Corporate Governance and Credit Risk in the Banking Sector

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Abstract: Corporate governance and credit risk are very important for empirical analysis. Credit risk causes economic downturn as banks fail due to default risk from clients, which has had a negative impact on the economic development of many nations around the world (Reinhart & Rogoff, 2008). By definition, credit risk describes the risk of default by a borrower who fails to repay the money borrowed. The term hedging signals the protection of a business's investments by limiting its level of risk, for example, by purchasing an insurance policy. Diversification is the allocation of financial resources in variety of different investments and has also long been understood to minimize such risk. The capital adequacy ratio is a measure of a bank's capital maintained to absorb its outlying risks. Since there is a lot of competition among banks to attract customers, therefore, it has triggered several innovations in banking services (Aruwa & Musa, 2014). Regulators also require banks to improve internal governance practices in order to ensure transparency and ethical standards to keep the customers satisfied with their products and services. Ambiguity in banks' terms and conditions will make it difficult for customers to select financial products appropriate for their needs, whereas clear terms and conditions allow customers to be more satisfied with the bank's performance (Ho & Yusoff, 2009). Customers expect the financial institutions to have strong policies that can safeguard their interests and protect them. Therefore, poor understanding of effective credit risk and the acceptable risk management strategies by bank managers poses a threat to the commercial banks advancement and customers' interest. This study analyse the credit risk at the second level bank.

Keywords: Credit Risk, Bounds test, Wald test, Banking sector, Corporate governance, Corporate performance etc.

INTRODUCTION

Corporate governance and corporate financial performance have experienced great attention from the academic environment during the last years, being an important theme for debating. An extensive number of researchers (Chbib & Page, 2020; Coletta & Arruda de Souza Lima, 2020; Merendino, and Melville, 2019; Pham and Pham, 2020; Wijethilake & Ekanayake, 2019; Liu, 2019; Song & Kang, 2019; Kuo *et al.,* 2020; Nashier & Gupta, 2020) investigated the importance of corporate governance for the company's performance through examining the relationship using different measures.

Corporate governance has become a key topic in international practice and economic and legal theory. The definitions of corporate governance vary. Corporate governance is certainly not just corporate law. The short-form definition used by the Cadbury Commission in 1992 is to the point and internationally agreed upon: Corporate governance refers to 'the system by which companies are directed and controlled'. Direction and control can come from inside or outside. Internal corporate governance refers to government and control by the organs of the corporations, the board in the one-tier system or the management and supervisory boards in the two-tier system. Accordingly, it is hardly astonishing that much of the corporate governance literature deals with the board.

Empirical evidence, mostly gathered after the financial crisis, confirms this. Banks practicing good corporate governance in the traditional, shareholder-oriented style fared less well than banks having less shareholder-prone boards and less shareholder influence. For banks stakeholder governance and, more particularly, creditor or debtholder governance is more important than shareholder governance. The implications of this for research and reform are still uncertain. A key problem is the composition and qualification of the board. The legislative task is to enhance independent as well as qualified control. The proposal of giving creditors and even supervisors a special seat in the board is not convincing.

In recent times, due to the negative impact of banking distress on several national economies -reinforced by the financial crises of 2008/2009, there have been concerted efforts by scholars to find out factors that cause bank credit risk, and findings from their enquiries so far provided conflicting opinions on the approach and causes of credit risk in the banking industry (Ali and Daly, 2010; Ahmad, 2003; Ariff & Marisetty, 2001; Nkusu, 2011; Bofondi & Ropele, 2011; Louzis et al 2012 etc.). Alas, several of these studies concentrate on developed economies most likely due to data availability while there are just a few studies in this area that focus on developing economies such as Nigeria. Moreover, the main body of the literature on credit risk determinants is dominated by panel data/cross-country studies which do not

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encompass country - specific features. The available single country analyses are constrained by the variety of credit risk determinants evaluated or the short time intervals investigated.

Succinctly, the main purpose of this study is to have an insight on the factors the determine credit risk in the Nigerian banking sector. Therefore, this study will be of immense benefit to policy makers in government, economic and finance scholars, and monetary authorities.

2. LITERATURE REVIEW.

Shleifer and Vishny (1997) define corporate governance as "the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment (p.737)". OECD in 1999 defined corporate governance as "Corporate governance is the system by which business corporations are directed and controlled". Corporate governance today is very important for all the companies. Corporate governance is the system by which companies are directed and controlled (Cadbury Report, 1992). OECD (2015) defines the corporate governance as a set of procedures and processes which helps an organisation to be controlled and directed. The relationship between corporate governance and financial performance was grounded on various analysis' frameworks designed on particular settings and criteria. Differences are also identified in the theories the researchers used, including the agency and signal theory (Tripathi, 2019; Bansal & Thenmozhi, 2019; Sadeh & Kacker, 2020).

Credit risk is considered as the chance of loss that will occur when the loan or any other line of credit by a particular debtor is not repaid (Campbell, 2007). Since 2008, financial experts around the world have researched and analyzed the primary factors underpinning the credit crisis to identify problematic behavior and effective solutions that can help financial institutions avoid catastrophe in the future. Long ago, the Basel Committee on Banking Supervision (1999) has also identified credit risk as potential threat to banking sector and developed certain banking regulations that must be maintained by the banks around the world. Owojori, Akintoye, and Adidu (2011) stated that there are legislative inadequacies in financial system especially in banking system that are effective as well as lack of uniform credit information sharing amongst banks. Thus, it urges to the fact that banks need to emphasize on better risk management strategies which may protect them in the long run. The work of Karoui and Huang (1997) indicates that the super hedging strategy could be implemented to achieve a surplus downside market risk as it possesses a duality of both the super hedging and open hedging approaches. The prices of options can increase due to the volatility of the asset prices. If the prices of the financial instrument are fluctuating, then the price of the options contract might also be influenced as the buyers or sellers will be deriving their profit from the price of the financial security (Hobson, 1998).

3. CORPORATE GOVERNANCE.

In contrast with the long study about the credit risk, corporate governance mechanism has researched only the last three decades. Corporate governance has become a key topic in international practice and economic and legal theory. The definitions of corporate governance vary. Corporate governance is certainly not just corporate law. The short-form definition used by the Cadbury Commission in 1992 is to the point and internationally agreed upon: Corporate governance refers to 'the system by which companies are directed and controlled'. Direction and control can come from inside or outside.

Corporate governance was first developed as a concept and field of research for private listed corporations. This was due to the self-regulatory efforts of stock exchanges and other private institutions that either had certain requirements for admission or set up recommendations on good corporate governance, usually with corporate governance codes, sometimes with the help of the comply or explain-principle set up by legislators. The idea of developing corporate governance standards spread quickly to other sectors, such as to non-listed companies (among them in particular family companies, state-owned enterprises (SOEs) with public corporate governance codes, non-profit organizations and foundations).

In theory, practice and supervision, it is a truism that banks are special as compared to non-banking institutions. This is the very basis for the targeted regulation and supervision of banking as a regulated industry. The unique aspects of banks include the very low capitalization of banks as compared to non-banking entities (particularly when short and long financial maturity periods are matched); the complexity and non-transparency of banks' business activities and structures; the fundamental need for trust and the associated danger of bank runs; and in particular the macroeconomic function of banks as manifested in their central importance for the economy, which in turn gives rise to their being subject to far-reaching legislation and state regulation.

4. EMPIRICAL EVIDENCE.

The Basel Committee has issued the authoritative Guidelines on Corporate governance principles for banks, released in a revised version in July 2015. The Guidelines, while underlining the jurisdictional differences and the necessity of proportionality and differences in governance approaches, set out 13 major principles in respect of banks' corporate governance. They concern (1) The overall responsibilities of boards, (2) Board qualification and composition, (3) The structure and practices of boards, (4) Senior management, (5) Governance and group structures, (6) Risk management functions

The global financial crisis of 2008/2009 has spark-off a renewed interest among academics on the determinants of credit risk in the banking sector. This is necessary because understanding the determinants of credit risk will help policy makers to take the needed steps to avert a possible financial distress (Castro 2013).

Accordingly, existing literatures on the determinants of credit risk have emerged with two sets of factors that determine credit risk: they are the macroeconomic and bank specific factors. The macroeconomic factors relate to the economic-wide conditions that positively or negatively affect the ability of borrowers to service their debt.

Empirical evidences from the literature on credit risk determinants also reveal that bank-specific factors such as asset quality, credit growth, bank capital, bank liquidity, and bank profitability among others influence credit risk of financial institutions (Angbazo 1997; Cheng 2008; Castro, 2013; Gavin and Haussmann, 1996; Berger and DeYoung 1997; Vogiazas and Nikolaidou, 2011; Louzis et al (2012)). Specifically, Angbazo (1997) and Cheng (2008) studies reveal that banks earning assets to total assets which reflect management efficiency has a negative correlation with banks credit risk, implying that efficient credit risk management includes proper credit risk environment, good credit granting process and sustaining suitable credit administration (Greuning and Bratanovic, 2003; Derban et al 2005). More so, rapid credit growth is often associated with a parallel increase of impaired loans (Castro, 2013). The moral hazard hypothesis points out that bank with low capital have the tendency of undertaking excessive lending thereby exposing them to risks such as greater loan losses (Gavin and Haussmann, 1996; Berger and DeYoung, 1997). Furthermore, according to the moral hazard theory, banks with low liquidity will also report higher NPLs (Vogiazas and Nikolaidou, 2011). The impact of bank profitability captured by profitability ratios such as ROA and ROE is ambiguous and is well stated by Louzis et al (2012) through the bad management and procyclical credit policy theory. According to this theory, banks' performance have a negative relationship with future NPLs as low profitability as a result of poor management implies poor skills in credit evaluation and monitoring which translate to more chances of default. Although, the procyclical credit policy hypothesis also claims that good performance has a positive association with future increases in NPLs since bank managers are often interested not only in maximizing profit, but also in improving their reputation. For instance, bank managers may indulge in a liberal credit policy at the expense of future NPLs in an attempt to boost the bank's profitability in the eyes of the market. Thus, current earnings may help pile up NPLs in the future. Corporate Financial Institute has define : A **non-performing loan** (NPL) is a loan in which the borrower has not made repayments of principal and/or interest for at least 90 days. When a bank is unable to recover non-performing loans, it can repossess assets pledged as collateral or sell off the loans to collection agencies.

Bofondi and Ropele (2011) found that NPLs in Italy are determined by macroeconomic factors such as economic growth, the cost of borrowing and the debt burden from the period 1990-2010. Similarly, using cross-country data for both emerging and advanced countries, Liang and Reichert (2012) found that ineffective credit regulations, low capital adequacy ratios, poor institutional capacity, mandatory guidelines on pattern of credit allocation by the government and regulatory authorities and absence of regulation by the regulatory bodies worsen credit risk in the banking sector. Salas and Saurina (2002) studied credit risk determinants in Spanish commercial and savings banks between the period of 1985 and 1997 and find that GDP growth rate, firm and family indebtedness, previous credit expansion, portfolio composition, net interest margin, capital ratio and market power contributed to credit risk. Using the VAR technique, Klein (2013) found that bank credit risk in Central, Eastern and South-Eastern Europe (CESEE) is affected by both macroeconomic and bank-specific factors such as GDP growth rate, unemployment rate, inflation rate, profitability, level of equity and excessive risk taking of the banks. In addition to that, a bi-directional relationship between credit risk and macroeconomic downturns was observed which implies that countries that face loan crisis are vulnerable to economic downturn.

5. RESEARCH DATA AND METHODOLOGY.

Corporate governance concept addressed in the accounting and banking literature in general, and its relationship with the financial performance, in particular, there is limited research focused on carrying out a structured literature review (Arora, 2015; Ng'eni, 2015; Knut, 2016; Azila-Gbettor, 2018).Based on the time frame adopted, the included number of observations per variable is 84; hence it is amenable to the Augmented Dickey Fuller (1979) ADF unit root test, Dickey-Fuller GLS (ERS) DF-GLS unit root test, and the Phillips and Perron (1988) PP unit root test techniques since the probabilities and critical values of these three tests are calculated for at least 20 observations. However, according to Katircioglu, Feridun and Kilinc (2014), Jafari, Othman and Nor (2012), Behera and Dash (2017), and Farhani and Ozturk (2015), the PP and ADF unit root tests have a lower power of rejecting the null hypothesis. Thus, the Kwiatkowski, Phillips, Schmidt, and Shin (1992) KPSS unit root test surpasses the ADF and PP unit root test in eliminating a possible low power against stationary unit root that occurs in them . KPSS has the additional advantage of yielding consistent results for variables with lower number of observation. Based on the foregoing, the KPSS unit root test was adopted. Having found the variables stationary at levels [I(0)] and first difference [I(1)], the bounds co-integration test was conducted in order to establish the existence of co-integration among the variables or not. Having established co-integration, the long run error correction model given below was estimated:

$$\Delta NPL_t = \alpha_0 + \textstyle\sum_x{}^p{}_{=i}\alpha_{1i}\Delta NPL_{t-i} + \sum_x{}^q{}_{=i}\alpha_{2i}\Delta GDP_{t-1} + \sum_x{}^q{}_{=i}\alpha_{3i}\Delta INF_{t-1} + \sum_x{}^q{}_{=i}\alpha_{4i}\Delta INT_{t-1} + \sum_x{}^q{}_{=i}\alpha_{5i}\Delta UNEMP_{t-1} + \sum_x{}^q{}_{=i}\alpha_{6i}\Delta EXCH_{t-1} + \sum_x{}^q{}_{=i}\alpha_{7i}\Delta LDR_{t-1} + \sum_x{}^q{}_{=i}\alpha_{8i}\Delta ROA_{t-1} + \sum_x{}^q{}_{=i}\alpha_{9i}\Delta ROE_{t-1} + \sum_x{}^q{}_{=i}\alpha_{10i}\Delta BCAR_{t-1} + \lambda ECT_{t-1} + e_t$$

WHERE:

NPL= Ratio of Non-Performing Loans to Total Loans.

GDP= Gross Domestic Product Annual Growth Rate- A Proxy for Economic Growth.

INF= Inflation Rate.

INT= Interest Rate .

UNEMP= Unemployment Rate.

EXCH= Real Exchange Rate.

LDR= Loan Deposit Ratio.

ROA= Return on Asset- A Proxy for Bank Profitability.

ROE= Return on Equity- A Proxy for Bank Profitability.

BCAR= Bank Capital to Asset Ratio.

$\lambda=(1-\sum^{p}_{i=1}\vartheta i)$= Speed of adjustment parameter with negative sign.

$ECT = (NPL_{t-I} - \Theta NPL_t)$ = Error Correction Term.

$\Theta = \sum^{q}_{i=0}\beta_i/\alpha$ = Long run parameter.

$\alpha_{1i}\ \alpha_{2i}, \ldots\ldots\ldots \alpha_{10i}$ = the short run dynamic coefficients of the models adjustment to long run equilibrium.

While GDP, INF, INT, UNEMP, and EXCH are macroeconomic variables captured in the model; LDR, ROA, ROE, and BCAR are the bank specific factors.

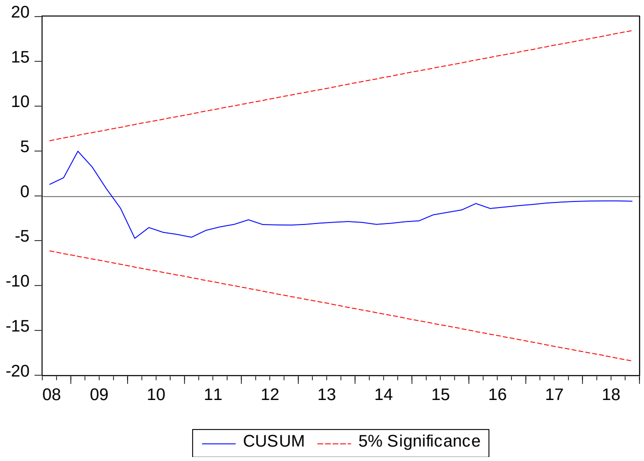

Fig. (1). CUSUM Stability Test.

From Fig. (**1**) above, the blue line lies between the two red lines indicating that the long run error correction model is stable and devoid of structural changes.

6. CONCLUSION

This paper provides an analysis of credit risk in the field of corporate governance and performance in banking sector conducted by researchers in commercial banks (second level banks). A series of characteristics of the scientific papers were considered for the analysis: research theories, research methodologies, research methods, the population's characteristics, the frequency of the governance and performance keywords, and main metrics used for quantifying corporate governance and corporate performance. credit risk, corporate governance mechanism has researched only the last three decades. The issue refers to the system by which corporations are directed and controlled. The mechanism is about accountability, ownership and control, compensation and incentives. It can be denied that, a successful business cannot lack "healthy" corporate governance, so, this young scrutiny field deserves attention of society and practitioners.

Banks are special, and so is the corporate governance of banks and other financial institutions as compared with the general corporate governance of non-banks. Empirical evidence, mostly gathered after the financial crisis, confirms this. Banks practicing good corporate governance in the traditional, shareholder-oriented style fared less well than banks having less shareholder-prone boards and less shareholder influence.

The special governance of banks and other financial institutions is firmly embedded in bank supervisory law and regulation. Starting with the recommendations of the Basel Committee on Banking Supervision, many other supervisory institutions have followed the lead with their own principles and guidelines for good governance of banks. In the European Union, this has led to legislation on bank governance under the so-called CRD IV (Capital Requirements Directive), which has been transformed into the law of the Member States. Nzotta (2018) argue that in certain circumstances, there is a conscious attempt by the borrower to defraud the bank by proposing business activities which are not viable or intended for implementation thereby diverting the funds.

In general, even though the model of the paper studying on the link between default risk, distance to default and bank credit risk indicators and corporate governance may face some weaknesses, it can be a reference for the governance body of banks and people who are interested in this topic. For the further research, it is suggested that a larger sample size in longer period of time should be used to establish a better model.

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