

CAPITAL STRUCTURE OF SICK BANKS AND IMPLICATIONS ON CORPORATE PERFORMANCE AND LOAN RECOVERY: AN EMPIRICAL EVIDENCE FROM NIGERIA'S DEPOSIT MONEY BANKS

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Abstract

The study investigated capital structure of sick banks in Nigeria and the impacts on corporate performance and loan recovery from 2012-2021. The population of the study comprised twenty-four(24) Deposit Money Banks listed on Nigerian Stock Exchange(NSE) of which three (3) have been adjudged to be sick by the regulatory body. Secondary data were obtained from the Nigerian Stock Exchange (NSE) Fact Books and the banks' Audited Annual Financial Statements for the period covered by the study. Panel pooled ordinary least square estimation technique was adopted in analysing the data. Results showed highly geared capital structure among the sick banks with a high profile of non-performing loans which negatively affected corporate performance. It also revealed that the banks could not maintain an independent diversified loan portfolio devoid of executive interference. Excessive loan concentrations aggravated the banks' liquidity and solvency appraisals. The findings clearly revealed that the banks experienced sharp declines in most of the vital ratios which snowballed poor performance and poor loan recovery. The study concluded that the capital structures of sick banks has a direct negative relationship with corporate performance and loan recovery which significantly influenced by the degree of debt financing. The study therefore recommended that balancing the capital optimal mix of sick banks is an anti-dose to an improved corporate performance and recovery of operational loans of the banks in Nigeria.

Keywords: Capital Structure, Sick Banks, Corporate Performance, Loan Recovery, Pooled Ordinary Least Square Estimator.

1.0 INTRODUCTION

Banking sector is the financial nerve center and economic hub of any domestic economy. It is the focus and pillar of a fast growing domestic financial system. Banks are financial intermidiations and live wires of a surviving economy that provide loanable fund and loan products to customers' requests and demands for private, domestic and commercial purposes(Odewole&Salawu,2016; Ahmed, Ningi & Dalhat, 2018; Popoola & Sulainman, 2020). Banks intervene and contribute to economic growth within a domestic economy. These responsibilities are often achieved through their intermediation functions, investment options and generally financing of economic activities. Apart from banks' primary responsibility of accepting customers' deposits, they are also in business of creating bank assets, lending money, managing liabilities which are funded by customers' deposits or other liabilities within





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their disposal (Alhassan Ibrahim & Shani 2021; Ünvan & Yakubu, 2020; Okeke, 2023). The Deposit Money Banks (DMBs) are generally partitioned into three categories based on their susceptibility to corporate failure and operating performance (Alman, 1968, 1986; Odewole &Salawu, 2016, Popoola & Sulaiman, 2020). A bank is sick when its solvency is impaird with interrupted liquidity which can only be redeemed with an aggressive improvement in its strategic business direction or managerial capabilities, financial resources, risk management, quality of management and risk profile (Anande-Kur, Avanenge & Agbo, 2020).Sick banks are generally characterised with excessive loan expansion programme, with little or no regards to good asset quality and collateral securities as condition precedents. They are evidenced with dominant features of immediate or potential threats to liquidity and solvency (Haruna & Paul, 2017; Igbinosa & Ogiemudia, 2022). Capital structure of a firm predominantly focuses on both equity capital and debt combination employed to finance entity's overall operations for growth potentials and profitability (Alhassan Ibrahim & Shani 2021, Ünvan & Yakubu, 2020; Okeke, 2023). Equity capital arises from ownership shares and claims to cash flows and profits. It includes common stock, preferred stock, or retained earnings. Debt capital involves bond issues or loan commitments chanelled for firms' productive capacity (Arie, Ratna & Layyinaturrobaniyah, 2019, Tuovila, 2023).Capital structure is a mix of fund in the ratio of debt-to-equity, which defines the company's borrowing practices and level of risk to the company. A highly geared company is always charaterizsed with a more aggressive capital structure and a rising potential of greater risk to investors (Odewole, Obadeyi & Akande, 2023, Isah, 2019, Opoku-Asante, Winful, Sharifzadeh, & Neubert, 2022). However, an unending puzzle is whether banks' capital structure has a direct bearing on banks' corporate performance and loan recovery. Or whether banks' weak optimal capital mix structure can impede corporate performance and stifles the process of recovering loans. The solution to the puzzles is the focus of the work. There have been a quite good number of works from previous authors and scholars on banks' capital structure and performance (Igbinosa & Ogiemudia, 2022, Anande-Kur, et al.,2020, Okeke,2023,Odewole el tal,2016).However, none of the previous works has considered the capital structure of sick banks and the implications on corporate bank performance and loan recovery. The lacuna is the focus of the research. The anchor of the study is pecking order theory and drive the rest of the work. The structure of the whole paper is as follows: after the introductory part, section 2 reviews the literature for the study. The methodology is contained in chapter 3 while interpretation of results and discussion of findings are in chapter 4 of the work and chapter 5 concludes the work with policy implications and recommendations.

2.0 LITERATURE REVIEW

Banking sector in Nigeria has witnessed significant transformations over a period of time, due to numerous systemic challenges faced in the industry, including the ailing banks. One of the critical aspects that contribute to bank sickness or strength is the capital structure of banks finances (Igbinosa et al, 2022). The capital structure is a vocal point in firms' finances. It is the mix of various sources of debts and equity financing employed by banks to support operations in order to widen the entity's profit margins, absorb losses and keep company afloat





consistently (Odewole, Obadeyi &Akande,2023,Hishamuddin, Hameed, & Sidek, 2020). It determines banks' financial health, resilience and ability to withstand economic shocks and downturns in any prevailing circumstances (Okeke, 2023).

2.1 Capital Structure

Capital structure implies the composition of proportion of debts and equity financing present in an entity geared towards effective operations and management (Hishamuddin et al., 2020). It involves analysing the levels of equity capital, tier 1 capital, tier 2 capital, and debt financing within an entity during the specified period. The capital structure of banks are assessed through their financial ratios such as debt-to-equity ratio, leverage ratio, and capital adequacy ratio.

2.2 Debt-to-Equity Ratio

The debt-to-equity ratio is one of the significant financial metrics that determines the ratios of debt/equity financing in a company's capital mix (Okeke, 2023). It provides insights into how much a company relies on borrowed funds to finance its operations and investments. Previous studies have examined the linkage between the debt-to-equity ratios and financial outcomes, bank performance and stability. Alzoubi and Selamat (2019) investigated Jordanian banks and found a significant negative relationship between the debt-to-equity ratio and bank performance, suggesting that higher debt relative to equity adversely affect a bank's profitability.

2.3 Capital Adequacy Ratio

The capital adequacy ratio (CAR) is both statutory and regulatory requirement that measures either a bank's capital adequacy or its ability to absorb potential financial losses during a financial year or both. It compares a specific bank's capital profile which includes equity and debt structure to its risk-weighted assets. The CAR ensures banks maintain a sufficient capital buffer to withstand financial shocks and protect depositors' interests against arbitrary losses. Ozili (2017) examined Nigerian banks and concluded that higher levels of equity capital, reflected in a higher CAR, are associated with improved bank stability and a reduced likelihood of failure. This therefore suggests that a higher capital adequacy ratio of a bank positively affects bank performance and resilience.

2.4 Bank Performance

Bank performance is a multidimensional concept. It encompasses various financial measures, such as profitability, loan recovery, asset quality, liquidity, and solvency (Hishamuddin et al., 2020). It expresses various financial indicators that reflect and summarize banks' overall financial health and operational efficiency in an accounting year (Ozili, 2020). The common indicators of bank performance include profitability assessment which measures banks' return on equity and return on assets. Liquidity ratios which appraise banks' current ratio, liquidity coverage ratio, asset quality indicators which assesses non-performing loan ratios and solvency measures which centres on capital adequacy ratio (Anozie, Muritala, Ininm and Yisau (2023). Numerous empirical studies have explored banks' performance determinants and the associated factors that influence its outcomes. Tabak, Fazio and Cajueiro (2012) investigated Brazilian





banks and found that banks with higher levels of equity capital have lower default risk and higher profitability. This finding supports that adequate capitalisation and a lower reliance on debt financing contribute to improved bank performance. Therefore, banks' performance are closely related to capital adequacy ratio, debt-to-equity ratio, leverage ratio and are underlying contributory factors of banks' sound health and financial strenght. The findings from empirical studies suggest that higher levels of equity capital and a lower reliance on debt financing are generally associated with improved bank performance and stability.

2.5Capital Structure and Sick Banks

There is a crucial relationship between the banks' capital structure and its susceptibility to failure. The capital structure decisions made by banks are often significantly associated with the vulnerability to financial distress and the likelihood of failure (Alzoubi and Selamat (2019). Previous studies have examined the link between sick banks and their capital structure, shedding light on why they fell sick the factors. One major factor influencing banks' sickness is the level of leverage which measures the proportion of debt financing in the capital mix of banks. High leverage levels increase the risk of financial distress and make banks more susceptible to economic shocks and downturns (Ozili & Uadiale, 2018). Banks with insufficient capital buffers to absorb losses may face difficulties in meeting their debt obligations and maintaining solvency. The scenario often aggravates the likelihood of banks' sickness (Anozie, Muritala, Ininm and Yisau, 2023).

Hishamuddin et al., (2020) opined that the composition of capital, such as the proportion of tier 1 and tier 2 capital, impacts banks' ability to absorb losses and withstand financial distress. Banks with a higher proportion of high-quality capital, such as common equity, are generally more resilient to adverse conditions (Pham, Hoang & Pham, 2022). In contrast, banks with lower-quality capital, such as subordinated debt, face challenges in maintaining solvency and are more prone to failure. Banks' risk-taking behaviour also influences the relationship between bank failures and capital structure. The capital mix decisions of banks can affect their risk appetite, as the use of debt financing can create incentives for banks to take on higher risks to meet debt service obligations (Alzoubi and Selamat, 2019). Also,Ozili (2017) observed that inadequate regulatory oversight and lax enforcement of capital adequacy requirements weaken banks' capital position and increase the risk of failure. Therefore, effective regulatory frameworks which includes capital adequacy standards and risk-based supervision are essential in promoting sound capital structures and reducing the susceptibility of bank sickness.

2.6 Factors Influencing Banks' Sickness

Factors responsible for bank sickness are generally categorised into internal and external factors (Popoola & Sulaiman, 2020). Internal factors are the common banks' characteristics and decisions within banks that contribute to their sickness. Banks that fail to implement robust risk management frameworks and systems may be exposed to excessive risks, leading to financial distress, structural sickness and eventual failure (Ozili, 2020). Also, inadequate assessment of credit risk, improper valuation of assets, and weak internal controls undermine banks' financial stability(Oladejo,Odewole&Busari,2019). Weak corporate governance and





governance failures can result in misaligned incentives, agency problems, excessive risktaking, which commonly increase banks' propensity to failures (Igbinosa et al, 2022). The regulatory environment and supervisory practices also play a significant role in influencing banks' sickness or failures. Weak or inadequate regulation and results based supervision contribute to moral hazard, excessive risk-taking, and insufficient capital buffers (Ozili, 2017). Also, market disruptions, such as technological advancements or changes in customer preferences, create challenges for banks that fail to adapt and innovate.

2.7 Empirical Literature

Okeke (2023) examined Nigeria's banks' financial leverage and profitability from 2010 to 2021. The study population comprised eight listed DMBs. Descriptive statistics was applied. The findings showed that financial leverage negatively significantly impacts banks' profitability with bank size also having considerable influence on bank's profitability. Anozie, Muritala, Ininm and Yisau (2023) examined the connection between firms' capital mix and corporate performance of Nigerian companies in the oil sector. Multiple regression statistics techniques were adopted to analyse the data. Findings from the analysis show that long-term debt to total assets negatively influences the return on firms assets. It further showed that insignificant positive impacts were recorded on the ratios of total debt / total equity and short-term debt / total assets on company performance. Pham, Hoang & Pham (2022) evaluated the association between banks' capital mix and profitability of Vietnamese Money Deposit banks from 2012 to 2018 with unbalanced panel data set. The results of the analysis revealed that recoverable lendings are associated with the quality of assets and loans. Also, Abina & Akinola (2022), in their research between 1981 to 2019, investigated the linkage between capital structure and banks' performance. Results revealed that the debt ratio exerted negative relationship to the return on assets. The findings equally showed significant positive relationship between equity ratio and leverage ratio. Alzoubi and Selamat (2019) investigated the relationship between capital structure and bank performance of Jordanian banks in order to establish the linkage between leverage and bank performance. Panel data analysis was adopted. The findings from the study indicated a significant negative relationship between debt-t-equity and bank performance. The implication is that indicating that employing higher debt ratio relative to equity to finance banks' operations can snowball adverse effect on bank's profitability. The results highlight the importance of maintaining an appropriate capital structure to enhance bank performance. Furthermore, Cheng, Liu, and Zhang (2018) conducted an empirical study to explore the relationship between capital structure and bank performance in Chinese listed banks. Their study aimed to examine the impact of capital structure on the financial performance of Chinese listed banks. The researchers employed panel data analysis as their research method. The findings from their study showed that a high proportion of equity capital has a positive relationship to banks' profitability and financial stability.

2.8 Theoretical Framework

The study considered related theories among which are Trade off Theory, Agency Theory and Pecking Order Theory. The Tradeoff Theory suggests that there is an optimal capital structure that balances the benefits and costs of debt and equity financing (Modigliani & Miller, 1958).





According to this theory, firms, including banks, face a tradeoff between the tax advantages of debt financing, such as interest tax shields, and the potential costs of financial distress. Banks aim to optimise their capital structure by considering factors such as the risk of financial distress, tax benefits and bankruptcy costs. The tradeoff theory predicts that sick banks may have experienced difficulties managing their debt obligations, leading to eventual collapse. The Agency Theory focuses on the conflicts of interest between different bank stakeholders, such as shareholders, managers, and depositors (Jensen & Meckling, 1976). According to this theory, agency problems can affect capital structure decisions. Managers may have different risk preferences than shareholders, leading to suboptimal capital structure choices. Additionally, inadequate monitoring and misaligned incentives can contribute to excessive risk-taking and poor capital structure decisions. Sick banks may have experienced agency problems, which could have influenced their capital structure decisions and increased the likelihood of failure. The Pecking Order Theory (POT) therefore provides an anchor for the study as its theorectical framework which drives the entire research work. The POT proposes that firms, including banks, prefer internal financing over external financing (Myers & Majluf, 1984). According to this theory, banks finance their activities using internal resources such as retained earnings. When internal financing is insufficient, banks may resort to debt financing rather than new equity, as external equity issuance can send negative signals to the market. Sick banks may have faced constraints in accessing internal financing, leading to increased reliance on debt and potential difficulties in servicing their debt obligations.

3.0 METHODOLOGY

3.1 Data

Data for the study were obtained from the Nigerian Stock Exchange (NSE) Fact Book and the selected banks' Annual Financial Statements for the relevant period. The population of the study was made up of twenty-four (24) Deposit Money Banks in Nigeria.

The study applied a purposive sampling technique in selecting three sick banks in Nigeria: Polaris Bank, Union Bank, and Heritage Bank according to the latest Central Bank Bulltin(CBN,2023). The study concentrated on the banks' solvency, liquidity, profitability in relation to return on equity, equity financing, debt financing, debt-equity ratio, and firm size and loan recovery ability.

3.2 Model Specification

The model for the study is in line with modified Nwude and Anyalechi (2018) model which is stated below:

ROE = f(EQ, DB, DE, FZ) ------ 1 $ROE_{it} = \beta_0 + \beta_1 EQ_{it} + \beta_2 DB_{it} + \beta_3 DE_{it} + \beta_4 FZ_{it} + U_{it} - - - - - - - - 2$

where; ROE stands for Return On Equity in the model; EQ, as symbol for Equity Finance, DB stands for Debt finance; DE as symbol for Debt-Equity Ratio, FZ symbolizes Firm size, f = functional term, $\beta_0 = constant$, β_1 , $\beta_4 = coefficient parameters$, $U_{it} = error term$.





3.3 Hausman Test

The Hausman Test was carried out in the study to verify whether the model was appropriate for acceptance.

HT Hypothesis:

- H₀: Random effect model is appropriate
- H₁: Fixed effect model is appropriate

The Hausman Test was based on statistically significance of the probability value. Fixed effect model is always adopted where the probability value is significant whereas if otherwise, the random effect model is adopted.

4.0 INTERPRETATION OF RESULTS AND DISCUSSION OF FINDINGS

4.1 Descriptive Analysis

The relevant variables generated in the study for mean, minimum, maximum, and standard deviation values were shown in Table 4.1, along with a descriptive description of each variable.

The table demonstrates that return on equity, a measure of financial performance for banks, were stated at an average ROE of 7.984371 and a range of 4.139226 to 10.70886 with a standard deviation of 3.638612. The average cost of debt and equity financing, respectively, was 6.576106 and 5.559388, with lowest and highest values of 0.867632 and 0.748188 and 3.307839 and 2.629244 standard deviation of 3.458129 and 3.876444. Similar to debt to equity ratio is the firm size, with mean values of 5.098472 and 9.089637 and range from a minimum of -0.214670 and 8.491157 to a high of 8.321750 and 9.609285 with a standard deviation of 3.263485 and 1.342747 respectively. The explanatory variables clearly exhibited an appropriate amount of variance with the dependent variable.

| Variables | ROE | DF | EQ | DER | FZ |
|--------------|----------|----------|----------|-----------|----------|
| Mean | 7.984371 | 6.576106 | 5.559388 | 5.098472 | 9.089637 |
| Median | 10.43537 | 9.126186 | 7.412226 | 7.520648 | 9.142859 |
| Minimum | 4.139226 | 0.867632 | 0.748188 | -0.214670 | 8.491157 |
| Maximum | 10.70886 | 9.865906 | 8.389632 | 8.321750 | 9.609285 |
| Std. Dev. | 3.638612 | 3.458129 | 3.876444 | 3.263485 | 1.342747 |
| Observations | 30 | 30 | 30 | 30 | 30 |

| Table 4.1: | Descriptive | Statistics |
|------------|-------------|-------------------|
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Table 4.2 shows the summary of correlation analysis for the study. It reveals that all of the explanatory factors exhibited positive correlations with bank performance. In contrast to business size (control variable), which has a moderate but positive link with bank performance, debt financing, equity financing, and debt-to-equity ratios all showed extremely significant and linear relationships with bank performance.





| Variables | ROE | DF | EQ | DER | FZ |
|-----------|----------|----------|----------|----------|----------|
| ROE | 1.000000 | 0.980890 | 0.968428 | 0.989746 | 0.013589 |
| DF | 0.980890 | 1.000000 | 0.997232 | 0.996881 | 0.063153 |
| EQ | 0.968428 | 0.997232 | 1.000000 | 0.990878 | 0.083811 |
| DE | 0.989746 | 0.996881 | 0.990878 | 1.000000 | 0.064586 |
| FZ | 0.013589 | 0.063153 | 0.083811 | 0.064586 | 1.000000 |

 Table 4.2: Correlation Analysis

E-view 10 (2023)

Table 4.3 presents the results of Pooled OLS Regression Model. The results showed that debtequity ratio size has a large but adverse influence on bank performance in Nigeria, while debt financing exerted an unfavourable but little impact on the bank performance. It further showed that equity financing has a favourable but minor impact on bank performance (BP) while firm size has a favourable and significant impact on how well Nigerian banks operate. Therefore, a one percent change in the value of debt financing (DF) would significantly drop bank performance (BP) by 5.7 percent, but equity financing (EQ) and firm size (FZ) will raise the level of bank performance by 7.9 percent and 23.7 percent respectively. The debt-to-equity ratio, which is 74.2%, substantially influences the bank's performance in any circumstance. The explanatory variable's ability to explain variation in the dependent variable is demonstrated by the high R2 value of 49.72%. However, the model is statistically significant when examining the real importance of the F-statistics from its probability value with the assumption that the three banks are the same operating within the same market risks and facing the same operational challenges.

4.3 Pooled Ordinary Least Square Regression Model

Table 4.3: Pooled OLS Regression Models Result Extracts

| The Model I (Dependen | t Variable = ROE |) Period | (2012 - 2021) |
|-----------------------|------------------|----------|---------------|
|-----------------------|------------------|----------|---------------|

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------|-------------|------------|-------------|--------|
| DF | -0.057158 | 0.026088 | -2.190929 | 0.0411 |
| EQ | 0.079588 | 0.037581 | 2.117769 | 0.0476 |
| DE | -7.42854 | 19.39027 | -3.477441 | 0.0019 |
| FZ | 2.37455 | 9.623800 | 2.221010 | 0.0356 |
| С | 9.03823 | 6.365495 | 2.990848 | 0.0062 |
| R-squared | | 0.497 | 7274 | |
| Adjusted R-s | squared | 0.416837 | | |
| F-statistic | | 6.182207 | | |
| Prob(F-stati | stic) | 0.001333 | | |
| Durbin-Wats | son stat | 1.422230 | | |

Source: EViews 10.(2023)

Estimated Pooled OLS Regression Models

ROE = 9.03823 + 0.079588 * DF - 0.057158 * EQ - 7.42854 * DER + 2.37455 * FZ





Table 4.4 displays the fixed effect regression model for the period under consideration. The calculated model showed that the business size and equity financing coefficients are inconsistent with the anticipated economic result beforehand. However, because all of the determinants were still important, firm size and the debt-to-equity ratio significantly affect bank performance in Nigeria. Conversely, debt financing, equity financing, debt-to-equity ratio, and firm size negatively affect bank performance by 593.1, 0.029, 412.83, and 1452.0 percent, respectively. The change in the dependent variable caused by the explanatory factors is satisfactorily explained by the period's R2 value of 63.02%. The model is statistically significant in overall and based on the statistical significance of its F-statistics.

4.4 Fixed Effect or LSDV Model

| (De | (Dependent Variable = ROE) Period (2012-2021) | | | | | | |
|----------|---|------------|-------------|--------|--|--|--|
| Variable | Coefficient | Std. Error | t-Statistic | Prob. | | | |
| С | 77.05061 | 20.97511 | 3.673431 | 0.0013 | | | |
| DF | -5.931000 | 2.920553 | -2.030780 | 0.0565 | | | |
| EQ | -0.000299 | 0.000154 | -1.935862 | 0.0653 | | | |
| DER | -41.28339 | 19.62214 | -2.103919 | 0.0465 | | | |
| FZ | -145.2062 | 58.57334 | -2.479049 | 0.0209 | | | |
| | R-squared | 0.63024 | 46 | | | | |
| 1 | Adjusted R-squar | 0.53378 | 88 | | | | |
| | F-statistic | 6.533909 | | | | | |
| | Durbin-Watson s | 1.598186 | | | | | |
| | Prob(F-statistic | ;) | 0.00039 | 95 | | | |

 Table 4.4: Fixed Effect or LSDV Regression Model Result Extracts

Source: *EViews* 10(2023)

Estimated Pooled OLS Regression Models (Fixed Effect Model)

ROE = 77.05061 - 5.931000 * DF - 0.000299 * EQ - 41.28339 * DER - 145.2062 * FZ

Table 4.5 presents the outcome for the ramdom effect model. Nearly all the factors significantly affect bank performance. However, debt financing and debt- to- equity ratio have a detrimental influence on bank corporate performance. From the findings, therefore, firm size and debt financing substantially influence bank performance by 670.4 percent and 23.5 percent respectively, while equity financing and debt- to- equity ratio negatively impact bank performance by 33.04 percent and 674.2 percent, respectively. However, it is evident that the R2 value of 49.72 shows that the stochastic error component accounts for the majority of the variance in the dependent variable, with the independent variables being responsible for the remaining portion. The random effect model is statistically significant because of the importance of the F-statistic value. The Durbin-Watson test also shows that the model does not exhibit autocorrelation.





4.5 Random Effect Model

| | (Dependent Variable = <i>ROE</i>) Period (2012-2021) | | | | | | |
|----------|---|------------|-------------|--------|--|--|--|
| Variable | Coefficient | Std. Error | t-Statistic | Prob. | | | |
| С | 19.03823 | 5.942248 | 3.203876 | 0.0037 | | | |
| DF | 0.235104 | 0.065229 | 3.604288 | 0.0020 | | | |
| EQ | -0.330484 | 0.077581 | -4.259837 | 0.0005 | | | |
| DE | -67.42854 | 18.10100 | -3.725128 | 0.0010 | | | |
| FZ | 21.37455 | 8.983905 | 2.379205 | 0.0253 | | | |
| | R-squared | 0.497 | 274 | | | | |
| | Adjusted R-square | ed | 0.416837 | | | | |
| | F-statistic | | 6.182 | 207 | | | |
| | Durbin-Watson sta | 1.422 | 230 | | | | |
| | Prob(F-statistic) | | 0.001 | 333 | | | |

| Table | 4.5: Rar | ıdom F | ffect R | Regression | Model | Result | Extracts |
|-------|-------------|--------|---------|-------------|-------|---------|----------|
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Source: EViews 10. (2023)

Estimated Pooled OLS Regression Models (Random Effect Model)

ROE = 19.03823 + 0.235104 * DF - 0.330484 * EQ - 67.42854 * DER + 21.37455 * FZ

4.6 Hausman Test

The probability value of 0.0231% for the cross-section random in Table 4.6, which is less than 5%, shows that the fixed effect model would be appropriate. However, it is obvious from the estimated fixed effect model in Table 4.4 that debt financing, equity financing, and the debt-to-equity ratio all negatively impacted the dependent variable (bank performance). This shows that even while debt, the debt-to-equity ratio, and equity financing are some of the methods a bank may employ to improve its performance, the debt-to-equity ratio and the firm size are the most efficient strategies to boost improved performance.

Table 4.6: Hausman Test Results Extracts

| | Period (2013-2021) | | | | |
|----------------------|--------------------|--------------|--------|--|--|
| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. | | |
| Cross-section random | 11.328199 | 4 | 0.0231 | | |

Source: EViews 10.

4.7 Discussion of Findings

The study examined the capital structure of sick banks and the implications on corporate performance and loan recovery on Deposit Money Banks in Nigeria. Findings revealed that the banks' non-performing loans were so dominant during the period which negatively affected bank corporate performance. Also the proportion of debt financing to equity fund was negatively structured and impeded the financial strength of the banks. The occurences of poor





lending practices within the banks as evidenced by the high proportion of non-performing loans such as an absence of incentives to discover problem loans at an early stage, poor underwriting skills and aggressive loan expansion programme were prominent in the banks. Prevalence of loan crisis indicated banks' poor credit underwriting standards. The possibility was that some of the banks' management during the period might have overroden banks' existing procedures and policies such as connected lendings and limits on concentration with adverse effect on bank performance (Alzoubi and Selamat, 2019). The implication therefore is that the highinterest rates on loans during the period and the default of debtors were the products of bad loans and advances. Morealso, the analysis of debt profile showed that the profile of nonperforming loans among the management was heavy among the banks. The banks could not maintain an independent diversified loan portfolio devoid of executive interference. Excessive loan concentrations channeled towards a particular industrial sector aggravated the banks' liquidity and solvency throughout the appraisal periods. Therefore, banks' performance are functionally related to debt-to-equity ratio, leverage ratio which determine banks' sound health and financial strength. This is in line with the findings of Anozie, Muritala, Ininm and Yisau (2023). Furthermore, the banks experienced sharp declines in most of the vital ratios such as capital ratios, liquidity ratios and solvency ratios. This was evidently shown in overall losses in the banks' operations, with the poor performance on the banks' operational quality significantly affected the public confidence which resulted to panic deposit withdrawals by the depositors. The preponderances of high leverage levels among the banks increase the risk of financial distress and subjected them to more economic shocks and downturns (Ozili & Uadiale, 2018). The summary of banks' cash flow problems was a direct overriding effect on corporate performance coupled with weak competitive edge and inability to react promptly to strategic innovations, technology, competition and other changes in the emerging market place (Alhassan Ibrahim & Shani 2021, Ünvan & Yakubu, 2020; Okeke, 2023).

5.0 CONCLUSION

The capital optimal mix of a sick bank is central to the optimum performance of the bank. The capital structure arrangement of a sick bank is significantly influenced by the degree of debt financing and largely shaped its performance. A rise in the capital structure caused by the employment of a larger equity-debt ratio tends to hamper the corporate's performance. The sick banks are characterized with the following symtoms: one, there were unimaginable massive poor lending practices within the banks. Second, banks' management unethical practices overrode insiders' abuse. Third, excessive loan concentrations and lendings towards one geographic or industrial sector. Four, rapid increase in risk- weighted assets with sharp declines in their capital ratios. Five, unresolved loan repayment with poor bank credit underwriting standards. Six, depletion of the public confidence. Seven, the banks suffered serious cash flows problem which worsened the banks' performance. Eight, inadequate management processes and massive risk profile. The risk-management was poor. The banks were unable to manage their market risk, operational risk, interest rate risk and strategic risk.





6.0 RECOMMENDATION

Deposit Money Banks' management is saddled with the responsibility of ensuring adequate capital mix is in place to balance the financial and business risks associated with banks' operations and loan management. The debt-to-equity ratio might be adjusted frequently to compare banks' available capital structures due to the tax benefit, which would reduce the overall cost of capital.

The banks should streamline loan administration to avert overwhelming challenges of aggressive loans expansion programme. Banks' management should come up with and set rigid limits on connected lending.

Facilities to directors within the banks, on the basis of executive positions, force of personality or dominant ownership without adequate collateral securities should be outlawed by the banks. The banks should come up with blueprints on diversified loan portfolio. Excessive loan concentrations on specific industrial or geographic areas weakens effective loan recovery. The sick banks should improve their capital ratios with a rapid increase in the company portfolio or risk -weighted assets so as to recover losses in the banks' operations.

The banks should engage in technogically driven services to streghen their corporate ability to react promptly to rivalry or competition in the industry and other prevailing changes within the sector to match up with latest innovations and attract public confidence .Each sick bank should establish prudent risk limits in relation to its financial strength and risk management capabilities.

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