relationship between risk management and economic growth indicates that risk management is a major factor that influenced economic growth in Nigeria. The positive and statistically significant relationship between bank depositor's funds and economic growth indicates that bank depositor's funds are a major factor that influenced economic growth in Nigeria.

Findings from the study revealed that banking consolidation causes economic growth through interest rates, credit facilities, risk management and bank depositor's funds. The policy implication of this study is that, though consolidation direct or indirectly leads to growth, banking reform must not be restricted to only consolidation but complete deregulation of interest rates and not systematically regulated as obtainable in Nigeria.

Based on the findings, the following policy recommendations were made:

i. The banking sector should collaborate with the government to create a stable macroeconomic environment that will encourage investment to boast domestic productivity in Nigeria.
ii. Government should encourage the banking sector to make credit facilities available to investors who want to expand their business to increase output and human capital development.

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