

Effect of Deposit Money Bank Failure on Economic Development of Nigeria, 2009-2019

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ABSTRACT

Deposit money banks plays a vital role in the in economy which involves providing capital for investment thereby improving the well being of the country as such collapse of any bank can affect the economic development of the country. Therefore the study investigated the effect of bank failure on economic development of Nigeria (2009-2019) using secondary data from Nigeria Deposit Insurance Corporation and Statistical bulletin of Central Bank of Nigeria. The research work used the Granger Causality techniques to test the effect between the independent variables (Nonperforming loans, Capital Adequacy Ratio and Liquidity Ratio) on the dependent variable (Unemployment Rate) while VAR was used to test the short run relationship. The study found that bank failure granger causes unemployment in Nigeria within the period of the study. The study therefore advocates that banks must ensure they maintain reasonable and acceptable shareholders fund unimpaired by losses at all times and avoid capital erosion. Every loan granted by each of the banks has to be adequately collateralized and the incidence of insider related credits must be deemphasized to avoid loan losses or huge non-performing loans. The regulatory authorities on the other hand should engage themselves in capacity building to enable them perform their supervisory and regulatory functions as effectively as possible. The CBN must continue to emphasize and enforce the prudential regulation.

KEYWORDS: *Bank failure*

1. INTRODUCTION

Banking system has been referred to as the life blood of every economy, as every economic activities need finance, which is the article of trade of the banks. Being that bank failure engenders fear in the mindset of depositors and without deposits, it will be difficult for banks to effectively play their intermediary role of moving idle cash from the surplus unit to deficit unit for productive purpose.

Bank failure remains a major threat to consistent economic growth that leads to under-development but to what extent does it affect economic activities? The Great Depression provided researchers the basis in establishing empirical characterization that occurs during business cycle. The impact caused by economic contraction prevalent during this phase originated due to several shocks resulting in liquidity

preference increase among depositors who preferred holding more currency than demand deposits and other liabilities. To this end, capital squeeze created reduction in money supply that affected entrepreneurial financing leading to slowdown in economic activity (Friedman and Schwartz, 2017). But the degree of bank failure impact determines its classification as systemic and non-systemic.

Financial sector distress has been described as a situation in which a sizeable proportion of financial institutions have liabilities exceeding the market value of their assets which may lead to runs and other portfolio shifts and eventual collapse of the financial system (Anyanwu, 2014). Put differently, distress in the financial system occurs when a fairly reasonable proportion of financial institutions in the system are

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unable to meet their obligations to their customers, their owners and the economy as a result of weaknesses in their financial, operational and managerial capabilities which render them either illiquid and or insolvent (CBN, 2017).

In recent years the volume and frequency of crisis in the Nigerian banking industry has been on the increase. Despite the various frameworks being put in place by the regulatory authorities to ensure that bank failure is curtailed in Nigeria, it is still surprising how bank failure has remained a critical issue for a developing economy like Nigeria. In recent times, 439 banks have failed in the U.S from 2008 till date (FDIC, 2012) likewise in Nigeria since the establishment of banking in 1892 through to the present period, a significant number of banks had failed. This sector was initially dominated by foreign banks such as the Bank for British West Africa now First Bank of Nigeria, Barclay Bank now Union Bank of Nigeria until indigenous banks were licensed between 1920 through to 1930s. The rapid rate of bank failure that followed this period resulted in 21 from the 25 established indigenous banks failing leaving only 4 (Uzoaga, 2013). The main purpose of establishing indigenous bank was to make loans accessible to SMEs but this was undermined by continuous financial distress which led to their failure (Brownbridge, 2015). The initial bank failures were attributed to lack of regulation and control, thus the establishment of the Central Bank of Nigeria in 1958.

However, the institutional framework could not prevent the failing of banks. Financial distress continued to cause the liquidation of banks; 5 banks were closed in 1994, 17 distressed banks were taken over by CBN in 1995 and 1 in 1996 (CBN Report, 2009). The amendment of Bank and Other Financial Institutions Act (BOFIA) in 1991 saw the revocation of licenses of 27 banks with effect from January 16, 1998 and 3 banks closed in 2000. The 2005 banking sector reform swept away 13 additional banks and banks were reduced from 89 to 25 as at 2006. In 2009, 8 out of the 24 banks were declared insolvent due to huge non-performing loans, totaling in excess of N2.2 trillion (\$14.67 billion) which is equivalent to 5.2% of GDP likewise crashing the stock market capitalization by 70% from N10.3 trillion in 2007 to N5.3 trillion in 2009 (Sanusi, 2011). The critical question is 'Has bank failure played a pivotal role in under-developing the Nigeria economy over the years'? It is therefore imperative to examine how Nigerian economy has performed, in the face of recurring bank failures.

Various research work of Adeyefa et al. (2015), Uzokwe and Ohaeri (2012), Elegbe (2013), Okezie

(2011), shows that bank failures has significant effect on economic activities while the studies of Udegbanan (1999), Natacha (2014), Adeyanju (2014) shows that bank failures has insignificant effect on economic activities This shows that there are contradictory result on the effect of bank failures on economic activities in Nigeria as such the relationship between the two variables is far from being empirically settled Thus, studies in these areas appear inconclusive. The different results obtained by the empirical studies do not permit the researchers to draw an unequivocal conclusion on the subject matter thus the need to re-examine the effect of bank failures on economic activities in Nigeria from 2005 to 2019. The paper is arranged as follows. Section two focuses on literature review, section three focuses on methodology and section four on conclusion and policy implication.

2. LITERATURE REVIEW

The general conception of failure means unsuccessful. Unsuccessful in the sense that set goals are not attained as result of the presence of failure in the abilities of the individual or persons inn carrying out a particular assignment, which portrays weakness in such abilities. The Oxford Advance Learner's Dictionary of current English, by A. S. Hornby in his third edition of 1974, defines Bank Failure in Nigeria as "a state of being insolvent". He went further to say that "it could be as a result of neglect or omission. Okafor (2010) defines Bank Failure in Nigeria "as a situation when a bank is closed temporality or permanently or account of financial difficulties and including banks whose deposit liabilities were assumed by other banks at the time of closing, with the aid of loans or purchases of assets by Federal Deposit Insurance Company (thus in effect constituting "hidden failure"). He finally summarized Bank Failure in Nigeria or insolvency as "the inability to pay deposit liabilities.

Anyanwokoro (2009) stated the following on how to know a failed bank. "when the portfolio a particular bank is carrying, is far out of proportion to its capital and deposit base. Mostly when the loan granted are of unsecured nature. He also said that "when the liquidity of a bank is very bank's total assets". Hassan (2017) still went further to say, "when a bank is repeatedly suspended from the clearing house it is a sign of ill – health, the bank is insolvency. Bank Failure in Nigeria according to Ezeuduju (2012) means different things to different people. To some people, a bank fails only when it ceases operation even if it has not been declared liquidated officially. A bank is said to have failed if it has not succeeded in achieving any of the objectives for which it was

established. Thus, a bank is considered a failure not only when it ceases operation but also when it cannot meet its obligations to its customers as well as to its shareholders and even the community where it is established. Failure to meet obligations could be serious, mild or negligible.

The last, but not the least definition that we shall look at is that of the failed banks and financial malpractice's in banks decree 1994, which says "that a failed bank is a bank or financial institution whose license has been revoked or which has been declared closed, placed under receivership or otherwise taken over by the Central Bank of Nigeria or Nigeria Deposit Insurance Corporation. This study will concentrate in various aspects of bank's obligations, which includes inability's to meet depositor's demand for withdrawals persistent losses and outright liquidation. These firms of serious Bank Failure in Nigeria become worry – some in Nigeria during the following periods 1930's to 1950's and since lots 1980's and even into the 90's and to present day.

Types of Bank Failure in Nigeria

From the various definitions given by different authorities, we can deduct the following types of Bank Failure in Nigeria by Anyanwaokoro (2009):

Temporary Bank Failure In Nigeria: This is a situation where the bank retreats for a while due to financial difficulties and tries to find avenues for correcting its financial stress through or from the Nigeria Deposit Insurance Corporation or from other sources, after which it will open its doors again for business. **Permanent Bank Failure In Nigeria**: This is when a bank as its license revoked and goes out of business for good. It is bought over by the Central Bank of Nigeria or the Nigeria Deposit Insurance Corporation. **Hidden Bank Failure in Nigeria**: The bank in this case is able to obtain loans or make other necessary arrangement to get the situation of financial difficulty under control without the public having knowledge of the problem that the bank is going through. The situation is not made glaring to the eyes of the public. **Open Bank Failure in Nigeria**: Under this situation, the bank can no longer hide its financial difficulties from the public. All corrective measures to hide the bank's ailment at this stage have proved abortive.

Causes of Bank Failure in Nigeria: Macro – Economic Instability This is the cause of the even changing policies of the government as it affects the entire economy of the nation. This is as a result of the constant and unplanned change in regimes of President and Heads of States .Each government that comes into power does not follow strictly to the policies already in existence before their regimes.

They embark on new plans or policies, which affects the entire economy and does not creates room for implication of some bank policies, which is expected to guide the bank for a period of time into the future. With these inconsistency the banks are left at the mercy of competent mangers with a stroke of good – luck, to see them through with adverse effect or individual banks. The fault was indiscipline which was encouraged by weak banking laws which failed to provide adequate penalty for operators' effective way of making banks and their customers, shareholders and regulators account for their role in providing, promoting and utilizing banking services.

Environmental Constraints: Since the mid – 1980's, the economy was beset with sluggish growth in output and rapidly rising inflation for most of the period, and fast depreciating exchange rate until 1995. Economic downturn deprived the banking sector of the vibrancy as economic activities, which were expected to stimulate banking sector, declined. High inflation ad depreciating exchange rate eroded the purchasing power of bank customers. This encouraged the withdrawal from banks in order to meet essential needs, thereby reducing deposit liabilities which constitute the main source of banks' loan able fund.

Fraudulent Activities By Directors And Staff: Ndiulo (2000) a senior finance correspondence attributed Bank Failure in Nigeria to fraudulent activities of directors of various banks. In a publication under money watch, titled, "why the banks went under" on page 23 and 24 of Guardian of August 18, 1999 says the "apart from the three that owned banks – corporative and commerce bank, pan African bank and mercantile bank which were thrown into immediate problems by government directives in 2009 requiring all government parastatals to transfer their accounts to the Central Bank of Nigeria (CBN), the problem of the remaining 28 liquidated banks were caused by fraudulent activities by directors while many more are linked to financial mismanagement. "For instance, the 2014 annual report of the Nigeria Deposit Insurance Corporation (NDIC) clearly showed how mindless borrowings from directors who had no intention to repay led to the liquidation of Alpha Merchant Bank and United Commercial Bank. In these banks a total sum of N2.43 billion was borrowed by directors and other top executives out of a debt stock of N2.74 billion. This follows that the loans borrowed by the bank chiefs represented 64.8% of the total loan portfolio of the banks. This point to the fact that the loans were not invested profit to the bank, but was utilized to the benefits of greedy directors. A financial expert

observed that some bankers are moved into committing fraud as a result of the way directors and top management official move funds or defrauded the bank. According to NDIC, frauds totaling of N1.37 billion was recorded in the banking industry in 2013. In 2014, the figure went on to N2.65 billion. **The Crippling Hold On The CBN's Autonomy:** The Abubakar's regime, which finally granted or returned the CBN's autonomy after ten (10) years under the presidency and min ministry of finance, will never be forgotten by the banking industry. The granting of this autonomy to the CBN is for the (CBN) to formulate and implement monetary, credit and other policies, which will help stabilize the banking industry as well as the entire Nigeria economy.

The former CBN governor, Mallam Sanusi said that "the CBN acknowledges its supervisory capacity as being less than optimal in the previous years but "blamed it on the non-traditional functions which the CBN was saddled with over the years by the government". The single act was responsible for the diversion of funds from the banking industry to other countries without the approval of the monetary authorities, which affected the entire industry because of the money squeeze. Emeka (2008) identified the Apex Bank inability to check the excess of banks, and to adequately monitor, identify and punish banks which do not comply with its various regulations and guidelines. All these, were as a result of the crippling hold on the CBN's autonomy and not the entire fault of the regulatory authorities. **Incompetent And Unqualified Staff:** Anyanwaokoro (2009) reveals that incompetent and unqualified staff is recruited for jobs in the banks for key offices. With such, management team, the bank will surely lack innovations and will not meet professional demands of the jobs, which results, to incompetence of Some banks that failed. The failed banks had unqualified staffs in other field not related to banking which made them loose a sense of direction since the few months training they received was not adequate for the competition in modern day banking which is quite dynamic and needs a qualified personnel in the field who still needs his wits about him to survive the competition. **Poor Portfolio Management:** It has been observed that performance of banks on aggregate, deteriorate over the years as shown below: i. Capital adequacy measured by the average ratio of classified assets to shareholders' fund, deteriorated over the years though marginal improvement become noticeable since 1995. There were sharp short falls in the required capital between 2012 and 2013 before some improvement since 2014 (Emefiele, 2015). ii. Asset quality, as reflected in the ratio of classified assets to total loans and advance

deteriorated progressively for many banks 2009 to 2014. iii. Liquidity of banks, measured by the liquidity ratio, which fluctuated around the policy minimum between 2006 and 2012 showed some improvement since 2013. Relying on the desirable level of loan/deposit ratio of about 70 percent many banks over lent their resources most of the time. iv. The earning indicators of the banks showed mixed and varying performance among the bank. v. Bank management, measured by their inability to check capital inadequacy, poor asset quality, poor earning capital and distress has been rated ineffective.

Effects of Bank Failure in Nigerian Economy

Loss of public confidence in the banking sector: The whole concept of a bank revolves on public confidence on the bank's ability and willingness to deliver on its obligation (Emekekwe, 2017). The above extract stress on the issue of public confidence as the very point of the existence of any bank. Once the public confidence on any bank is lacking that bank should be on the verge of either packing up it's – business or be ready to revitalize its activities in other to be in business. Emekekwe (2017) still went further to explain that it is as a result of this public confidence that the Nigeria Deposit Insurance Corporation (NDIC) was established. According to him, the issue at stake is not the prevention of Bank Failure in Nigeria per say, but rather the protection of depositors from the consequences of Bank Failure in Nigeria. He explained "we are not worried about the loss of deposit by members of the public". Anyawaokoro (2009) also stresses on the importance of public confidence in the banking sector since the "banking business thrives on public confidence. He said to win and retain public confidence, a bank must be able to convince the public of its stability and display its readiness to repay customers deposits and accommodate genuine credit needs of customers. Once the public withdraws the confidence as a result of Bank Failure in Nigeria, the resultant effect is diversion of deposit from the banking sector to areas where they may not be fully utilized for the overall benefit of the entire economy.

Capital flight: Bank Failure in Nigeria can result to capital flight from the Nigeria banking sector to financial institutions or centers abroad where they can yield higher profit than depositing with bank in Nigeria with vague future. According to Ude (2012) stated that citizens of one country can indulge in directs foreign investment or portfolio investment. Instead of big time depositor to deposit their idle cash with the bank in Nigeria, they would prefer to invest the funds abroad. These funds invested abroad goes to develop or improve the economy of the country

where it is invested while Nigeria suffers economic setbacks. **Unemployment:** For now, over sixteen billion naira investors' fund are trapped in the vaults of the failed banks out of which about five billion naira is insured with the NDIC. Not only will many depositor not get back their money, the league of the unemployed will swell as more thousand workers would be thrown into the labour market (Semiu, 2013). This number that would be thrown into the labour market will only go to increase the number of unemployed within the economy. Investors would not be willing to invest whole – heartedly in the banking sector. Which is supposed to acts as an intermediary for borrowers of fund for the establishment of industries, which will employ large portion of the populace, and thus, reduce the number of the unemployed. As a result of this unemployment, the social evil indulged in by the citizen will only be on the increase.

Foreign Investment would be Hindered: Foreign investors who had interest in investing in the country would shy away from such investment since it would only mean a loss of their hard earned money. The mineral resources will not be fully exploited for the general benefits of our economy. This then spells under -utilization of our natural resources, if when exported would not yield enough income. This could also lead to low income per capital for citizen within Nigeria since gross national product is very low compared to the size of the population but, where there is enthronement of foreign economic partners will boost our economy (Ajayi, 2009). **Additional Burden to Regulatory Authorities:** The growth in the number of institutions operating with the banking industry consequently led to increased competition. Likely to breed sharp practices by some bankers, this would increase the risk interest within the banking industry” (Ugwuanyi; 2017). The establishment of the Nigeria Deposit Insurance Corporation in 1988 as an independent and autonomous institution was to add weight to the existing supervisory and control capabilities of the central bank of Nigeria. Even with this establishment, the processes involved in the liquidation of banks takes too long due to some bureaucratic bottlenecks involved in the Bank liquidation, and this illustrates the fact that the process of liquidation is not an easy task for the regulatory authorities Nigeria.

The supervision of banks would reveal signals that predict bank distress or failure. Some researchers like Jimoh (2013) and Nyong (2014), Augusto (2014), have developed or tested model for providing early warning signals. The composite bank rating measures is preferred to individual rating measure because the

composite rating technique takes into account a wide range of factors in determining the health of banks.

Composite rating realize on the widely accepted.

CAMEL Characterization where:

C – Capital

A – Assets Quantity

M – Managerial Capabilities

E – Earning Capacity

L – Liquidity position

S – Sensitivity to the economic environment

The above listed is used to know the extent or probability of distress or failure.

Liquidity ratio – measures a company's ability to pay debt obligations and its margin of safety through the calculation of metrics including the current ratio, quick ratio and operating cash flow ratio. It also indicates that the company is in good financial health and is less likely to face financial hardships. The higher the liquidity ratio the higher is the safety margin that the business possesses to meet its current liabilities.

Capital Adequacy Ratio: is a measure of how much capital a bank has available, reported as a percentage of a bank's risk –weighted credit exposures. The purpose is to establish that banks have enough capital on reserve to handle a certain amount of losses, before being at risk for becoming insolvent. It is also known as capital to risk assets ratio, is the ratio of a bank's capital to its risk. It is used to ensure that banks can absorb a reasonable amount of loss and complies with statutory capital requirements .It is a measure of banks capital.

Nonperforming Loan: is a loan in which the borrower is default and hasn't made any scheduled payments of principal or interest for some time. In banking, commercial loans are considered non performing if the borrower is 90 days past due. The main causes of NPL are high-interest rate, low GDP, poor credit appraisal, inflation, unemployment and improper lending disbursement to agriculture sector.NPL have negative impact on the economy and financial institutions.

Economic development is the process of improving the quality of life of a nation, region or community. This typically involves objectives such as social well-being, economic growth and sustainability. It's a broad scope and focuses on innovation, skills and infrastructure as well as job creation. According to Onwumere and Ige (2010) economic development helps in reducing the incidences of poverty, income inequalities, unemployment and amelioration of the poor living conditions of the country.

3. Theoretical Framework

The study is hinged on the Keynesian economic theory. The Keynesian economic theory extensively explore saving and investment without seriously considering financial intermediation. However, Keynes explanation on moral hazard of lending remains a focal point in explaining economic contraction. According to Keynes, changes in lending rate and credit availability or surplus determines the level of credit contraction for the banking system. Moreover, the supply of credit in free competitive market depends on correlation of quantity and price. But in practice, the conditions of a free competitive market for bank-loans are imperfectly fulfilled due to credit rationing by banks to borrower, the amount lent depends on the security, interest rate offered, client-firm purposes and established banking relationship. Although a fringe of unsatisfied clients who are unable to facilitate credit but to whom the bank would be quite ready to lend if it were to find itself in a position to lend more. The existence of this unsatisfied fringe allows the banking system a means of influencing the rate of investment supplementary to the mere changes in the short-term rate of interest. Assuming recession or sequence of bank failures, securing short term loans depends on established relationship between investors and financial institutions which without hinders firms' investment.

Consequently, macroeconomic development pressurize banks in creating banking crises. Adverse macroeconomic shock threatens banks liquidity by exacerbating the inability of bank borrowers meeting debts repayment obligation. Sudden changes in aggregate spending or international capital flows may subvert the ability of domestic bank to continue facilitating lending obligations, thereby generating crisis. Furthermore, an unexpected upsurge in bank deposits demand and foreign capital create bank lending opportunities probably resulting in large doubtful loans and vulnerability to small shock (Gavin & Hausmann, 2006).

Chang & Velasco (2009) also argued that bank run could be triggered when the demand deposits and foreign short-term debt exceeds bank liquid assets value. They developed theoretical model of the financial sector illiquidity for an open economy which major on capital inflow and external debt financing. They concluded that the more insolvency the banking system undergo, the more the fragility it would experience from external shocks. Oviedo (2013) however based is argument on recessions, emphasizing that its impact is adequate to produce insolvency of the banking system. Bank dependent firm required loan in facilitating projects but the risk

associated with projects is not entirely diversifiable thus economic downturns tend to trigger a large ratio of poor project returns, depreciating the worth of banks' portfolio.

Nier & Zicchino (2015) also concur that losses suffered by banks during economic downturns are generated by provision made for loan-loss under prudential guidelines. They emphasized the inability of banks issuing new securities during recession are largely due to cost and uncertainty of viable return. They concluded that banks would rather cut lending than issuing new securities in order to retain its solvency.

3.1. Empirical Review

Elegbe (2013) examined the effect of bank failure on Nigeria economic development using the OLS method for regression models on a sample data ranging from 2001 to 2010, findings showed that a percentage increase in non-performing loans hampered GDP by 1.57% while increase in interest rate decline the economy by 8.48%. The Granger causality test revealed that the monetary policy stimulated bank failure and fiscal policy through government expenditure increase the rate of non-performing loans which reduced the aggregate economic activity. Finally, the industrial production shrinks by 0.15% due to 1% increase in non-performing loans and period of banking failure had contagious effect on industrial output reducing it by 0.29% invariably undermining consistent economic development.

Uzokwe and Ohaeri (2012) of distress in the Nigerian banking industry have been of huge concern to all stakeholders of the economy and the world business community at large. This paper focused on the causes, effects and strategies for solution. It sought to address the following questions: What is distress? What factors bring about distress? What should be done to solve the problem of distress? Data for the research was gathered through questionnaire administered to 106 respondents spread over 5 commercial banks in Imo State Nigeria. In our analysis, the result indicates that both political uncertainty and institutional factors constitute 64.6% of the factors that causes bank distress. This goes to suggest that distress in banking industry would not have occurred at the level it did but for these two factors. Aside fraud and embezzlement as noted in the research, the lingering effect of crisis associated with religion or tribal crisis has also affected Nigerian banks. Based on the findings recommendations were made.

Ubegbunan (1999) examined the causes of bank failure in Nigeria since the inception of the current financial deregulation and the implications of the

policy. The analysis, at the theoretical level, suggests that the root of the present financial instability and bank failure can be traced to structural changes in the economy, social and political upheaval, inconsistencies in regulatory and macroeconomic policies and bank internal problems. However, the empirical evidence seems to suggest that the primary causes of bank failure in Nigeria are banks' internal factors, especially liquidity, profitability and asset quality measured by the level of credit risk in a bank's portfolio. This is not surprising, given that the data used are essentially cross sectional and that the internal factors are to a large extent a reflection of external influences identified in the theoretical analysis. However, it is surprising that credit policy, management quality and capital adequacy are found to be less significant determinants of bank failure in Nigeria.

Adeyemi (2011) investigated Bank failure in Nigeria: a consequence of capital inadequacy, lack of transparency and non-performing loans? The aims of this study are to establish the main factors responsible for bank failure in Nigeria, to assess the extent to which these identified factors are accountable for this failure and to ascertain other factors that may be responsible for it. Consequently, this paper has identified capital inadequacy, lack of transparency and huge non-performing loans as major causes of bank failure in Nigeria. These factors were examined and the extent to which they have been accountable for bank failure in Nigeria were determined. Aside these factors, the author did not pay attention to other factors that may be responsible for bank failure which include ownership structure, weak/ineffective internal control system, poor management among others. Simple percentages were used to describe the data presented and the conclusion drawn was that these three factors have been the main reasons of the incessant bank failure.

Adeyefa et al (2015) examined the effects of bank distress on the Nigerian economy. The co integration and error correction mechanism were used to test the data which covers a period of thirty-one (31) years from 1982 to 2012. The research findings revealed that the ratio of non-performing loans to total loans, and total loans and advances have significant negative effect on economic growth with p-values of 0.0240 and 0.0445 respectively. Also, total bank deposit and cash reserve ratio have significant positive effect on economic growth with p-values of 0.0020 and 0.0374 respectively. The implication of this result is that the Nigerian economy is significantly affected by bank distress. The paper suggests that careful evaluation of loan proposals should always be carried out by banks

to determine the viability of the projects and the repayment of the principal sum and its interest ensured to prevent weak asset quality.

Ademola (2013) studied bank distress in Nigeria and the Nigeria Deposit Insurance Corporation Intervention. The objective of this project work is to see how the NDIC through its various activities have been able to restore confidence in the banking system. Secondary data were primarily used for this work because of the peculiar nature of the research work. Correlation coefficient and r-test were used to test the relationship between the variables. It was discovered that due to the increase in deposit guarantee, there is an increase in deposit mobilization. It was also discovered that the NDIC has transmitted from the flat rate premium assessment system to a differential premium assessment system. It is therefore recommended that from time to time, the deposit cover should be reviewed in conformity with the happenings in the economy.

Okezie (2011) investigated capital adequacy ratio as a predictor of bank failure in Nigeria. It employed time series data from 1991 to 2004 using Early Warning Systems (EWS) model. Auto regression and Granger Causality tests were employed to examine capital ratio as predictor of distress. The study revealed that capital adequacy ratio predicted bank distress significantly and the continued use of capital adequacy ratio in the prediction of bank distress was recommended by the study. The study also revealed that leverage capital ratio and the gross revenue capital ratio may be used to replace the risk weighted capital ratio since they are simpler and may not be influenced by the ever changing risk pattern of the banks.

Natacha (2014) in studying the likely causes of Chicago bank failure in the great depression using Vector Error Correction Model (VECM) showed that banks' long-term investments in illiquid assets (especially mortgages) severely weakened their position when they came to face large withdrawals on their deposits. Though restricted to Chicago, these results reassert the role that liquidity issues played in the Great Depression, both on the liability and the asset sides of the balance sheet. More specifically, they suggest that a solvent but ex ante less liquid bank is not necessarily healthy, and that liquidity risk management is just as important as credit risk management when the occurrence of bank runs cannot be completely excluded.

Raulin (2009) analyzed the theory of linkage between monetary policies and bank failure in developing countries using specific data. It was revealed that increase in interest rates induces an increase of

asymmetric information. An efficient bank should decrease its loan portfolio to deal with asymmetric information. The study showed that if the interest rate is so high to the extent that loan portfolio should be null there will be a banking crisis. According to the study, there is a threshold of interest rate which is referred to as a threshold of crisis, which the interest rate on the treasury bills should not exceed.

Ogude et al (2012) examined bank distress determinants in Nigeria with particular emphasis on revealing the contributions of macroeconomic variables to the crisis. The study made use of multiple regression analysis with Error Correction Model (ECM) and the co-integration test indicated that the real exchange rate in the economy contributes to distress among Nigerian banks, though the extent of impact was shown to be non-significant.

Adeyanju (2014) studied code of ethics and professionalism; implication for bank failure in Nigeria using a well structured questionnaire and Pearson's Moment Correlation. He empirically investigated the various causes of Bank failure with particular emphasis on the need to enforce compliance by Banks with the Banking Code of Ethics and Professionalism (BCEP) in order to achieve standardized and efficient banking environment. The study discovered that factors such as insider's abuse on lending, lending to high risk borrowers, microeconomic instability, deficiency in bank regulation and supervision made significant contribution to failure of banks in Nigeria. The study also confirmed that many banks in Nigeria are not necessarily distressed due to unethical practices, but may be due to other means of mismanagement and abuse such as maintaining a high proportion of non-performing loans.

Wu and Hong (2012) examined liquidity risk, market valuation, and bank failures. The study observed that systematic liquidity risk was the major predictor of bank failures in 2008 and 2009, while idiosyncratic liquidity risk played only a minimal role. To enhance the safety and soundness of the banking system, an effective liquidity risk management framework needs to target liquidity risk at both the idiosyncratic and the systematic levels.

Zuzana et al (2013) examined bank failure and excess liquidity in Russia utilized Excess Liquidity Creation Hypothesis (ELCH). The study showed that excess liquidity creation significantly increases the probability of bank failure. The study further suggested that the cost of bank failure can be reduced through an early identification of excessive liquidity creators and enhanced monitoring of their activities by financial authorities.

Adeyeye et al (2012) did a study on predicting bank failure in Nigeria using principal component analysis and D-Score model. In this study, we coupled principal component analysis with discriminant model to predict the probability of bank failure in Nigeria. Our empirical analysis reveals that the warning signal so developed produces a robust result with high prediction accuracy. This is a very promising result as it indicates its invaluable usefulness for regulators in assessing the health status of banks of interest. The analysis of the regression model indicates that the measures of profitability, liquidity, credit risk and capital adequacy are the key predictive financial ratios. In other words, differences in profitability, liquidity, credit risk (asset quality) and capital adequacy (sustenance) are found to be the major distinguishing characteristics between the non-failed (healthy) and failed banks. However, variables for management quality and other bank characteristics like economic conditions and staff productivity are potentially not important predictors of financial problems in Nigerian banks but might make a difference for the group of banks that are facing difficulties. The research methodology employed in this study could be applied to other financial and nonfinancial sectors of the economy.

4. METHODOLOGY

The research work used secondary data sourced from Central Bank of Nigeria Statistical Bulletin from 2009 to 2019. Vector Autoregressive Estimates was used to study the short run relationship while Granger Causality Tests was used to study the effect.

In order to achieve the objective of the study, the model from the work of Elegbe (2013) for a study in Nigeria with slight modifications was used. In their model, the researchers expressed the relationship between bank failures and economic growth model as:

$$GDP = f(CAP, NPL) \text{ -----1}$$

To examine the effect between bank failures and economic development, the modified model of Elegbe (2013)

$$UNE = f(CAR, NPL, LQ) \text{ -----2}$$

Where UNE= Unemployment rate

CAR= Capital Adequacy ratio

LQ= Liquidity ratio

The first step in this analysis is to describe the variables used in the study before we proceed to carry out stationarity test. Stationarity test was conducted using ADF test and PP test. The result of the ADF and PP test is shown in table 2 to 5.

Table 1 Descriptive Statistics

	Mean	Median	Maximum	Minimum	Std.Dev	Obs
UNE	18.38182	19.70000	27.10000	7.800000	6.246250	11
NPL	29675.07	24770.50	57990.20	20128.90	11376.84	11
LQ	48.04545	46.00000	75.80000	30.40000	13.97350	11
CAR	17.50909	16.90000	28.10000	12.80000	3.890361	11

Source: Output Data from E-views 9.0

The characteristics of the data series used in the analysis are presented in table 1. The table shows the summary of descriptive statistics used in the analysis. The mean value was shown to be 18.38182 for UNE, 29675.07 for NPL, 48.04545 for LQ and 17.50909 for CAR. The median value was shown to be 19.70000 for UNE, 24770.50 for NPL, 46.00000 for LQ and 16.90000 for CAR. The maximum and minimum of the series are 27.10000 and 7.800000 for UNE, 57990.20 and 20128.90 for NPL, 75.80000 and 30.40000 for LQ, 28.10000 and 12.80000 for CAR. The series standard deviations are 6.246250 for UNE, 11376.84 for NPL, 13.97350 for LQ, 3.890361 for CAR. The low value of standard deviations which is lower than the mean indicates that the statistical data set are close to the mean (or average) of the data set.

Table 2 ADF Result at Level

Variables	ADF Test Statistic	1%	5%	10%	Order of Integration
UNE	0.030548	-2.816740	-1.982344	-1.601144	Non-stationary
NPL	-2.121215	-4.297073	-3.212696	-2.747676	Non-stationary
LQ	-0.871750	-4.297073	-3.212696	-2.747676	Non-stationary
CAR	-13.40817	-4.297073	-3.212696	-2.747676	Stationary

Source: Researcher's E-view result

Table 3 ADF Result at First Difference

Variables	ADF Test Statistic	1%	5%	10%	Order of Integration
UNE	-2.386973	-2.847250	-1.988198	-1.600140	Stationary
NPL	-2.794832	-4.420595	-3.259808	-2.771129	Non-Stationary
LQ	-2.946230	-4.420595	-3.259808	-2.771129	Non-stationary
CAR	-17.17101	-4.420595	-3.259808	-2.771129	Stationary

Source: Researcher's E-view result

Table 4 ADF Result at Second Difference

Variables	ADF Test Statistic	1%	5%	10%	Order of Integration
UNE	-3.555833	-2.886101	-1.995865	-1.599088	Stationary
NPL	-3.711304	-4.582648	-3.320969	-2.801384	Stationary
LQ	-4.665683	-4.582648	-3.320969	-2.801384	Stationary
CAR	-18.99374	-4.582648	-3.320969	-2.801384	Stationary

Source: Researcher's E-view result

Results of ADF test in Tables 2 to 4 shows that all the variables were integrated in order (2) and in other to confirm the stationarity test the study also used Phillips-Perron (PP) unit root test to confirm the stationarity of the variables.

Table 5 PP Result at Level

Variables	ADF Test Statistic	1%	5%	10%	Order of Integration
UNE	0.027546	-2.816740	-1.982344	-1.601144	Non-Stationary
NPL	-1.942300	-4.297073	-3.212696	-2.747676	Non-stationary
LQ	-0.814508	-4.297073	-3.212696	-2.747676	Non-stationary
CAR	-15.87889	-4.297073	-3.212696	-2.747676	stationary

Source: Researcher's E-view result

Table 6 PP Result at First Difference

Variables	ADF Test Statistic	1%	5%	10%	Order of Integration
UNE	-2.327763	-2.847250	-1.988198	-1.600140	Stationary
NPL	-3.325216	-4.420595	-3.259808	-2.771129	Stationary
LQ	-2.947615	-4.420595	-3.259808	-2.771129	Non-stationary
CAR	-21.94117	-4.420595	-3.259808	-2.771129	stationary

Source: Researcher's E-view result

Table 7 PP Result at Second Difference

Variables	ADF Test Statistic	1%	5%	10%	Order of Integration
UNE	-5.131725	-2.886101	-1.995865	-1.599088	Stationary
NPL	-5.973972	-4.582648	-3.320969	-2.801384	Stationary
LQ	-6.911283	-4.582648	-3.320969	-2.801384	Stationary
CAR	-40.65948	-4.582648	-3.320969	-2.801384	Stationary

Source: Researcher’s E-view result

Phillips-Perron (PP) unit root test in table 5 to 7 proves that only CAR was stationary at level but some were stationary at 1st diff while all the variables was stationary at 2nd diff hence the application of Vector Autoregressive Estimates in the analysis of the variables.

4.1. Diagnostic Test

Normality Test

The normality test was done using the Jarque-Bera Normality test, which requires that for a series to be normally distributed; the Jarque-Bera statistics would not be significant.

Table 8 Normality Test

Component	Jarque-Bera	df	Prob.
1	2.112438	2	0.3478
2	0.682676	2	0.7108
3	0.065583	2	0.9677
4	1.945829	2	0.3780
Joint	4.806526	8	0.7780

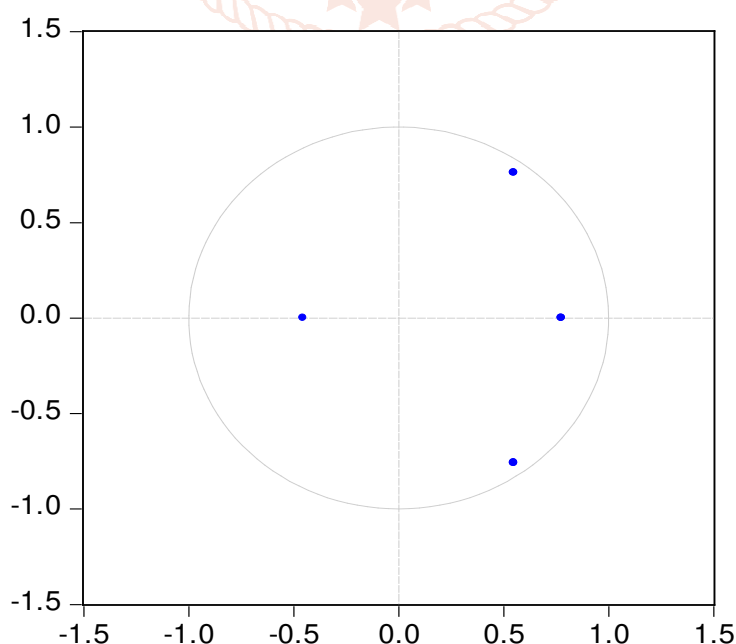
Source: Output Data via E-views 9.0

Normality test in Table 8 shows that the probability value for each of the variables UNE,NPL,LQ and CAR are 0.3478,0.7108,0.9677 and 0.3780 are greater than 5% level of significant which indicates that the variables are normally distributed. Also jointly or when all the variables are combine together the probability value is 0.7780 which indicates that all the variables are normally distributed.

Stability Test

The stability of the VAR model was investigated using the inverse roots of AR characteristic polynomial presented in figure 1.

Figure 1: Inverse Root of AR Characteristics Polynomial
Inverse Roots of AR Characteristic Polynomial



Source: Graphs Using E-view Statistical Package, Version 10

The result shows that the VAR is relatively stable since all dots are within the circle. The reverse would be the case if the dots lie outside of the circled region.

5. Short Run Relationship

Table 9: Results of Vector Autoregressive Estimates Normalised on UNE

Parameters	Coefficient	Standard Error	t-statistic
UNE(-1)	0.323141	0.37819	0.85443
NPL(-1)	-0.000405	0.00025	-1.59413
LQ(-1)	0.119633	0.24091	0.49660
CAR(-1)	-0.103094	0.52608	-0.19597
C	20.56207	15.9590	1.28843

Adjusted R-squared = 0.70 F-Statistic = 20.54256

The result from Table 9 shows that UNE, LQ and C have positive effect on UNE while NPL and CAR have negative effect on UNE. A one percent change in one year lag of UNE, LQ and C will results to a positive change in UNE by 0.32 percent, 0.11 percent and 20.5 percent respectively. On the other hand, a one percent change in one year lag of NPL and CAR will results to negative change in UNE by -0.000405 percent, and -0.103094 percent respectively. On the performance of the individual variables, the results reveal that one year lag of the variables are statistically insignificant given the low values of their t-statistics.

The adjusted R-squared value of 0.70% indicates that, about 70.0% of the variations in UNE are explained by the combined effect of the independent variables. It also implies that the model has good fit in explaining the relationship. Similarly, the F-statistic which measures the overall significance of the model showed a high value of 20.54256 which indicates that the effects of bank failures on Nigeria economic development is statistically significant.

Table 10 Granger Causality Test

Null Hypothesis:	Obs	F-Statistic	Prob.
NPL does not Granger Cause UNE	9	0.49353	0.6433
UNE does not Granger Cause NPL		9.61677	0.0296
LQ does not Granger Cause UNE	9	0.00377	0.9962
UNE does not Granger Cause LQ		80.5814	0.0006
CAR does not Granger Cause UNE	9	0.56787	0.6066
UNE does not Granger Cause CAR		0.96939	0.4537

Source: Output Data from E-views 9.0

The result of granger causality test in table 10 indicates that there is unidirectional causality between unemployment rate, non performing loans and liquidity ratio with causation moving from unemployment rate to non performing loans and liquidity ratio. This shows that increasing rate of non-performing loans and decreasing rate of liquidity ratio combined dealt a serious blow to the banking sector in Nigeria thus leading to the demise of some of these banks.

6. CONCLUSION AND POLICY IMPLICATION

Deposit money banks in Nigeria provides about 40% of employment in the country, as such whenever there is bank run or failure in the country the rate of unemployment in the country tends to increase. As a result of that Nigeria government and financial system regulators has been putting up measures, to avoid the collapse of a single bank in the country since the collapse of a single bank can cause a systematic collapse of the entire financial system. Once the public withdraws their confidence as a result of bank failure in Nigeria, the resultant effect is diversion of deposit from the banking sector to areas where they may not be fully utilized for the overall benefit of the entire economy which may lead to the collapse of the entire financial system.

Empirical research on this topic shows that there are contradictory results as such the study tends to find out the effect of bank failure on the economic development of Nigeria from 2009 to 2019. Descriptive statistics was used to explain the characteristics of the data series, thereafter that the unit root status of the variables was established and was discovered to be intergrated at order I(2). This necessitated the use of Vector Autoregressive Estimates (VAR) model in the study since the study investigates the effect, granger causality will be used as method of data analysis. The result of the analysis shows that bank failure granger causes unemployment rate within the period of the study and is consistent with the study of Elegbe(2013), Uzokwe and Ohaeri (2012), Adeyemi (2011) and Okezie (2011). The study therefore agrees that bank failure in Nigeria increases the rate of unemployment in the country and

the study is anchored on Keynesian economic theory which states that changes in lending rate and credit availability or surplus determines the level of credit contraction for the banking system.

Deposit money banks have seen to provide capital for investment which helps reduce the unemployment rate and improve the well being of the country. As a result of that if , banks are allowed to fail it might cause a systematic collapse of the entire financial system thereby increasing the unemployment rate in the country therefore the study makes the following recommendations, banks must ensure they maintain reasonable and acceptable shareholders fund unimpaired by losses at all times and avoid capital erosion. They must endeavour to develop maturity profile that can accommodate the matching of their assets and liabilities. Every loan granted by each of the banks has to be adequately collateralized and the incidence of insider related credits must be deemphasized to avoid loan losses or huge non-performing loans. The regulatory authorities on the other hand should engage themselves in capacity building to enable them perform their supervisory and regulatory functions as effectively as possible. The CBN must continue to emphasize and enforce the prudential regulation. They must ensure strict compliance of banks with not only the monetary measures but also the provisions of the Banks and Other Financial Institutions Act 1991 (as amended) and the CBN Act 1991 (as amended).

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