

BANK MARKET CONCENTRATION, EQUITY CAPITAL AND STABILITY OF LISTED DEPOSIT MONEY BANKS IN NIGERIA: EVIDENCE FROM PANEL ARDL APPROACH

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ABSTRACT

Banks are the oil that lubricates the wheels serving as connecting rod propelling economic growth and development.

Therefore, bank stability is crucial because of the intermediation role banks perform. Improper intermediation led to the global financial crisis (GFC) of 2007/2008 that further resulted in most banks concentration to avoid system instability. The Nigerian banking system suffered instability at pre-consolidation due to equity capital erosion caused by exacerbation of nonperforming loans, unprofitability and illiquidity of the system. This necessitated banks

Introduction

Banks are the oil that lubricates the wheels that keep the economy turning. Their stability is crucial for the intermediation process of meeting both customers demand on their deposits, and also allocate credits to the deficit unit of the economy, serving as connecting rod to other sectors, propelling growth and development (Vallascas and Keasey, 2012; Ye *et al.*, 2012). The Global Financial Crisis (GFC) of 2007/2008 that lingered to 2009 led to concentration of top US, France, and UK banks with a bailout support of \$115billion, \$500billion and \$850billion respectively (Lall, 2014; Muritalla *et al.*, 2018). The contagion effect affected eight Nigerian banks that enjoyed a bail out support of ₦620billion (Muritalla *et al.*, 2018), following a stress test by the Central Bank of Nigeria in 2009, after the consolidation in 2005 that resulted in concentration of the banks. Concentration can be stability enhancing (concentration-stability hypothesis), or can lead to fragility of the banking system (concentration-fragility hypothesis) (Deltuviate, 2010; Shijaku, 2017)

Nevertheless, the health, soundness and stability of banks can be driven by market forces or articulated robust policies such as consolidation and concentration which can impact on bank stability (Chu, 2015; Kohler, 2015; Pawlowska, 2016; Raji *et al.*, 2017). Bank market concentration increases market power in equity capital and profitability, and market share in assets, deposits, credits, minimal nonperforming loans to significantly impact the stability of the banks (Barra and Zotti, 2019). Bank concentration enhances capitalization which is regarded as the bedrock for safe, sound and stable banking system, ensures competitive edge, provides better and value-added services, increases earnings (Torbira and



consolidation in 2005 that further led to the concentration of the Nigeria's Deposit Money Banks (NDMBs). Despite concentration the NDMBs manifest symptoms of instability. The objective is to examine the effect of banks equity capital on the stability of NDMBs. Therefore, the study empirically investigated the concentration-stability nexus using quarterly dataset of equity capital, concentration ratio, net interest income and firm size sourced from the annual reports and accounts of the banks over the period 2006 and 2020. The study employed the panel ARDL model along the z-score for analysis. Results for the long-run and short-run ARDL estimate revealed absence of statistical association between equity capital and bank stability. Both net interest income and firm size negatively and insignificantly impacted equity capital. However, market concentration level was positive and significant in the long-run but positive and insignificant in the short-run. It was recommended that government and regulatory authorities to reconsider recapitalizing existing NDMBs by permitting interaction of market forces such that only resilient banks can thrive.

Key Words: Bank Market Concentration, Bank Stability, Bank Market Power, Z-score, panel ARDL

Zaagha, 2016; Odour *et al.*, 2017), enhances efficiency, profitability, and stability because of lower funding cost arising from lower bankruptcy cost (Kohlscheen *et al.*, 2018; Yusgiantoro *et al.*, 2019), and ensures a stable financial system (Ali and Puah, 2019). Bank market power implies banks capacity to influence the market price of its products or services by controlling its supply and demand; increase bank profitability (Barra and Zotti, 2019); enhance equity capital and liquidity with proportionate increase in assets, deposits, credits, and lower nonperforming loans for solvency and stability of the banks (Akins *et al.*, 2016; Yusgiantoro *et al.*, 2019).

In Nigeria, the problem stemmed from banks excessive influence on the market price by controlling the demand and supply of financial services which should have enhanced equity capital through increased profitability. Thus, what is the certainty that the concentration of the Nigerian Deposit Money Banks (NDMBs) have enhanced equity capital and stability of the banks? The objective is limited to examining the effect of market power in equity capital along the impact of net interest income and total assets as control variables on bank stability using the z-score as response variable for fourteen (14) listed NDMBs for the period 2006 and 2020. The study also revealed the concentration environment of the NDMBs for policy makers, while employing panel ARDL for analysis adding a dimension to the concentration-stability hypothesis.

The rest of the study is structured into literature review, methodology, data presentation and discussion, and conclusion and recommendations.

Literature Review

Conceptual Review

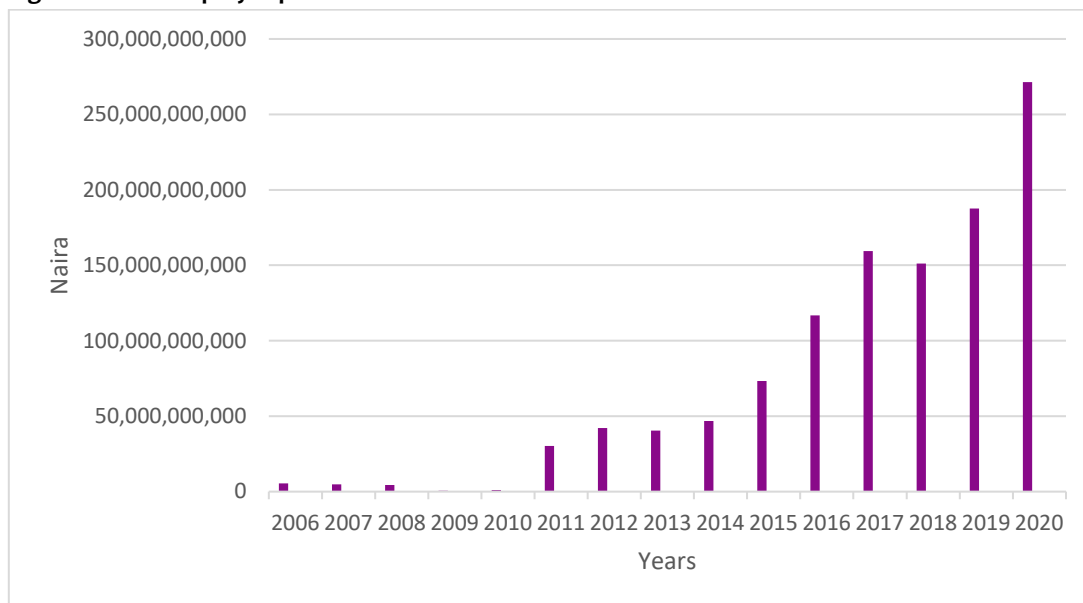
Many researchers have separately investigated the linkages between concentration and bank performance (Nguyen and Nghiem, 2016; Barra and Zotti, 2018; Qiubin, 2020), concentration and credit allocation for firms investments (Abubakar and Esposito, 2012; Moretti, 2012; Saeed and Vincent, 2012; Saeed and Sameer, 2015; Han *et al.* 2015; Chauvet and Jacolin, 2017; Liu *et al.*, 2020), concentration and competition (Kasman and Kasman, 2015; Khen, 2017; Owen and Pereira, 2018; Lucotte and Reigl, 2020), concentration and interest income margin and volatility (De Haan and Poghosyan, 2012; Kasman and



Kasman, 2013; Prao and Kamalan, 2019; Yao and Eugene, 2019), concentration and efficiency (Nguyen and Stewart, 2013), concentration and nonperforming loans (Diallo and Zhang, 2017; Kusi *et al.* 2020), nonperforming loans and bank stability (Atoi, 2018), and few on bank capital and bank stability (Tran *et al.*, 2022).

Generally, capital is required to anchor a business. It is an essential element reposing confidence and permits a bank to engage in banking business (Ikpefan, 2012). Inadequate bank capital can lead to a crisis of confidence in the banking system to the extent that the original function of supporting the volume, type and character of a bank's business, meet customers' demands on their deposits, provide for the possibilities of losses, and to enable banks to meet a reasonable credit need of their economies can be eroded (Eugene and Mouhamadou, 2015). Capital serves as a buffer for absorption of losses and manage toxic assets, insolvency, protects depositors fund, gives competitive edge, use to acquire relevant technology, engage competent manpower, enables provision of value-added services, increase earnings, and ultimately promote the stability and efficiency of the banking system (Oduor *et al.*, 2017). Major Nigerian banks have maintained a relatively stable capital adequacy ratio (CAR) and therefore have made the banking sector relatively stable with CAR of national banks above the industry's average of 10.50%, recording 17.1%, 18.9%, 12.9%, and 12.3% in 2011, 2013, 2014, and 2015 respectively (CBN, 2018). As depicted in figure 2. 1, the early years of the reform showed banks had equity capital of ₦5.36 trillion, ₦4.85 trillion, ₦4.38 trillion in years 2006, 2007, and 2008 respectively, with depleting equity of ₦625.61 billion in 2009, and ₦1.02 billion in 2010. This corroborates with CBN (2012) of the need to recapitalize the Nigerian banks. However, by trend observation, the banking system enjoyed consistent and steady growth in increased equity capital of ₦30.24 trillion, ₦42.11 trillion, ₦46.91 trillion, to a magnificent amount of ₦271.42 trillion in 2011, 2012, 2013, and 2020 respectively. This agrees with CBN (2018) assertion that the Nigerian banking system maintains steady growth in capital adequacy ratio for a reasonable period.

Figure 1. Banks' equity capital



Source: Researcher's work, 2023



Thus, capital enhances adequate liquidity, sustain unplanned losses, enable banks adopt less risky activities because risk-shifting incentives are minimized, more efficient loan monitoring and better credit risk management (Tran *et al.*, 2022).

Theoretical Review

Pro-concentration (concentration-stability) theory

The pro-concentration theory was pioneered by Tibor Scitovsky in 1955. A firm's capital base is enhanced through consolidation that often results in concentration of the industry. Concentration confers competitive edge on a bank with increasing size, attracts higher deposits, acquire relevant technology, engage quality manpower and serve as buffer against insolvency (De Haan and Poghosyan, 2012). It enables the bank absorb shocks in the market, manage toxic assets and protect depositors fund (Cifter, 2014). Concentration also positions the bank to offer better and value-added services while increasing its earning capacity promoting bank stability (Kohler, 2015). Concentration increases bank's potentials to compete effectively at the national, regional and global levels.

Extant literature in banking sector concentration (for example, Abuzayeed *et al.*, 2018) argue that economies of scale drives bank mergers and acquisitions (increasing concentration), so that increased concentration goes hand-in-hand with efficiency improvement reinforcing banking stability. A concentrated banking market might lead to operational efficiency, enjoy economies of large scale, enjoy proportionate savings in cost, increase production due to increasing size, enhancing bank earnings, engendering stability (Abuzayeed *et al.*, 2018)). However, the theory is criticized for colluding to charge higher rents, prevents firms' access to availability of credits for investment for sustainable development, complex to supervise and monitor, opaque, high incentive in risk-taking behaviour and therefore too-big-to fail due to coverage by regulatory authorities and government.

Empirical Review

Banks equity capital

In understanding the effect of bank capital on stability, Ovi *et al.* (2014), investigated market power, credit risk, revenue diversification and bank stability of a sample of 153 banks of the South East Asian Nations (SEAN). Data were sourced from the bankscope data base published by Fitch Ratings Bureau Van Dijk for the period 1998 and 2010. The Lerner Index and the z-score, along the generalized method of moment were used for measurement and analysis. It was found that banks with greater market power in capitalization were better able to manage their credit risk and ensured stability of the banks. To support the claim that capitalized banks are more efficient and stable, Rachdi and Bouheni (2015) investigated the efficiency of capital requirement in reducing risk-taking behaviour of banks in Tunisia. Data were sourced from a sample of 11 banks for the period 2000 and 2013. A simultaneous equation framework consisting of two and three stage ordinaries least square, chi-square statistic proven by random and fixed effects were applied. Empirical results proved that increased capital proportionately reduced risk-taking behaviour and enhanced stability because concentrated or larger banks are the best managers of their risk through experience and diversification. To understand the impact of bank capital on credit provision and bank stability, Lambert *et al.* (2016) investigated on a sample of banks with 327 observations from developed and emerging economies for the period 2002 and 2013. Data were sourced from the World Bank Development Indicators (WBDI) of the International Monetary Fund (IMF), and employed the z-score technique for analysis. Empirical evidence proved aggregate bank stability with higher capital buffers. However, more appropriate analytical techniques such as the generalized



method of moment or Granger causality along the z-score would have been adequate for robustly result.

The impact of equity capital on financial stability at the consolidation of Indonesian banks was examined by Yusgiantoro *et al.* (2019) for the period 2010 and 2015. Data were sourced from the financial statements of 122 commercial banks, while the z-score statistic was used to analyze for bank risk. It was found that greater market power by bank capital was associated with lower insolvency risk pointing that bank consolidation was beneficial for bank stability.

Taking aggregate data for 133 developed and emerging economies, Tran *et al.* (2022) investigated how market concentration and capital relate to bank stability. Data were sourced from the Global Financial Development Database and the World Development Indicator data set for the period 2002 and 2020. The z-score and the generalized method of moment (GMM) were used to analyze for stability. Empirical results showed that banks in more concentrated markets were more stable, and capital significantly influenced bank stability in emerging economies. It was also proved that market concentration positively enhanced capital buffer on bank stability.

Methodology

Source of Data

This study used documented and existing data from the Nigeria Stock Exchange annual reports, the Central Bank of Nigeria Statistical Bulletin, and audited annual reports and accounts of the banks' population and sample from 2006 to 2020 (Onabanjo, 2017).

Method of data Analysis

The panel autoregressive distributive lagged (ARDL) approach was applied regardless of whether unit root level of stationarity is I(0), I(1), or both I(0) and I(1) (Sulaiman and Abdul-Rahim, 2018). Using panel ARDL, both long-run and short-run coefficients are produced at once (Sulaiman *et al.*, 2015). In order to resolve the bias due to heterogeneous slopes in dynamic panels, Pesaran *et al.* (1995), suggested the Mean Group (MG) model. While the Pool Mean Group on the other hand, can be applied in order to detect the long and short run association between the dependent and independent variables and also investigate the possibly heterogeneous dynamic issue across firms (banks) (Pesaran *et al.*, 1999). The dynamic Fixed Effect (DFE) estimator is remarkably similar to PMG estimator, it confines the coefficient of the co-integrating vector to be equal across all panels in the long run. The Dynamic fixed effect model allows panel-specific intercepts and also calculate the standard error while making allowance of intragroup correlation. According to Baltagi *et al.* (2000), fix effect (FE) models are subject to a simultaneous equation bias from the endogeneity between the error term and the lagged dependent variable. The Hausman test was performed to measure whether there was a significant difference between the PMG, MG and DFE.

Model Specification

Adapting Atoi (2018), Tran *et al.* (2022), the model was modified to include the impact of net interest income and firm size to determine bank stability. The function of the model is specified as:

$$\Delta BKS_{it} = \alpha_0 + \alpha_1 \Delta BKS_{it-1} + \alpha_2 \Delta EQT_{it-1} + \alpha_3 \Delta CRL_{it-1} + \alpha_4 \Delta NII_{it-1} + \alpha_5 \Delta FSZ_{it-1} + \beta_1 BKS_{it-1} + \beta_2 EQT_{it-1} + \beta_3 CRL_{it-1} + \beta_4 NII_{it-1} + \beta_5 FSZ_{it-1} + \varphi z_{t-1} + U_t \dots \dots \dots 1$$

Where:



BKS_{it} = stability of bank i in time t, EQT_{it} = Equity of bank i in time t, CRL_{it} = Concentration level of bank i in time t, NII_{it} = Net interest income of bank i in time t. (control variable)

FSZ_{it} = Firm size of bank i in time t. (control variable)

i = number of banks (1, 2, 3,14)

t = quarterly data from 2006 to 2020

u_i = bank error term

z = error correction variable

\emptyset = coefficient of error correction

α_0 = Constant intercept

α_1 to α_6 = the alpha coefficients of the independent variables.

β_1 to β_2 = the beta coefficient of the independent variables

Data Analysis

Table 4.1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min
Max				
bks	840	5.166293	17.78003	-16.21566
eqt	840	15.39475	5.457377	0
nii	840	13.67495	4.639232	0
clr	840	.0221829	.0897408	0
fsz	840	18.15374	4.686363	0

Table 4.1 shows the descriptive statistics for the variables, bank stability (BKS), market power in equity capital (EQT), bank concentration (CLR), net interest income (NII), and firm size (FSZ). The results indicated that the mean scores of the variables range between 18.154 and -5.26e+07. The standard deviation ranges between 17.78 and 0.0897. The standard deviations are small compared to their mean values respectively. This implies that the statistical mean provides a good fit of the observed data (Field, 2009). Thus, the data are normally distributed.

Table 4. 2: Correlation Matrix

	bks	eqt	nii	clr	fsz
Bks	1.0000				
eqt	0.1494	1.0000			
nii	-0.0803	0.7496	1.0000		
clr	-0.0211	0.2834	0.1779	1.0000	
fsz	-0.2057	0.6025	0.7305	0.2470	1.0000



Table 4. 2 shows result of the matrix correlation for bank stability (BKS), market power in equity capital (EQT), bank concentration (CLR), net interest income (NII), and firm size (FSZ). The result revealed that market power in equity capital (EQT) correlated positively to bank stability. While bank concentration (CLR), net interest income (NII) and firm size (FSZ) negatively correlated with bank stability. The correlation revealed that market power in equity capital correlated to bank stability by 14.94%. However, there is a negative correlation between bank concentration (CLR), net interest income (NII) and firm size (FSZ) on bank stability by 8.03%, 2.11% and 20.57% respectively. The result revealed that correlation among the variables is weak.

Table 4. 3: Levin, Lin Chu (LLC) and Im, Pesaran Shin (IPS) Unit root Tests

Variable	IPS@ Level	IPS@ 1 st Difference	Order of co-integration
BKS	-2.09**	-16.03**	I(0)
EQT	-3.93**	-16.14**	I(0)
NII	-3.21**	-16.16**	I(0)
CLR	-2.44**	-15.81	I(0)
FSZ	-3.22**	-16.46**	I(0)

Source: E Views 10 analysis of data

Table 4. 3 shows the result of the unit root test for the variables of the study, which was derived from the Levin, Lin Chu (LLC) and Im, Pesaran Shin (IPS) methods. The result shows that bank stability (BKS), market power in equity capital (EQT), bank concentration (CLR), net interest income (NII) and firm size (FSZ) were stationary at level with integration order of I(0). Hence, this study applied the Panel-ARDL method of analysis.

Estimation, Results and Discussion

Table 4.4

Results of Mean Group (MG), Pooled Mean Group (PMG) and Dynamic Fixed Effect (DFE) Estimates

	Mean Group MG		Pooled Mean Group PMG		Dynamic Fixed Effect DFE	
	Coeff	P-value	Coeff	P-value	Coeff	P-value
	Long-Run					
EQT_{it}	-1.3246	(0.409)	1.7128	(0.001)**	0.6223	(0.250)
CRL_{it}	311.23	(0.066)***	6.5580	(0.326)	4.7772	(0.817)
NII_{it}	2.4006	(0.327)	-0.1302	(0.585)	0.4489	(0.490)
FSZ_{it}	-1.5847	(0.246)	-1.5414	(0.000)**	-1.3058	(0.011)**
	Short-Run					
$ECM(-1)$	-0.1702	(0.000)**	-0.0194	(0.085)***	-0.1694	(0.000)**
ΔEQT_{it}	3.1373	(0.225)	3.0063	(0.216)	0.3279	(0.025)**
ΔCRL_{it}	25.255	(0.868)	77.079	(0.639)	5.9705	(0.499)
ΔNII_{it}	-2.4865	(0.331)	-3.3084	(0.335)	0.6391	(0.000)**
ΔFSZ_{it}	-0.2819	(0.658)	-0.5095	(0.441)	-1.2549	(0.000)**
CONST	3.5978	(0.163)	0.4046	(0.195)	2.2792	(0.075)



N	826	826	826
Hausman Test (1)	PMG vs MG P-value = 0.0210		
Hausman Test (2)	PMG vs DFE P-value = 0.5086		
Hausman Test (3)		DFE vs MG P-value = 0.0016	

Dependent variable: $(BKS)_{it}$ Note: * ** *** show significance at 1%, 5% and 10% respectively

Table 4.4 shows the summary of results for the Mean Group (MG), Pooled Mean Group (PMG) and Dynamic Fixed Effect (DFE). The Hausman specification test in table 4.4 shows that the Mean group (MG) is a better estimator than the Dynamic Fixed Effect (DFE) and Pooled Mean Group (PMG) model. The first Hausman test result shows a low p-value of 0.0210. This implies that MG is a better estimator. For second Hausman test, the p-value is 0.5086 which signifies that the PMG is a better estimator. The third Hausman test with p-value of 0.0016 is less than 0.05 maintained the MG estimator as the best estimator. Hence, all interpretations are based on the MG outcome.

Long-run Relationships

The relationship between market power in equity capital and stability of Nigeria's deposit money banks in the long-run, revealed that market power in equity capital has a negative and insignificant effect on the stability of the Deposit Money banks under review from 2006 to 2020. The beta coefficient of the variable is -1.3246 and the p-value of 0.406. That is, a unit increase in the predictor variable leads to a decrease of the response variable by the value of the beta coefficient. The implication of this finding is that increase in market power in equity capital, decreased the level of bank stability. Therefore, market power in equity capital has not increased the stability of Nigeria's Deposit Money Banks.

From the result, it also revealed that the effect of concentration level (CLR) on bank stability is positive and significant at 10% level of significance with coefficient value of 311.23 and the p-value of 0.066. By this, it means that the increase in the concentration level significantly increased the stability of the selected banks under study. It indicated that the consistent increase in market concentration will consistently increase bank stability. The effect of the control variables, net interest income (NII) and firm size (FSZ) showed that NII has a positive and an insignificant effect on stability while, firm size (FSZ) has a negative and insignificant effect on bank stability.

Short-run Relationships

Consequently, the following outcomes obtained from the short-run relationship between the independent variables and bank stability are: the result of the ECM(-1) revealed that there is a long-run equilibrium relationship among the variables and due to the presence of the unit root, it takes a very low speed of 17.02% for disequilibrium caused by the presence of unit root to adjust to equilibrium in the following quarter. The relationship between market power in equity capital and bank stability in the short-run, revealed that market power in equity capital has a positive and insignificantly effect on the stability of the Deposit Money banks under review from 2006 to 2020. The beta coefficient of the variable is 3.1373 and the p-value of 0.225. The implication of this finding is that in the long-run, market power in equity capital (EQT) was negative but in the short-run, market power in equity capital brought about increase in bank stability at an insignificant rate. From the result, it revealed that in the short-run,



the effect of market concentration (CLR) on bank stability (BKS) was positive with coefficient value of 25.255 and the p-value of 0.868. By this, it means that the increase in the market concentration level insignificantly increased the stability of the selected banks under study. This agrees with theoretical result in appendix 2a. Again, in the long-run the relationship was equally positive, implying that market concentration caused banks to remain stable. The changes in control variables, net interest income (NII) and firm size (FSZ) were both negative to bank stability.

Test of Hypotheses

H₀: Market power in equity capital has no statistical significant effect on the stability of Nigeria's deposit money banks.

Decision rule

The decision rule is that if the p-value is less than the level of significance of 0.05, the null hypothesis will be rejected while the alternate hypothesis is accepted. But if the p-value is greater than the level of significance at 0.05, accept the null hypothesis and reject the alternate. From Table 4.4, the relationship between market power in equity capital and stability of Nigeria's deposit money banks revealed that the p-values of market power in equity capital in the long-run and short-run are 0.409 and 0.225. Since the p-values are greater than the level of significance at 0.05, we fail to reject the null hypothesis and reject the alternate hypothesis. Therefore, market power in equity capital has no significant effect on the stability of Nigeria's deposit money banks.

Discussion

The result of testing hypothesis one indicated that market power in equity capital has no significant effect on the stability of Nigeria's deposit money banks. This finding is inconsistent with that of Ovi *et al.* (2014), which investigated market power, credit risk, revenue diversification and bank stability of a sample of 153 banks of the South East Asian Nations (SEAN). It was found that banks with greater market power in capitalization were better able to manage their credit risk and ensured stability of the banks. The result is also inconsistent with the study of Lambert *et al.* (2016) that investigated the impact of bank capital on credit provision and bank stability for a sample of banks with 327 observations from developed and emerging economies for the period 2002 and 2013. Empirical evidence proved aggregate bank stability with higher capital buffers. Similarly, the result is not in agreement with the study of Yusgiantoro *et al.* (2019) that studied the impact of equity capital on financial stability at the consolidation of Indonesian banks for the period 2010 and 2015. Data were sourced from the financial statements of 122 commercial banks, while the z-score statistic was used to analyse for bank risk. It was found that greater market power by bank capital was associated with lower insolvency risk pointing that bank consolidation and concentration was beneficial for bank stability.

The result is also inconsistent with Tran *et al.* (2022) that took aggregate data for 133 developed and emerging economies for the period 2002 and 2020, investigated how market concentration and capital relate to bank stability. The z-score and the generalized method of moment (GMM) were used to analyse for stability. Empirical results showed that banks in more concentrated markets were more stable, and capital significantly influenced bank stability in emerging economies. It was also proved that market concentration positively enhanced capital buffer on bank stability. The findings did not support the pro-concentration theory that postulates competitive edge for concentrated firms possessing increased capital to acquire relevant technology, engage quality manpower, enhance efficiency, serves



as buffer against insolvency to absorb shocks in the market, manage toxic assets, protect depositors fund, offer better and value-added services while increasing its earning capacity promoting bank stability. The implication of this is that Nigeria banks are far from being competitive and stable.

Conclusion and Recommendation

The study adopted ex-post-facto and correlations design. The null hypothesis was analyzed at 5% level of significance using the panel autoregressive distributive lag after testing for stationarity and unit root using the Levin Lin Chu, Im Pesaran Shin method. The population as well as sample of study consisted of the only fourteen (14) listed or quoted deposit money banks in Nigeria. Data for the study were sourced from the Central Bank of Nigeria, the Nigerian Stock Exchange (NSE), and the annual reports and accounts of the sample deposit money banks. Therefore, the validity of the data was reliable because of their source. Based on the data analyzed, the major findings both at long and short-run was market power in equity capital had a negative and insignificant effect on the stability of Nigeria's deposit money banks. There was no statistical association between market power in equity capital and bank stability. Therefore, equity capital did not increase bank stability.

Market concentration level was positive and significant in the long run but positive and insignificant in the short run. Thus, Nigeria's banks concentration level did not increase the stability of Nigeria's Deposit Money Banks. Both net interest income and firm size had negative and insignificant impact on equity capital. Government and regulatory authorities to reconsider recapitalization of existing banks by permitting concentration through the interaction of market forces of demand and supply and not by regulatory recapitalization policy that compressed the numbers of banks in a concentrated structure as too-big-to-fail with weak performance.

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